Capital Inflow, Financial Development and Economic Growth in South Asia

Dr. Sabahat Subhan (Corresponding Author)
Assistant Professor
Department of Economics
NUML

Kamroon Taj
M.Phil Scholar, Department of Economics
NUML

Abstract

Capital inflow and financial development has gained significant importance in the developing as well as in developed countries. This study analyzes the relationship of capital inflow and financial development with economic growth of South-Asian countries (Pakistan, India, Sri Lanka, and Bangladesh).

The data is used for the period of 1980-2010 to analyze the relationship of capital inflow and financial development with economic growth in South Asia. The model is estimated by Panel Generalized Method of Moment (GMM) and lagged explanatory variables are used as instrumental variables. The validity of instrumental variables is checked by Sargan J. test. Further three models are estimated; Model 1: all determinants are included, Model 2: M2 is excluded due to high multi-co linearity between FD and M2 and Model 3: Model 2 is used for common effect model with country specific dummies whereas Sri Lanka is used as base category for dummy variable.

The one period lagged economic growth has positive and significant impact on current economic growth. Whereas, capital inflows have negative and insignificant impact on economic growth rate of South Asian countries. Financial accumulation. While a financial development based

upon financial intermediation, which plays a vital role in the

investment sector and promotes the saving rate and

proficiently allocates a capital inflow in the economy.

Capital inflows strongly associated with the investment, but it also impacts on trade integration and financial development. A past studies show that in those countries where capital inflow has been utilized in an efficient way, there trade integration reached at certain level of development; it reveals that the financial development is highly associated with trade integration (Christopoulos. DK, 2004). Past studies also revealed that many developing economies are facing trade barriers which discourage the trade integration and financial development and as a result in a slow process of growth. While it also points out that those countries who have a strong industrial sector should positively influence the trade and economic growth of the country.

development, terms of trade and remittances have positive and significant effect on economic growth. The results indicate that FDI, inflation, and government consumption have insignificant effect on economic growth rate.

Introduction

Over the past two decades capital inflow has rapidly increased in the developing countries, especially in the region of Asia. Net private capital flows to the developing countries have been calculated as US$230 billion in 1995-97 per year (World Bank 1998). And it is considered as one of the factors of economic development and growth for least developing countries, which leads to rise in the investment, technological and skill development etc.

Many ideas and theories explain the importance of inflow, and it shows that capital inflow has a chain impact on economic growth. Latest theories linkup the technological factor with capital inflow and economic growth, which further enhance the importance of capital inflow. And it also elaborates that capital inflow has boosted-up the financial development which promotes the economic growth in the economy.

Capital inflow has a positive association with financial development and it has a significant impact on the efficiency of   capital

However a highly industrialized economy promotes international trade and financial deepening (Adams. S, 2009; Hermes & Lensink. 2003). A high ratio of inflow and trade integration endorses human capital accumulation, financial development and economic growth. Moreover, many economies liberalized their financial and capital account to attract the new foreign capital which is considered as a major source of development. There is also a strong evidence that capital inflows in the middle and low income countries have encouraged the economic growth but not in a productive way, because the financial system and markets are less developed in those countries.

The inflow in developing countries had reached at its top level before 2000 (World Bank 1998). In 2001 remittances in low income developing countries is 1.9 % of GDP, then the middle income countries i.e. 0.8% of GDP. After 2000 India, Mexico, Philippine and Morocco, declined their tax rate and reformed their investment policies to attract new investment (World Bank, 1998). Many researchers viewed that a drastic decline in capital inflow is due to a financial crunch, which adversely affects at global level. This should reverse back the process of growth in the developing countries as well.

This decline emerges huge pressure on the government to reconsider the economic policies to gain the sustain level of development and growth. Many developing countries break down trade and financial constraints in order to utilize the inflow for rapid economic growth. European and American countries such as USA, UK, Canada, and Germany, etc. had largely gained from the capital inflow by promoting the industrial sector.

While the pool of industrialized countries with highly sophisticated financial system have moved the capital into developing economies in a form of multinational investment. This transfer of capital becomes a major source of technology diffusion, which enhances the productivity of labor and product. In 1980's capital inflow raised a technological rate of development which promotes the human capital, in several countries (Varmani, 1997). It has shown that economy of China had been drastically improved. They efficiently utilized the inflow and enhance the economic growth significantly.

For developing countries, foreign inflow is a major source of income, this has a chain effect on the economic growth of the economy. This inflow encourages the agriculture and industrial sector in the developing countries. But the other factor has negative influenced on the economies of developing countries such as poverty, corruption, lack of education, political instability etc. These factors are a major hurdle in the development of economic growth. There is strong evidence that countries which overcome on these issues are stepping in the advance development process. In these countries government made reforms and utilized the capital inflow in an efficient way and increases the productivity of all sectors in the economy.

Capital inflows have a positive impact on the economic growth; it is a main source of investment in the country. And capital inflow has strongly influences the economic growth. The ratio of foreign inflow in developing countries has been raised for the period of 1960-2000 and accelerate the economic growth of the developing countries.

Economic growth rate of the developing countries is low due to the political instability, low productivity of physical and human capital, low technological development, lack of research and development, etc. These factors influence the economy and become a hurdle for developing the economy.

Capital inflows and fianical development havea a positive impact on economic growth of South Asian Countries. They are major source of growth in the country. it has a significant importance in the present situation of South Asian Countries to work on this topic. This study will give a clear picture of relationship between capital inflow, financial development and economic growth of South Asian Countries.

The objective of this paper is to analysis the impact of capital flow on economic growth of South Asian Countries and also see the effect of financial development on economic growth of South Asian Countreis.

Heathen-J. A &Iranpist. M (2005) studies on foreign aid and economic growth: New Evidence from Panel Co-integration while taking panel system investigation used for a period of 1974-96 and using panel co-integration methodology. Estimation clarifies that foreign aid has a positive and significant effect on economic activity in each country, which further explain that foreign capital flows can have a favorable effect on real income by supplementing a domestic savings.

Prasad, Rajan and Subramanian A (2007) work on foreign capital and economic growth and gathers the data from 1970-2005.The study adopts GMM techniques, OLS panel regression for the estimation of foreign capital and economic growth. The results make clear that non industrial countries depend on foreign capital are not grown faster than those that have interdependence. There is a growth premium associated with these countries not relying on foreign finance. The reline of these countries on domestic rather than foreign saving to finance investment comes at a cost of investment and consumption. The research points out that it may be necessary for the countries of absorbing more capital, only some forms of foreign capital may play a direct role in the development process.

Another supportive study of financial integration and economic growth by Yang. X (2010) explores another dynamic aspect of growth through financial integration. This determines the period of 1960-2008 for 83 developing countries in the characteristic of VAR and GMM methodology. Estimation comes out that a capital inflow having a significant impact, economy growth. It shows that a portfolio inflows and investment in emerging countries result a positive and significant impact on economic growth and financial development.

Ahmad Klasra. M (2011) investigates a comparative relationship between FDI Trade openness and economic growth for the period of 1975-2005 by adopting Auto Regressive Distributed Lag Modeling (ARDL) technique. The study advocates that in the short run there is a bi-directional relationship between trade openness and export in developing countries, but in some countries the results are varied on the basis of political, economic, industrial conditions in the countries, whereas in the long run the FDI exerts a positive impact on growth and financial development.

Conceptual Framework and Methodology

The process of development is a series of successive stages of economic growth through which all countries must pass through. In the primary theories of development, there is a concept of right quantity of saving, investment and foreign aids which are the necessary elements of the developing countries. While in the era of 1970's a theory of structural changes replaced the linear stage of growth theory which was mostly used by developing countries.

Afterwards, the international dependency revolution is more radical and it analyzed the domestic relationship, institutional and structural economic rigidities, and resulting proliferation of developed economies and dual societies both with and among the nation. For this state of affairs emphasized on new policies, such as employment opportunities, income equalities, poverty reduction, high standard of living and sustainable economic growth. In 1980's and 90's new policies of employment, growth, and development along with the role of free markets, open economies, privatization and others are emphasized Bailliu, J.N. (2000).

In 1950's, Rostow's theory of growth elaborated that every country must pass through some stages from under development to a developmental level. But after 1950's a series of the new growth theories are generated in which a growth theory of Harrad and Domar had gained significant importance at that time.

Harrad Domar Growth Theory illustrated that in every country there must be an equal level of saving and investment for the desired level of growth in the country. This shows that there is a positive relationship between saving, investment and output.

$S = I$

In 1956 Solow and Swan presented the growth model, which suggest that technological changes drive an economic growth which is termed as endogenously. Whereas the Romar Growth Model illustrates that a factor of technology is termed as exogenous, and this highlighted that,

$Y = AK$

Whereas;

K = composite of capital and labor input

A = MPC (Marginal Propensity to consume)

$MP_K = dy/dk = A$ (long run growth is possible)

Since technology depends upon the investment (i.e. The process of investment generates new ideas, knowledge and learning)

$A = g(K)$ $dA/dk > 0$

$A = K^\beta$ $\beta > 0$

$Y = A k^\alpha L^{1-\alpha}$

More studies analyze the growth and development while one of them Jalil, A., & Ma, Y. (2008) by follows:

$A = g(K)$

This is only done through learning by doing, in this eq. A is considered as an exogenously with respect to time.

Theoretical Foundations

A theoretical analysis has been assessed under the assumption that a capital inflow has led to higher economic growth. Further, it also views that the financial development is a major component of economic development. Because it has a strong association with the economic growth and foreign inflows in the country. While this relationship has been verified in the light of endogenous growth model.

In this study, we find that the foreign inflows can enhance the economic growth, via high investment or rising in the financial intermediation, and it also points out the role of financial system along with the high rate of foreign inflows for economic development in the South-Asia.

The relationship of a capital inflows, financial development and economic growth are examined with the help of endogenous growth models. And this relationship is an analysis by Pagano in 1993, by linking up the financial development and growth with the help of endogenous growth models. And this model assumes that the economies are closed in the start which further expand with the introduction of Capital Inflow.

While in a closed economy the aggregate production function can be expressed as.

$Y_t = AK_t$ (1)

And for a competitive market economy this form of production function can be reduced. Romer (1986) analyzes that each firm faces a technology with constant returns to scale, but productivity is an increasing function of the aggregate capital stock. It assumes that gross investment is equal to the capital stocks depreciate at the rate of δ

$I_t = K_{t+1} - (1-\delta) K_t$ (2)

In this model, financial intermediaries having a right to convert a saving into the investment, by assuming that there is a closed economy, which point out that in capital equilibrium market, saving by domestic resident must equal to the investment.

It further illustrates that in the economy, Φ is the fraction of saving available for investment while $1 - \Phi$ is services charges get by the financial intermediation for converting a saving into the investment.

$\Phi S_t = I_t$ (3)

Further it also points out that there is a steady growth rate in a closed economy with financial intermediation, and innovation or government policies. This shows that saving are efficiently allocated into investment which only possible through an increase in the financial intermediation who efficiently do at work, and leads to decrease the rate of lending borrowing in the economy.

Economic growth is positively influenced by an increase in financial intermediation, it is the responsibility of financial intimidation to transfer the capital into high return productive projects. Endogenous growth model assumes that improvement in the allocation of capital leads to high economic growth and enhances the productivity of capital. Moreover Endogenous Growth Model is extended by including the aspect of international capital flows. This should raise the opportunity of more investment in the economy and has a chain impact on economic growth. Thus the presence of financial inflows into the capital equilibrium market can be expressed as.

$\Phi^* (St + NCF_t) = I_t$ (4)

$I_t^* = S_t^*$

NCF = International Net Capital Flows, therefore a steady state growth rate is

$g^* = A^* I^*/Y - \delta = A^* \Phi^* (S+NCF/Y) - \delta = A^* \Phi^* s^* - \delta$ (5)

Equation (5) is a steady growth rate of AK model (simple endogenous growth model gives a constant saving rate of endogenous growth) with financial intermediation and international capital flows in the open economies. This shows that capital inflow having a positive influence on the economic growth. This model highlight on various areas that the economy should attain a desired level of sustainable growth through raise in capital flow which leads to increase in investment rate.

This framework emphasized that the g^* output must be greater than g and similarly s^* should be greater than s. The net capital inflow always used for investment which is associated with positive spillovers, and it also boosts up growth. Investment in the economy through foreign inflow generate the positive externalities in the economy, and increase the productivity, human capital, and skill development etc. This make the economies more competitive in international market and generates more sources of capital inflow in a form of foreign reserves.

Financial inflows in terms of FDI result in skill and entrepreneurial development along with transfer of technology which expand the industrial sector by increasing the efficiency of labor and the productivity of capital. A capital inflow influence on economic growth if there is an increase in the number of financial intermediation who efficiently allocates the financial credit and increase the saving rate, which further enhance the efficiency of capital through a high rate of investment.

Empirical Model

Capital inflow has a positive impact on economic growth and financial development plays a vital role in such progressive development. The other traditional ingredient

are also included like human capital, trade, money supply. In this study a panel data methodology is used to estimate a cross country growth, regression analysis of South Asia, in this methodology there is a possibility for controlling a country specific effects.

Financial development along with other determinants effects economic growth described by the following relationship suggested by Barror (1990).

$\gamma_i = \alpha + \beta_1 FD_i + \beta 2X_i + V_i$ (6)

γ_i= rate of growth of country i

FD = indicator of Financial development

X = determinant of growth

V = error vector

Barror (1990) model assumes that economy is a steady state; while explanatory variables capture differences in steady state growth rates across countries. This specification can be clarified what determines the differences in steady state growth rates across the countries (consistent with and endogenous growth model).   While in the estimation of capital inflow and growth it is necessary to control other growth determinants to ensure that the estimates captures the effect of capital flows on growth and not the influence of some other variables.

The model specified in the expectation of the variable in which per capita growth plays an important role, FDI, Investment, Trade, Remittance and Human Capital (education factor) coefficients are positively expected. Following the Barror (1990) our regression equation becomes:

$Y_{i,t} - Y_{i,t-1} = (\alpha-1)Y_{i,t-1} + \beta X_{i,t} + \eta_i + \varepsilon_t$

By including the determinants of growth the extended model take the following form

$Ln Y_t = \alpha + \beta_2 (Ln FDI_t) + \beta_3 (Ln REM_t) + \beta_4 (Ln FD_t) + \beta_5 (Ln M2_t) + \beta_6 (Ln TO_t) + \beta_7 (Ln C_t) + \beta_8 (Ln Lit_t) + \beta_9 (Ln INF_t) + \varepsilon_t$

Dependent Variable

Y_t= GDP Growth Rate

Explanatory Variables

FDI = Foreign Direct Investment

FD = Domestic Credit Ratio to GDP

M_2 = Money Supply

TO = Trade Openness (Import+Export/GDP)

C = Government Final Consumption to GDP

LIT = Adult Literacy Rate

INF = Inflation Rate

In analyzing the relationship of capital inflow, financial development and economic growth in South Asia, we employ the panel GMM, results in consistent estimation of panel data analysis of cross countries. This technique highlights a major econometric problem which comes in the estimation of cross countries regression analysis, such as: explanatory variable in cross country growth, regression are likely to be endogenous, it deals with individual heterogeneity.

This overcomes on the inconsistent estimators and the country specific effect which is correlated with at least one of the explanatory variable in the equation. Per capita GDP is correlated with country specific effect and now become the equation dynamic:

$Y_{i,t} - Y_{i,t-1} = (\alpha-1)Y_{i,t-1} + \beta X_{i,t} + \eta_i + \varepsilon_t$

Y= Natural log of real GDP

X = set of explanatory variables (growth determinants)

η = unobserved country specific effect

In panel estimation techniques, we estimate the model with fixed effects and random effect for cross country analysis.

Data Source

The data collected for the South Asian Countries (Pakistan, India, Bangladesh and Sri-Lanka) for the period of 1980-2010 to analyze the relationship of capital inflow, financial development and economic growth. The data collection source is given Appendix A (Table 1A).

This study analyzes the relationship of capital inflow, financial development and economic growth in South Asia by using Panel data for the period of 1980-2010. To analyze the impact of inflow and financial development, this study apply Panel GMM Model for South Asian Countries.

Descriptive Statistics of Data

The analysis begins with descriptive statistics of data, table 1 shows that FDI is very low on average i.e. 0.784, it shows that due to political instability inthese South Asian countries whereas FDI is low in this region.

Financial Development is 43.815 which is high and it indicates that on average South Asian countries have a financial development through domestic credit to GDP ratio. Table 1 shows that half of the population of South Asian countries is literate, which exert a positive impact on economic development but not at desired level, this is just beacause of low subsidized education policy by the government in South Asian Countries.

Government consumption expenditure on the the average is 9.584, which is due the the low return projects of the government commenced in the countries, apart from this lack of political instability also shows a negative side of government consumption in South Asian Countries.

From the result in table 1 shows that the inflation rate is 8.621 on average though in South Asian countries inflation rate is unstable because of inappropriate economic policies and other economic factors which adversely impact on economic growth of the country.

Remittances of the South Asian Countries is 4.472 on average, though the ratio of remittances in these countries is very high because large ratio of workers are migrated to middles east and European countries. And from those countries a high saving is transferred to South Asian Countries.

Table 1 shows that financial development, and M2 are 43.815 and 38.105 respectively on average. This ratio is little bit high because goverrvrnment started emphasise on the development of financial institution and implemented some strong and sound policies of finaical development in the country to enhance the economic growth and achieve the desired goals.

While the terms of trade 34.442 on average in South Asian countries this ratio is not satisfactory because South Asian countries are labour intensive countries. Which export the raw material in the international marketed. Due to the labour intensive charchteristics of South Asian countries the trade openness is very low as compare to the other countires. Other economic factor such as country trade policy, Human capital and technology also impact on trade openness, which result in low level of trade openness.

Table 1

Discriptive Statistics of Varaibles

South Asian Countries	Mean	Median	SD
FDI	0.784	0.615	2.857
FD	43.815	46.135	12.048
GCON	9.584	10.315	3.332
Econmic Growth Rate	4.951	4.945	2.116
INF	8.621	8.135	4.493
LIT	52.675	47.490	22.913
M2	38.105	37.695	11.817
REM	4.472	3.930	2.552

	FDI	FD	GCON	G	INF	LIT	M2	REM	TOT
FDI	1								
FD	0.42	1.0 0							
GCON	0.29	0.5 2	1.00						
G	0.09	0.4 0	0.11	1.0 0					
INF	-0.1 1	0.0 2	0.14	-0.1 8	1.0 0				
LIT	0.45	0.1 0	-0.26	0.1 9	0.2 7	1.0 0			
M2	0.48	0.8 7	0.35	0.4 9	0.2 5	0.0 6	1.0 0		
REM	0.28	0.2 2	0.06	0.0 3	0.0 3	0.3 8	-0.1 4	1.00	
TOT	0.48	0.1 1	0.15	-0.2 0	0.2 8	0.4 0	0.0 2	0.65	1.00

Panel Unit Root Test
To see the charactersitics of data, study applies the panel unit test of Im, Pesaran and Shinn to check the stationarity of data and all variables are found to be integrated of order one.

Table 3

Panel Unit Root Test

Name of the variable	t-stat	Prob	Integ
Economic Growth rate	-4.38*	0.000	I(1)
FD	-4.22*	0.00	I(1)
FDI	-4.34*	0.00	I(1)
Inf	-5.27*	0.00	I(1)
Lit	-5.13*	0.00	I(1)
M2	-5.62*	0.00	I(1)
REM	-5.39*	0.00	I(1)
TOT	-4.37*	0.00	I(1)

Note: Im-Pesaran and Shinn panel unit root test is applied with null hypothesis that unit root process exists, all variables are significant at 1 % indicating integarated of order one.

TOT	34.442	30.520	17.902

Correlation Matrix

Correlation Matrix of all the variables included in the model are reported in Table 2. There is positive correlation of M2, Remittances and terms of trade with economic growth rate, whereas there is negative correlation of literacy rate and inflation with economic growth rate.

Table 2
Correlation Between Variables

Test for Individual Effects

Before carrying out panel estimations, it is necessary to check the nature of the data and choose an appropriate estimation technique. The important issues that must be addressed are, to check that whether individual country effect exists or estimate a pool equation with both common intercept and slopes, if individual effects exist whether they are period specific or cross-section specific in that case we have to apply fixed effect model. However, as the number of cross section is less than time period, only four coutries with 30 years of data so random effect model can not be applied. Country specific effects are omitted under the pooled or common effect model.

The results of the redundant fixed effects are presented in Table 4 show both of the F-test and the Likelihood function (Chi-Square test) favor fixed effect model as the correct specification in the third case.

Table 4

Individual Effects Test

Effects Test	Stat	d.f.	Prob.	Conclusion
Cross-section F-Statistic	1.39	(3, 107)	0.28	Fail to reject H_0 of redundancy
Cross-section Chi-Square	4.80	3	0.20	Fail to reject H_0 of redundancy

Panel Data Estimation Results
The analysis is conducted to show the relationship of capital inflow, finaical developmemt and human capital on economic grwoth. Lagged per capita GDP is added as it captures the financial convergence effects suggested by neo classical framework. This makes the equation dynamic panel model and OLS is not suitable due to endogenity issue. The model is estimated by Generalized Method of Moment (GMM) and lagged explanatory variables are used as instruments. The validity of instruments is checked by Sargan J test. The model is divided into three models and is specified as;
Model 1: all determinants are included in this Model
Model 2; M2 is excluded due to high multicolinearity between FD and M2.

Model 3; Model 2 is used for common effect model with country specific dummies where Sri Linka is used as base category.

Table 5

Estimation of Economic Growth Models

Variables	Model 1	Model 2	Model 3
Growth(-1)	0.17 (1.89) ***	0.26 (2.76) ***	0.16 (1.88) **
FDI	-0.14 (-0.41)	-0.11 (-0.44)	-0.11 (-0.30)
REM	0.18 (1.80) **	0.07 (1.91) **	0.18 (1.80) **
FD	0.05 (1.36)	0.04 (2.84) ***	0.05 (1.88) **
M2	0.07 (1.22)		
TOT	0.03 (0.88)	0.04 (1.83) **	0.06 (1.82) **
Inf	-0.01 (-0.03)	-0.02 (-0.58)	-0.09 (-0.22)
Lit	0.05 (0.86)	0.03 (0.42)	0.02 (0.45)
GCON	-0.01 (-0.09)	-0.05 (-0.85)	0.03 (0.27)
PD			3.44 (1.82) **
ID			5.83 (2.83) ***
BD			3.32 (1.50)
R-square	0.38	0.37	0.43
Sargan test	0.49	0.52	0.61

Notes: The values in parenthesis denotes the t-statistics where (*, **, ***) determines the significance level at 10%, 5% and 1% levels. The GMM is isused as instrumental variable technique with lag explanatory variables as instruments. Sargan is the test of validity of intruments that is asymptotically distributed as chi square under the null hypothesis that instruments used are valid, exogenous and not correlated with error terms.

In Table 5, results show that in all three models reveal that one pinod lagged economic growth rate has positive and significant impact on current economic growth rate.

Empirical result show that FDI has a negative and insignificant effect on economic growth in the three models. This illustrates that there is an inefficient allocation of capital inflow in the economy, which result in an adverse effect on an economic growth, and this result is also supported by Ahmad. E and Hassan. L 2009. The negative association of FDI shows that in these developing countries, there is a high burden of foreign debt which is misutilized in South Asian Countries. (Soto 2000).

The effect of remittances show a positive and significant relationship with economic growth rate in three models. This has been identified that remittances exert a positive influence on economic growth if it is utilized in an effective way.

This study also analyzes the impact of financial development (domestic bank credit to GDP ratio on economic growth rate) and it shows that the financial development has a positive and significant impact on the economic growth of South Asian countries. In two estimated models (Model 2 and Model 3) the coefficient sign shows a positive and highly significant relationship with economic growth, this means the financial development influences the economy in a positive way through high allocation of domestic bank credit to GDP ratio in the economy. It is

analyzed that M2 has a positive and insignificant effect on economic growth rate in Model 1.

The relationship between terms of trade and economic growth in South Asia has been estimated and it shows that it is positive and significant impact on economic growth in Model 2 and Model 3 whereas it is positive but insignificantin Model 1. The estimated value of TOT shows that M2 makes the result robust in Model 1.

South Asian countries follow the expansionary policy and it promot aggregate demand and aggreagate demand is the sum of private consumption, investiment, government spending and imports. Monetary policy focuses on first two elements, which increase economic growth, whereas expansionary policy also increase inflation. Therefore due to inverse in inflation, economic growth decreases. This two contradictory effect impact the economic growth and make positive and insignificant effect of M2 on economic growth

The result shows that inflation rate has a negative and insignificant impact on growth rate in three models. The smaller negative coefficient and insignificant effect illustrate that the economic growth rate decreased when the economy has high inflation rate. An inverse relationship of inflation rate and economic grwith rate would arise if an exogenous showing of the economic growth rate tended to generate high inflation. This increase in inflation could result in monetary authorities reacted to economic growth slowdowns with expansionary policies. Moreover, if the path 1 monetary aggregates did not change, then reduction in the growth rate of output would tend automatically to raise the inflation rate.

Government consumption may be one of the major influencing macroeconomic components in the analysis economic growth in South Asian ountries, but it is found that the government consumption has a negative and insignificant impact on the growth rate in Model 1 and Model 2 whereas it is positive and insignificant in Model 3. Therefore it can be seen that a policy maker enhance economic performance by reducing the size and scope of government consumption.

Government consumption become a burden at some point, either because government becomes too large or because outlays are misallocated. In this cas, the government consumption effects negatively to economic growt.

The three country specific dummies – PD, ID and BD (for Pakistan, India and Bangladesh respectively) as compare to Sri Lanka give positive and significant impact on economic growth.

Conclusion and Policy Implication

This study analyzed the impact of capital inflow, financial development on economic growth of selected countries of South Asia, and utilizing the data from the period of 1980 to 2010. In this study, we test our constructed / development hypothesis in the chapter 2 that Capital Inflow does not play a vital role in financial development on the economic growth. In this chapter we recommend the policy measures for South-Asian countries on the basis of our estimated results illustrated in previous chapter. These policy measures sustain to the prevailing circumstances of capital inflow, financial development, and the process of economic growth in Pakistan, India, Bangladesh, and Sri-Lanka.

From the calculation, it shows that FDI has a negative and insignificant effect on economic growth in the all three models. This illustrates that there is an inefficient allocation of capital inflow in the economy, which result in an adverse effect on an economic growth. The negative association of FDI shows that in these developing countries, there is a high ratio of foreign debt which becomes a major hurdle in the economic growth.

An effect of remittances shows a positive and significant relationship with economic growth in all three models. This has been identified that remittances exert a positive influence on economic growth if it is utilized in an effective way. This results also analyze the impact of financial development (domestic bank credit) and it shows that the financial development has a positive and significant impact on the economic growth of South Asian countries.

In both estimated models (Model 1 and Model 2) the coefficient sign shows a positive and highly significant relationship with economic growth, this means the financial development influence the economy in a positive way through high allocation of capital inflow in the economy. It is interesting to analyze that M2 makes the financial development insignificant in Model 2, whereas M2 in Model 2 is itself positive but insignificant effect on economic growth.

The relationship between terms of trade and economic growth in South Asia has been estimated and it gives the result that it is positive and significant impact on economic growth in Model 1 and Model 2 whereas it is positive but insignificantin in Model 2. The result shows that inflation rate has a negative and insignificant impact on growth rate in in all three models. The smaller negative coefficient and insignificant effect illustrate that the inflation growth relationship flattens when the economy has high inflation.

Intuitively, we can say that once inflation increases, all of the damage to the financial system has already been done, and then perfect foresight dynamics comes into being. When these occur, further increases in inflation have no additional detrimental effects on economic growth. Government consumption may be one of the major influencing macroeconomic components in the analysis of economic growth in South Asian ountries, but it is found that the government consumption has a negative and insignificant impact on the growth rate in Model 1 and Model 2 whereas it is positive and insignificant in Model 3. Therefore it can be seen that a policy maker enhance economic performance by reducing the size and scope of government consumption. The results also show that as compared to Sri Linka all three countries Pakistan, India and Bangladesh have positive impact on economic growth.

After analyzing the results there should be some policy implications for the determinants of economic growth. Instruments such as remittance linked loans are introduce to increase the benefits of remittances to economic growth. There is strongly needed to emphasize on the institutional reforms and formation of new financial institutions which plays a vital role in the development process and utilized the inflow in an efficient way, so this should promote the new and productive investment in the country (Lin. S&Ye. H (2009).

Theories and past studies show that the capital inflow exerts a positive impact on the economic growth under specific forms. From the facts and figures of this study this research work shows that the impact of capital inflow is going to be effective, when the foreign inflow has been utilized in an efficient way. Countries that efficiently utilized its foreign inflow has highly been enjoying the positive spillovers of the foreign inflow and achieve its targeted goal of development.

In this region FDI and remittances play a vital role in economic development. Our findings, explores that these variables enhance the economic growth, by allocating the resource in an efficient way. And this should only be achieved by investing the foreign reserves into more efficient and long run projects in the country. This improves the economic output by increasing the productivity of capital and labour. A more investment project in the region should positive impact on the trade of these countries and it keeps moving the export by making them feasible for other countries.

The terms of trade enhances the economic growth by importing the advanced technology from highly developed economies and it support the local industries by increasing the productivity of products at national and international markets. This should only be achieved through export promotion incentives in the region. And it increases trade openness in the economy and have a positive impact on economic growth. There is strongly needed to increase the progress in trade by introducing new import and export policies which influence the economic growth. The government must adopt import substituting policies and increase the value of product so this should raise the foreign reserves (Ahmad. E, 2009).

For this purpose government also follows the reinvestment policy in the region so that the foreign and local investor must reinvest some portion of its profit in the region which benefit in the shape of economic welfare. And this inflow becomes a major source of importing new technology and enhances the efficiency of industries.

Inflation rate should be decreased to increase economic growth. In South Asian countries a factor of political instability is one of the major hurdles in the economic development. This increases the risk of uncertainty in the country and discourages the investors to invest in the different projects. Due to the low rate of investment in these countries would result in higher rate of unemployment and low level of living standard. This should be adversed impact on trade which increase the burden on the economy.

The study shows that in South Asian economies, human capital does not have a significant relationship with economic growth. In this region, incompetence of education sector reduces a productivity of human capital and resulting in a lack of skilled labour in the economy. Whereas the adult literacy rate is the major measure of human capital accumulation in the economy, but in the South Asia ratio of adult literacy rate is very low which result in a low accumulation of human capital in the economy. Government should reform the educational policies and keep it up-to-dated, and iniating the project for the promotion of advanced skills and technology. For achieving the desired level of economic growth there is highly needed to create stability in the macro-economic environment.

There are some recommendations for further research that new researcher should take large set of countries, and used GMM and other econometric techniques for further analysis.

References:

Admas, S. (2009). Foreign Direct Investment, Domestic Investment and Economic Growth in Sub-Saharan Africa. *Journal of Policy Modeling,* Vol. 31 (6), PP 939-949.

Ahmad Klasra, M. (2011). Foreign Direct Investment, Trade Openness and Economic Growth in Pakistan and Turkey an Investigation Using Bonds Test. *Qual quant,* Vol. 45, PP 223-231.

Ahmad, E., & Malik, A. (2009). Financial Sector Development and Economic Growth: an empirical analysis of developing countries. *Journal of Economic Cooperation Development,* Vol. 30-1, PP 17-40.

Alfaro, Laura., Areendam, C., Kalemli-Ozcan, S. & Selin, S. (2003). FDI and Economic Growth, The Role of Local Financial Market. *Journal of International economics* Vol. 61(1), PP 513-33.

Bangladesh Economic Survey (2003). www.mof.bd.

Bangladesh Economic Survey (2011). www.mof.bd.

Bailliu, J.N. (2000). Private Capital flows, financial development, and economic growth in developing countries. *Bank of Canada,* WP2000-15.

Barro, R. J. (1990). Economic Growth in a Cross-Section of Countries. *Quarterly Journal of Economics*, May, Vol. 106(2): PP, 407-443.

Christopoulos, DK., & Tsionas, GE. (2004). Financial Development and Economic Growth; Evidence from Panel Unit Root and Co-integration. *Journal of Development Economics*, Vol. 73, PP, 55-74.

Hathem-J, A., & Irandoust, M. (2005). Foreign Aid and Economic Growth: New Evidence from Panel Cointegration. *Journal of Economic Development*, Vol. 30(1), PP 71-80.

Hermes, N., & Lensink, R. (2003). Foreign Direct Investment, Financial Development and Economic Growth. *The journal of development studies*, Vol. 38, PP, 113-121.

Jalil, A., & Ma, Y. (2008). Financial Development and Economic Growth: Time Series Evidence from Pakistan and China. *Journal of Economic Co-operation,* Vol. 29(2), PP, 29-68.

Parsad, E.S., Rajan, R.G., & Subramanian, A. (2007). Foreign Capital And Economic Growth. *NBER Working Paper,* no.13619.

Pakistan Economic Survey. (2010-11). www.minsitryoffinance.gov.pk.

Romer, P. (1986). Increasing Returns and Long-Run Growth. J*ournal of Political Economy*, Vol. 94(5), PP, 1002–1037.

Romer, Paul. M. (1994). The Origins of Endogenous Growth. *Journal of Economic Perspectives 5 (Winter 1994)*, PP, 3-22.

Soto, M. (2000). Capital Flows and Growth in Developing Countries: recent empirical evidence. *OECD Development Centre, Research Program on Capital Movements and Development*, Working Paper No 160.

SriLanka Economics Survey (2010). www.statistics.gov.lk.

Varmani. (1997). Economic Development and Transition. *Presented at the Tokyo Dialogue on Alternatives to the World Bank-IMF Approach to Reforms and Growth, organized by the Economic Planning Agency,* December 7, in Tokyo, Japan.

World Bank. (1998). Global Economic Prospects and the Developing Countries 1998/99. *Washington, D.C. World Bank.*

World Bank. (1994). The World Bank's Role in Human Resource Development in Sub-Saharan Africa: Education. *Training and Technical Assistance. Sector Study No. 13449. Operations Evaluation Department*, the World Bank, USA.

www.worldbankdata.org.

Yang, X. (2010). Financial Integration and Economic Growth. *Available at SSRN:* http://ssrn.com/abstract=1891570.

Appendix A
Table 1A
Data Collection Source

Group	Variable	Source	Indicator
Economic variables	GDP Growth Rate	World development Indicators from the data catalogs of World Bank / Statistical Handouts of Central Banks of South Asian Countries, Economic Survey of Pakistan, and Surveys of other countires	Development Indicators
	Trade Openness (Export + Imports) Ratio to GDP	World Bank/UN/ Central Banks of South Asian Countries, Economic Survey of Pakistan, and Surveys of other countires	Trade Indicators
	Government Consumption Ratio to GDP	World Bank/ Central Banks of South Asian Countries, Economic Survey of Pakistan, and Surveys of other countires	Development Indicators
	Inflation	World bank/IMF/UN/ Central Banks of South Asian Countries, Economic Survey of Pakistan, and Surveys of other countires	Development Indicators
Capital	FDI ratio to GDP	World development Indicators from the data catalogs of	Development

Inflow		World Bank / Statistical Handouts of Central Banks of South Asian Countries, Economic Survey of Pakistan, and Surveys of other countires	indicator
	Remittances	World development Indicators from the data catalogs of World Bank / Statistical Handouts of Central Banks of South Asian Countries, Economic Survey of Pakistan, and Surveys of other countires	Development Indicators
Financial Development	Domestic Bank Credit Ratio to GDP	World Bank/IMF/ Central Banks of South Asian Countries, Economic Survey of Pakistan, and Surveys of other countires	Development Indicators
	Money Supply Ratio to GDP	World Bank/UN, Economic Survey of Pakistan, and Surveys of other countires	Development Indicators
Human Capital /Education	Adult Literacy Rate	World Bank/ Central Banks of South Asian Countries/UN, Economic Survey of Pakistan, and Surveys of other countires	Education

Note: Unit of FDI, Remittances, M2, Domestic Bank Credit Ratio and TOT all are in US Million $

Author Profile

Dr Sabahat Subhan received the Doctorate degree in Economics from Quaid-i-Azam University Islamabad, Pakistan, in 2011.Currently doing teaching as Assistant Professor in National University of Modern Languages, Islamabad, Pakistan. Her research interest includes macroeconomics and development economics.

Kamroon Taj received the M.Phil degree in Economics National University of Modern Languages, Islamabad, Pakistan, in 2015. His research interest includes foreign direct investment and gross domestic product.