

## Effect of Capital Flow on Economic Growth in Sri Lanka

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### **Abstract**

Assessing the connection between capital flow along with economic growth over the emerging markets including Sri Lanka is limited and its repeated study is also essential since these markets changing usually due to several macro-economic factors. The liberalized economic policy of Sri Lanka since 1977 drawn the worldwide capital inflow at a sort of foreign direct investment to Sri Lanka and affected the economic performance of the county. Hence, the question on “what extent Sri Lankan economic growth respond into this global capital flow?” is considerable research issue. Thus, the purpose with the study is to inquire into the consequence of foreign direct investment in economic growth of Sri Lanka since 1978 into 2018. The parameters of regression model estimated based on the Ordinary Least Square method. The right model was chosen together with the use of linear, linear -log, log-linear and log-log data conversion. The model that has the highest  $R^2$  value had been chosen. Consequently, the linear model that includes adjusted  $R^2$  value of 87 percent had been selected. The study finds that foreign direct investment is positively and significantly affect the economic growth quantified with respect to gross domestic product of Sri Lanka throughout the length of analysis.

**Keywords:** Capital Flows, Economic Growth, Sri Lanka

### **1. Introduction**

Capital inflows reflects the worth of investment moved across country borders. The essential elements of capital inflow are portfolio investment (PI), foreign direct investment (FDI) as well as other investment (OI). Those transactions would not affect the transfer of control of organizations. Short-term transactions of financial assets in a form of securities in money market are denoted as other investment. FDI symbolizes the investment in non-current assets in overseas counties which could be utilized to run business functions within a kind of acquisition of an international corporation or construction of the new manufacturing plant or enlargement of an existent plant within a foreign nation. The long-term trades of monetary belongings like securities and stocks between states have been known as PI. Those would not influence the transfer of control of organization. Short-term transactions of financial assets a type of securities from money market are denoted as OI.

One of the critical resources of capital for a developing country around the world is international capital flow which therefore is very important to sustainable economic advancement, Liyanage (2015). Additionally, that the global community also have long realized that developing nations require a considerable inflow of outside fund to be able to fulfill out the economies and foreign exchange related to an accelerated speed of capital accumulation and economic

growth necessary to conquer wide spread poverty and also into increase living standards to satisfactory levels, (UNCTAD, 2000). Combes, Kinda, Ouedraogo and Plane (2017) locate a considerable association between capital inflows and economic growth. find a significant association between capital inflows and economic growth. There exists a positive relationship between capital inflows and economic growth (Vihn, 2010) Considering the significance of capital flow into a market, Sri Lankan government additionally chose plenty of attempt to draw funds flow in executing its advancement schedule.

However, there are arguments that economic growth perhaps not happened on account of this capital flows. Kose, Prasad, Rogoff, and Wei (2006) argue that global capital inflows usually do not make sturdy development benefit at the long run and integration of worldwide financial system contributes superior economic progress. collateral benefit and improved macro-economic policies however the best results in a method of growth would not be able to achieved instantly. Prasad, Rajan, and Subramanian (2006) additionally noticed that global capital inflow might even trigger result lead to undesirable economic progress in poor and developing nations. Further corresponding conclusions of adverse connection between capital flows as well as economic growth seen at the recent scientific research reports of Carkovic (2002), Durham (2003) and Prasad *et.al.*, (2006). Hence, that the impact of capital flow over the economic growth stays inconclusive for a long period of time among the scholars.

Although the research fascination with capital flow and economic growth has attracted the interest of any scholars and economist to get recent years, there is a lot to be understood concerning the association between capital flow and economic growth over the developing nations. Particularly like in Sri Lanka.

## **2. Research Problem**

Sri Lanka is a developing country which had a closed economic policy until 1977. The new Government that came into power in 1977 shifted the economic policy as liberalized for the purpose of brining investment in overseas and national investors. Additionally, the boost in capital flow and also the participation of private sectors both form domestic and international in a form of multinational corporations is a result of removing of trade barriers internationally, widespread of globalization and integration of international business, the formation of Greater Colombo Economic Commission and Free Trade Zones. The increased capital flows are now utilized to fund deficit of current account in the balance of payment and to strength the economic development of the country, the fundamental research question, whether the capital flow reflected the economic growth in Sri Lanka.

However, there are some studies linked with capital flow over the context of Sri Lanka, for example, Balamurali & Bogahawatte (2004); Mustafa & Santhirasegram (2012) the findings may change as a result of using distinct data set and differing sample time interval. Hence, the inquiry on “what extent Sri Lankan economic growth respond into the international capital flows?” still require more investigation.

Understanding of this global capital flow in a kind of FDI, using all the data set of extended spans, which is from the introduction of liberalization policy in Sri Lanka from 1978 to date would be an additional contribution to this existing literature under the context of developing country, notably at Sri Lanka. Moreover, the finding of the study could promote the policy makers to put a lot focus on brining foreign direct investment flows where as investors and business ought to contribute to the policy makers to lay much emphasis on attracting foreign direct investment flows, while investors and business need to think about the up side changes which could possibly be made by escalating other different investment funding flows as well as the drawbacks risks which may result by a substantial downturn or even a reversal in these types of capital flows into Sri Lanka.

### 3. Research Objective

The most important aim of the study is to learn more about the result of this capital flow on economic growth in Sri Lanka within an interval of 40 years in 1978 to 2018.

### 4. Review of Literature

Some research has been conducted in assessing capital flow, although there are much less studies performed on the result of capital flows on economic growth in Sri Lankan context. But, this study reviews the consequence of latest capital flow and economic growth both in the worldwide and Sri Lankan context.

Hadad and Harrison (1993) assessed the favorable spillovers from overseas direct investment in the Moroccan manufacturing industry. They employed a unique firm-level dataset and they claimed that the dispersion of output is smaller compared to sectors together with greater international companies and quotas and traffic are drawn to a up bias in estimating technologies spillovers to secure domestic market.

Borenszteina, Gregoriob, and Leec (1998) analyzed the consequence on international direct investment in economic growth among 69 developed countries. As stated by the investigation, it is found that FDI is a crucial vehicle as opposed to national investment because of its transfer of technological innovation, leading somewhat to economic development. But, this analysis reports that the greater productivity of FDI holds just as soon as the host region has a minimal threshold stock of human capital and adequate power of their technology that is innovative.

Furthermore, that the analysis about the effect of foreign direct investment (FDI) on capital accumulation, output and total factor productivity (TFP) development of OECD and non-OECD nations around the international locations within a period of time of 1970-1990 assessed by Mello (1999) claimed that although FDI is predicted to raise long-run increase inside the receiver economy by way of technological advancement and knowledge spillovers, it is shown that the degree to which FDI growth-enhancing is based upon the level of complementary and substitution involving FDI and domestic investment decision.

Lusinyan (2002) investigates the global capital flows, economic growth and financial market efficacy in Italy. explores the international capital flows, economic growth, and efficacy of financial market in Italy. The analysis includes US portfolio investment to some set of 32 developing nations. Implementing GMM estimator plan the analysis unearthed that mainly encourage the perspective which economic growth and efficacy of national financial markets in developing markets would be the significant determinants of international capital holdings into all these countries.

Balamurali and Bongahawatte (2004) investigated the connection between FDI and economic growth in Sri Lanka throughout the period of 1977 to 2003. Economic growth is represented with the real output and it is quantified as the over all imports and exports to gross domestic products being a proxy for economic growth within this research. Domestic investments (DIN), openness of the trade policy regime (OPEN) and FDI were used to quantify the foreign direct investments. The data was analyzed employing "Johansen's full information maximum likelihood method". The study found that there exists a long-run equilibrium relationship among DIN, FDI, OPEN and GDP. Additionally, Engle and Granger error correction approach was also employed to analyse the data. Accordingly, the study finds that there exists bidirectional Granger causality in between FDI and GDP and OPEN and DIN has positive impact on GDP. Moreover, the analysis found that feedback causality in DIN and OPEN available into GDP in addition to by GDP

into DIN and also OPEN. Thus, the study concludes that FDI has been an important determinant of Sri Lankan economic growth right after the 1977 time period.

Iqbal, Faiz and Amir (2010) also investigated the association between FDI and economic growth in Pakistan throughout the period from 1998 into 2009. Utilizing the annualized data, the study employed VECM framework to analyse the data. The finding of the study indicates that a bidirectional causality association exists between FDI and economic growth.

Mustafa and Santhirasegram (2012) examined the association of FDI on economic growth in Sri Lanka during the time period of 1978-2012. Employing the log-log multiple regression model, FDI positively and significantly impact Sri Lankan economic growth.

Waweru (2017) investigated the impact of capital flow in Kenyan economic growth. Employing the Auto Regressive Distributed Model (ARDML), the instantaneous and lagged consequences of several types of capital flows like FDI, portfolio and other investments were analyzed for a period of 30 years benign from 1984 to 2014. Findings of this study suggest portfolio investment and FDI possess an insignificant destructive effect on the growth of GDP. But it is additionally reported that other investment flows positively associated with GDP growth rate. Furthermore, the analysis implies that a substantial downturn and even a reversal in other form of capital flow lead to the substantial slowdown in economic growth of Kenya.

Combes, Kinda, Ouedraogo, and Plane (2017) examined the effect of capital flow studied the impact of capital inflows on the real exchange rate and economic growth real exchange rate along with economic growth during 1980 to 2012 in 77 developing countries. Employing “Generalized Method of Moment (GMM)”, the study identified (i) one percentage boost in overall capital inflows raises real exchange rate by only 0.5 percentage, (ii) while the appreciation in real exchange rate is double, bigger than ten times effect on FDI by the remittances of aid and (iii) as an over all, capital flows are correlated with increased economic growth later emptied from the adverse effects of real exchange rate appreciation. The study affirms that capital inflows have an impact on economic growth indirectly and directly.

## 5. Design and Methodology

The present study is composed of quantitative data to its analysis which drives throughout the secondary information origin by the Central Bank of Sri Lanka’s annual report, covers the time period of forty years in 1978 into 2018. The data related for the analysis utilizes yearly time series in steady rates for gross domestic products an overall net inflow for foreign direct investment (FDI). Techniques like correlation and regression had been applied to test the association between the independent variable named as the FDI and the variable had been symbolized with the subsequent common regression model.

$$GDP_t = \alpha + \beta FDI + e_i \quad (1)$$

However, regression models such as liner model, log-liner model, log-log model, and log-linear model had been regressed as a way to select the ideal regression mode together with the assistance of Minitab version 17.0. All these models were categorized as exhibited from the following formulas.

$$GDP_t = \alpha + \text{Log}\beta FDI + e_i \quad (2)$$

$$\text{Log}GDP_t = \alpha + \text{Log}\beta FDI + e_i \quad (3)$$

$$\text{Log}GDP_t = \alpha + \beta FDI + e_i \quad (4)$$

The selection of best model has been achieved around the cornerstone of value of Adjusted R<sup>2</sup>, the Estimated F statistics (F), Durbin-Watson Statistics (DW) and Variance Inflating Factor (VIF). The value of every single statistics beneath these models are summarized in Table 1.

**Table: 1 Important Statistics of each Models**

Model		P	F	DW	VIF	R-Sq% Adj.
Linear	$GDP_t = \alpha + \beta FDI + e_t$	0.000	313.56	1.02155	1.00	88.65
Liner-log	$\text{Log}GDP_t = \alpha + \beta FDI + e_t$	0.000	130.31	0.453914	1.00	76.37
Log-log	$\text{Log}GDP_t = \alpha + \text{Log}\beta FDI + e_t$	0.000	211.45	1.15759	1.00	84.03
Log-linear	$GDP_t = \alpha + \beta FDI + e_t$	0.000	72.69	0.462561	1.00	64.19

Where GDP=gross domestic product, FDI=foreign direct investment

Source: Survey Results

## 6. Results and Discussion

Statistic such as Adj. R<sup>2</sup>, estimated F statistics (F), Durbin-Watson Statistics (DW) and Variance Influencing Factor (VIF) to predict the model selection have been offered in Table - 1. Accordingly, the linear model turned out to be comparatively sound and the outcome of this model is presented in Table 2.

**Table 2: Regression Result (Linear Model)  $GDP_t = \alpha + \beta FDI + e_t$**

	Coefficient	t-value	probability
$\alpha$	4729778172	2.53	0.016*
FDI	62.73	17.71	0.000**

\*significant at alpha value of 5%

\*\*significant at alpha value of 1%

Where GDP=gross domestic product, FDI=foreign direct investment

Source: Survey Results

According to Table 2, the FDI is positively and significantly related to GDP together with the estimated coefficient of 62.73 and p value of 0.000 in the statistically significant level of less than 1. For this reason, it is found that FDI significantly influence the GDP in Sri Lanka during the period of study. This finding is consistent with that of Lusinyan (2002), Balamurali & Bogahawatte (2004), Iqbal, Faiz & Amir (2010), Mustafa & Santhirasegram (2012). However, the finding of this study is contrary to the study of Waweru (2017) who found negative relationship between FDI and GDP.

## 7. Conclusion

The primary purpose of this study is to assess the effect of capital flows quantified in relation to FDI in economic growth measured with regard to gross domestic products in Sri Lanka. The finding this study affirms that is a significant positive association of capital flow and economic growth. The economic performance of Sri Lanka would not be improved without the support of foreign direct investment. Therefore, constant attempt in attracting foreign direct investment into Sri Lanka is incredibly essential. This study is limited with only one variable that is foreign

direct to measure the capital flow. Inclusion of more variables such as portfolio investment and domestic investment in the future studies would be more advantage.

## REFERENCES

- Balamurali, N. and Bogahawatte, C. (2004), 'Foreign direct investment and economic growth in Sri Lanka', Sri Lankan Journal of Agricultural Economics. Vol. 6, No. 1, pp. 37-50.
- Borensztein, E., Gregorio, J. De., and Leec, J. W., (1998), 'How does foreign direct investment affect economic growth?' Journal of International Economics Volume 45, Issue 1, pp. 115-135.
- Carkovic, M. and Levine, R. (2002), 'Does foreign direct investment accelerate economic growth?', University of Minnesota. Working Paper.
- Combes J.L., Kinda T., Ouedraogo R., Plane P. (2017), 'Does it pour when it rains? Capital flows and economic growth in developing countries', Études et Documents, no. 2, CERDI.
- Durham, J.B. (2003), 'Foreign portfolio investment, foreign Bank lending, and economic growth', International Finance Discussion Papers 757, Washington, DC: Board of Governors of the Federal Reserve System.
- Hadad, M., and Harrison, A. (1993), 'Are there positive spillovers from direct foreign investment?: Evidence from panel data for Morocco', Journal of Development Economics, Volume 42, Issue 1, pp. 51-74.
- Kose, A., Prasad, E., Rogoff, K., Wei, S-J. (2006), 'Financial globalization: A reappraisal', International Monetary Fund Working Paper No. 06/189.
- Liyanage, E., (2015), 'Determinants of capital inflows: Evidence from Sri Lanka', Staff Studies, Vol. 44, No. 1 & 2, Central Bank of Sri Lanka
- Lusinyan, L. (2002), 'International capital flows, economic growth and financial market efficiency', European University Institute, Working paper, ECO No. 2002/20, pp. 1-35.
- Mello, LR. De., (1999), 'Foreign direct investment-led growth: evidence from time series and panel data', Oxford Economic Papers, Vol.51, Issue 1, pp. 133-151.
- 'Mustafa, A.M.M. & Santhirasegram, S., (2012), 'The impact of foreign direct investment in Sri Lanka, Journal of Management, Vol. VIII, No.1, pp. 27-32.
- Prasad, E., Rajan, R., Subramanian, A. (2006), 'Patterns of international capital flows and their implications for economic development, presented at the symposium', The New Economic Geography: Effects and Policy Implications," The Federal Reserve Bank of Kansas City, Jackson Hole, Wyoming, August 24-26.
- UNCTAD, (2000), 'Transnational corporation and export competitiveness', World Investment Report, United Nations Conference on Trade and Development.
- Vinh, V. X., (2010), 'Net private capital flows and economic growth-the case of emerging Asian economies', Applied Economics, Vol. 42, No.24, pp 31-35.

Waweru, G., (2017) 'Effects of capital flows on economic growth in Kenya', African Development Finance Journal, Vol. 1, No. 2, pp. 1-17.