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THE RELATIONSHIP OF FOREIGN AID AND FOREIGN DIRECT INVESTMENT IN NEPAL

Abstract. The main purpose of this paper is to find out the relationship between foreign aid and foreign direct investment in case of Nepal, does foreign aid attract foreign direct investment in Nepal? In order to achieve the aim, the paper is based on external secondary data, scientific economic literature and correlation and regression analysis. The paper uses data from the year 1996 to fiscal year 2016. The study shows the perfect positive linear relationship between foreign aid and FDI. Foreign aid plays the complement role for foreign direct investment in case of Nepal. It means that foreign aid assists to increase FDI in Nepal.

Key words: foreign direct investment, foreign aid, economic growth, Nepal.

JEL: F21, F36

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1. Introduction

Inflows of capital play a vital role in the development process of any developing country. Many economists are claimed that capital is essential for economic growth. The impact of FDI on developing countries has been broadly discussed in the literature. FDI provides tangible and non-tangible benefits to developing countries such as, capital flows, employment, technology spillover, better balance of payments and also helps to tie to the rest of the world.

Dunning, J. H. (2000) pointed out that the attractiveness of FDI locations is determined by investment motivation, which he classified into four categories: market-seeking (horizontal strategy to access the host-country domestic market), resource-seeking (to access raw materials, labor force, and physical infrastructure resources), efficiency-seeking (vertical strategy to take advantage of lower labor costs, especially in developing countries), and strategic assets-seeking (to access research and development, innovation, and advanced technology). Least developed countries are low income countries which does not have economic stability, political stability and also there is lack of physical infrastructure resources.

For this reason, least developed countries faces some difficulties to attract great amount of FDI. To avoid those obstacles dose foreign aid would be another determinant of FDI, which could provide the countries institution and good governance also can develop physical infrastructure resources of the host countries. This study creates a hypothesis that foreign aid assist to increase FDI in the least developed country Nepal (Figure 1).

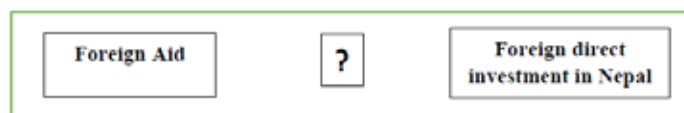


Figure 1. Foreign Aid and FDI

Literature review

Foreign direct investment and foreign aid are two main sources of capital flows to developing countries. The purpose of these two flows are different.

FDI and economic growth

Zhang (2001) empirically analyzed the relationship between FDI and economic growth by using data on 11 developing countries in East Asia and Latin America. He finds that FDI can be expected to boost economic growth in the host country, he also states that FDI is more likely to promote economic growth when host countries adopt liberalized trade regimes, improve education (and thereby human capital conditions), encourage export-oriented FDI, and maintain macro-economic stability. Borensztein et al. (1998) test the effect of foreign direct investment (FDI) on economic growth in a cross-country regression framework, utilizing data on FDI flows from industrial countries to 69 developing countries, there result suggests that FDI is an important vehicle for the transfer of technology, contributing relatively more to growth than domestic investment. However, the higher productivity of FDI holds only when the host country has a minimum threshold stock of human capital. Thus, FDI contributes to economic growth only when a sufficient absorptive capability of the advanced technologies is available in the host economy.

Alfaro et al. (2004) explore whether countries with better financial systems can exploit FDI more efficiently. They empirically analysis the relationship between FDI, financial markets, and economic growth using cross-country data between 1975 and 1995, shows that FDI alone plays an ambiguous role in contributing to economic growth. However, countries with well-developed financial markets gain significantly from FDI. Durham (2004) examines the effects of FDI on economic growth using data on 80 countries from 1979 through 1998. His empirical results suggest that the FDI effects on economic growth are contingent on the absorptive capacity of the host country, with particular respect to financial and institutional development. Pegkas, P. (2015) found the positive impact of FDI on economic growth in Eurozone countries.

Foreign aid and economic growth

Foreign aid is mostly wasted on corrupt recipient governments despite any good intentions from donor countries. Foreign aid has given to overcome from the poverty to poor developing nations.

Foreign aid does have some positive impact on growth, conditional on a stable macroeconomic policy environment [Durbarray, et al. 1998]. The effect of foreign aid on economic growth is positive, permanent, statistically significant, and sizable: raising foreign aid by \$20 per person of the receiving country results in a permanent increase in the growth rate of real GDP per capita by approximately 0.16 per cent [Karakaplan, et al., 2005]. According to Ekanayake and Dasha (2010), foreign aid has mixed effects on economic growth in developing countries. By using a panel data set comprising of five South Asian economies, the author found positive relationship between aid and economic growth [Asteriou, 2009]. By using co-integration and error correction mechanism, Bhattarai, B. P. (2009) investigates the effectiveness of aid in Nepal during the period 1983–2002, he found that foreign aid has a positive and statistically significant effect on per capita real GDP in the long-run and aid effectiveness improves in the presence of good policy environment.

Foreign aid and FDI

Foreign aid and FDI are neither substitutes nor complements in world's poorer countries, further emphasizing that foreign aid flow in developing countries mainly in the form of supporting government budget, humanitarian activities and human capital development; it makes sense that foreign aid indirectly attract FDI [Kosack & Tobin, 2006]. Similarly, in the study of 180 countries from 1971 to 2007, there was no evidence of causal relationship

between Aid and FDI [Janský, 2012]. The relative impact of financial source such as foreign direct investment, aid and savings are depend on countries' income level, financial structure, and government infrastructure [Kasuga, 2007]. In the Investigating of less developed countries, whether and how foreign aid facilitate FDI flows, authors found that foreign aid in general doesn't have any significant effect on FDI [Kimura & Todo, 2010]. Using both homogeneous and heterogeneous panel co-integration techniques, author examines whether foreign aid contributes to attracting foreign direct investment (FDI) in aid receiving countries and he found that the effect of foreign aid on FDI is negative [Donaubauer, 2014]. In contrast, foreign aid mitigates the risk of FDI in the receiving countries [Asiedu, et al., 2009]. Similarly, in the empirical investigation of the effect of aid on foreign direct investment in view of the hypothesis that countries that receive aid also become more likely to receive FDI, authors claim that this happens especially in cases of good governance and financial market development [Karakaplan, et al., 2005].

Foreign aid in Nepal

Nepal started receiving foreign aid from the beginning of mid twentieth century, specially, from 1952 after joining the Colombo plan for Cooperative, Economic, and Social Development in Asia and the Pacific. The sectors agriculture, transportation infrastructure and power generation absorbed major part of the assistance received in the form of grants while the remainder was invested in other sectors that included industry, communication, education and health. The major donors were India and USA followed by China, Russia, Switzerland, Australia and New Zealand. The plan also provided scholarship for studying various technical and professional courses in different countries for Nepali students.

Out of the total amount disbursed in FY 2016-17, the contribution of grants was US\$ 582.39 million (41.76%), loans US\$ 548.85 million (39.36%), and technical assistance US\$ 263.36 million (18.88%). The disbursement of loans and technical assistance has significantly increased as compared to the FY 2015-16. The largest providers of grant disbursement included the European Union, United Kingdom, USAID, the World Bank Group, ADB, India, the UN Country Team, Switzerland, China and Norway of the amount US\$ 80.23 million, US\$ 78.88 million, US\$ 77.16 million, US\$ 59.59 million, US\$ 55.56 million, US\$ 51.11 million, US\$ 47.17 million, US\$ 29.23 million, US\$ 41.24 million, US\$ 17.75 million respectively among others. The largest providers of

loan component of disbursement were the World Bank Group and ADB of US\$ 284.54 million and US\$ 191.72 million respectively. Similarly, the largest disbursement for technical assistance was made by the UN Country Team, USAID, the United Kingdom, Germany, and Japan of US\$ 73.55 million, US\$ 56.89 million, US\$ 49.43 million, US\$ 22.85 million and US\$ 18.53 million respectively. In FY 2016-17, the top five sectors contributed approximately 41.2% of the total foreign aid disbursement, that is the education sector became the top sector receiving foreign aid of US\$ 127.24 million with 9.1% followed by local development of US\$ 123.00 million with 8.8%, housing of US\$ 112.16 million with 8.0%, drinking water of US\$ 110.1million with 7.9%, policy and strategic of US\$ 101.75 million with 7.3%, health of US\$ 89.58 million with 6.4%, urban development of US\$ 80.8 million with 5.8%, road transportation of US\$ 83.3 million with 6.0%, energy of US\$ 72.2 million with 5.2%, peace & reconstruction of US\$ 72.19 million with 5.2%, agriculture, earthquake reconstruction, others-economic, economic reform, others-social and environment, science and technology. In FY 2016-17, there was the lowest expenditure of only 30.89% at Rs. 93 billion against an allocation of Rs. 302 billion, however, in FY 2009-10 the total aid spent of 63.39% at Rs. 49.7 billion against Rs. 78.5 billion allocated. The reason of this low expenditure could be attributed to the poor progress related to earthquake reconstruction activities¹.

Mr. Jacquet stressed that countries like Nepal should leverage aid terms to be able to better mobilize domestic resources to build capacity for their long-term growth. He also stressed that one of the major ways through which aid can improve governance is transparency. This reduces the chances of aid ineffectiveness. Blended finance is the future and as a Least Developed Country, Nepal can leverage public-private partnership in order to expedite development. For that matter, MoF/IECCD is looking at ways to use foreign aid catalytically to leverage and blend with other types of finance. As of now, Nepal's debt-to-GDP ratio is low so there is space to take on more debt. This is an avenue that the country can definitely delve into, to be able to tap into the changing architecture of international aid².

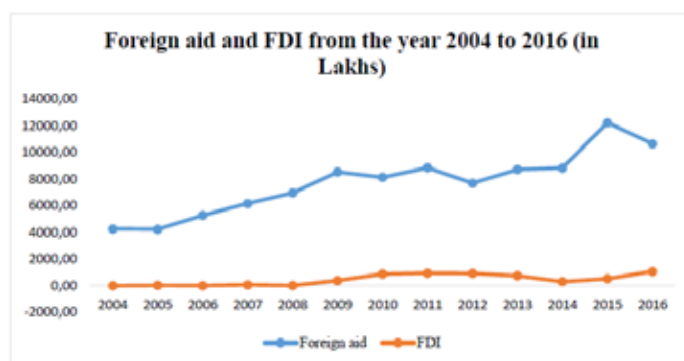


Figure 2. Foreign aid and FDI from the year 2004 to 2016

Source: The World Bank

The figure 2 shows the trend of foreign aid and FDI in Nepal from the year 2004 to 2016.

FDI inflow is very low in comparison to foreign aid in Nepal. Nepal received the highest amount of foreign aid in the year 2015 of \$12250 lakhs, it is because in the same year Nepal had faced a great disaster of earthquake. The highest FDI inflows in Nepal was in 2016 of \$1059.96 lakhs.

Figure 3. Scatter plot, correlation and regression line of the year 2004 to 2016

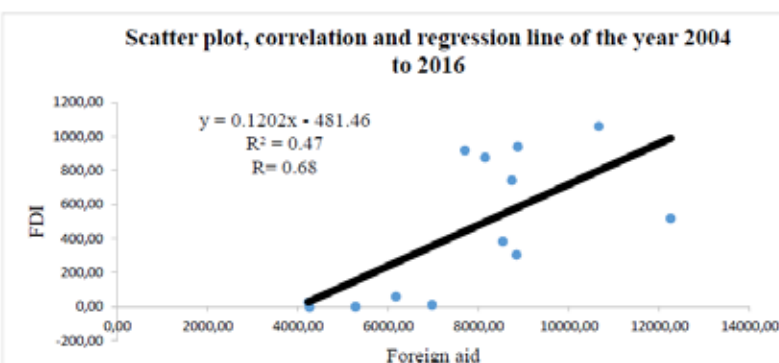


Figure 3 shows scatter plot, correlation and regression line of the year 2004 to 2016. As R squared is 0.47 which says that 47 percent of the variability in foreign aid is explained by regression line. Correlation (R) is 0.68, which indicates moderate positive linear relationship between foreign aid and FDI.

The result table 1 shows that foreign aid is significant predictors of foreign direct investment in Nepal. It denotes that one dollar increase in foreign aid increases FDI by 0.120 dollar in Nepal.

1 Government of Nepal, Ministry of finance, Development cooperation report (2016/17), online: <http://mof.gov.np/uploads/document/file/20171231154547.pdf>

2 Considering the Effectiveness of Foreign Aid: Global Trends, Challenges

and Implications for Nepal (2018), online: http://www.mof.gov.np/uploads/document/file/PROCEEDINGS%20REPORT_Final_5%20Sep-converted_20180914100510.pdf

Table 1. **Results of Regression Analysis**
(Dependent Variable: FDI)

Coefficient	Estimate	Standard Error	t-value	p-value
Intercept	-481.455	313.376	-1.536	0.153
Foreign aid	0.120	0.039	3.093	0.010*

Conclusion

The strategic location of Nepal seems to have played a major role in attracting a great amount of foreign aid, especially during the internal war time, it was mostly stimulated donors to negligence the developmental needs of Nepal and aid absorption capacity. In this paper, we investigate the relationship between foreign aid and FDI of a least developed country Nepal. From the findings in the literature we found that the relationship between foreign aid and FDI is vague. Some authors has mentioned that foreign aid and FDI do not have any relations (neither substitute nor compliment), others, on the one hand stated that foreign aid seems to mitigate (compliment) FDI, on the other hand, described that foreign aid and FDI has negative effect (substitute). Another important observation is that aggregate foreign direct investment inflows posi-

tively induce more of domestic investment. This is very important since as its well known that domestic investment increase the size of the capital stock, and therefore helps determine the long-run growth. Thus, we believe that foreign aid raises the local complimentary inputs quality such as education and health, while foreign direct investments brings advanced technology, and possibly shifts the production frontier upward and ultimately contributes to a raise in efficiency and productivity. Regarding foreign direct investment, this also implies that domestic firms are learning to better combine external technology with domestic inputs in production process.

Our results cannot reject the hypothesis that foreign aid assists to increase FDI in Nepal and we therefore argue that they are complements. Furthermore our findings suggest that foreign aid helps to attract FDI by developing on determinants of FDI such as improve education (human capital), infrastructure development, trade regime, financial regime. Our result brings the conclusion that - aid has a positive role on FDI inflows moreover, aid and FDI are complementing flows.

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МИРОВАЯ ЭКОНОМИКА И МЕЖДУНАРОДНОЕ СОТРУДНИЧЕСТВО

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ВЗАИМОСВЯЗЬ ВНЕШНЕЙ ПОМОЩИ И ПРЯМЫХ ИНОСТРАННЫХ ИНВЕСТИЦИЙ В НЕПАЛЕ

Аннотация. Основная цель этой статьи — выяснить связь между иностранной помощью и прямыми иностранными инвестициями в случае Непала, привлекает ли иностранная помощь прямые иностранные инвестиции в Непале? Для достижения цели в основе статьи лежат внешние вторичные данные, научно-экономическая литература, а также корреляционный и регрессионный анализ. В документе используются данные с 1996 по 2016 финансовый год. Исследование показывает идеальную положительную линейную связь между иностранной помощью и ПИИ. Иностранная помощь играет дополнительную роль для прямых иностранных инвестиций в случае Непала. Это означает, что иностранная помощь способствует увеличению прямых иностранных инвестиций в Непале.

Ключевые слова: прямые иностранные инвестиции, иностранная помощь, экономический рост, Непал.

JEL: F21, F36

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