

FDI and income inequality: A literature survey

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Abstract

For the past few decades, it has been seen that most of the developing economies are integrating rapidly into the world market. Foreign direct investment has become one of the important components of this increasing economic integration. However, increasing FDI is still a matter of debate as far as its impacts on income inequality are concerned especially in developing economies. The present paper involves a literature review of studies examining the impact of foreign direct investment on income inequality particularly in developing economies.

Keywords: foreign direct investment, empirical studies, literature review

1. Introduction

Foreign direct investment is considered to be the primary resource flows to the developing nations. It not only provides capital to the capital deficient country but is also a source of new technologies, knowledge base and management practices. It is also considered to be an important element for growth of developing nations and hence has gained lot of importance over the past few decades. But, at the same time, it has been debated in the literature that the benefits of foreign direct investment are not equally distributed among the individuals within a nation. Hence, relationship between foreign direct investment and income distribution has been under a hot debate and has emerged as an important subject of interest in the field of international economics and economic development. This paper involves a review of the empirical studies examining the impact of foreign direct investment on income inequality particularly in developing economies.

2. Literature Review

The empirical studies examining the impact of foreign direct investment on income inequality are based on different theoretical perspectives leading to contesting views. On the one hand, there exists a theoretical perspective based on Modernization theory which is considered closer to neoclassical economic theory. It is also considered to be based on marginal productivity, theory of saving and consumption. Although, this perspective does not explicitly address the impact of FDI on income distribution but implications can be drawn from this theory about the distributional consequences of FDI on host country. It implies that FDI provides a mechanism for the diffusion of capital, markets and knowledge leading to growth and development of the host economy. With time, this growth and benefits reaches to everyone in the economy.

On the other hand, there are arguments supporting dependency theories which view foreign direct investment as harmful for the host countries. It denies the idea of development transfer and points out that foreign direct investment makes the host country dependent. It states that foreign capital penetration (through FDI) led to the segmentation of the host economy and formation of inter-country interest coalitions. It is also

argued that the penetration of FDI in developing countries hinders economic growth and promotes income inequality by creating disparities and dualism within the economy.

Apart from these two contesting views, there exists another theoretical perspective based on endogenous growth model by Aghion and Howitt (1998) [2]. They utilized the model of General purpose Technology for analyzing the wage inequality and viewed foreign direct investment as a vehicle for introducing new technologies in the developing economy. Initially, when the new technology is introduced, income inequality increases and as more FDI flows into the country, the income inequality decreases leading to an inverted U-shaped relationship between foreign direct investment and wage inequality.

There exists vast array of empirical studies that examines the impact of foreign direct investment on income inequality. However, the findings of these empirical studies are also divided leading to contesting views. One extensive group of studies including the work of Tsai (1995) [20], Feenstra and Hanson (1997) [7], Reuveny and Li (2003) [18], Choi (2006) [4], Basu and Guariglia (2007) [3], Jaumotte, Lall & Papageorgiou (2008) [12] found support in favor of dependency theory.

Tsai (1995) [20] examined the relationship between FDI and income inequality for 33 Least developing countries (LDCs) using OLS. He finds a statistically significant positive correlation between the FDI and income inequality. However, he also showed that the results may vary depending upon the introduction of geographical dummies for Latin American, South East and East Asian Countries into the model.

Feenstra and Hanson (1997) [7] tested the hypothesis based on dependency theory for Mexico for the period 1975-1988 and found that FDI is positively correlated with the relative demand for skilled labor and it can account for a large portion of the increase in the skilled labor share of total wage leading to increase in inequality. But, it did not account for the unobserved country-specific heterogeneity.

Reuveny and Li (2003) [18] examined the relationship between economic openness, democracy and inequality using the pooled time series data for 69 countries for the period 1969-1996. They also found that FDI lead to increase in inequality. They argue that multinationals often led to cut in welfare

expenditure, weakening of labor union and decreased bargaining power of labors which leads to lower wages for workers. Mah(2002) also supported the dependency hypothesis empirically using Johansen co-integration tests in the case of South Korea.

Choi (2006) ^[4] found that inward, outward and total FDI (as a % of GDP) all tend to increase the inequality. However, Outward FDI tends to have a more impact on inequality than inward FDI .It also supports the view of dependency theory and was empirically verified for Asian and Latin American countries. It is the only paper that dealt with examining the impact of both types of FDI i.e. inward FDI and outward FDI. Similarly, Basu and Guariglia (2007) ^[3], using a panel of 119 developing economies for the 1970-1999 period, also reported that FDI leads to increase in income inequality in the host country.

Jaumotte, Lall & Papageorgiou (2008) ^[12] also found support for dependency theory for 51 countries out of which 20 are advanced countries and 31 are developing and emerging countries for the period 1981-2003.They found that FDI increases the income inequality. This is because FDI takes place in skilled intensive sectors which led to increase in the wages of the skilled workers and hence increased income inequality.

However, studies by Mahatuga & Badelj(2008) ^[16] and Jensen and Rosas (2007) ^[13] found support with modernization theory. Jensen and Rosas (2007) ^[13] found that FDI in Mexico led to a reduction in income inequality at the state level for the period 1990-2000.Similar result is reported by Mahatuga & Badelj (2008) ^[16] in their study with longitudinal data on 10 central and eastern Europe post socialist countries for period 1990-2001.They accounted for both FDI flow variable and stock variable in their study by making use of three different measures for FDI.

Besides these, there is another group of studies that find support for an inverted U-shaped relationship between FDI inflows and income inequality (see Figini and Gorg (2006) ^[8], Dobson & Ramlogon (2008), Jalil (2012), Figini & Gorg (1999), Lee (2006) ^[14]). Figini & Gorg (2006) conducted an empirical study based on theoretical framework given by Aghion and Howitt (1998) ^[2] which led to expect a non-linear relationship between Foreign direct investment and income inequality. They tested this relationship between FDI and wage inequality for more than 100 countries for the period 1980-2002 using panel regression. They found that the effect of FDI differs according to two groups of countries i.e. OECD and Non OECD countries. For developing countries, presence of nonlinear effect was found i.e. wage inequality increases with FDI inward stock but this effect diminishes with further increases in FDI. For developed countries, wage inequality decreases with FDI inward stock but there was no robust evidence to show that this effect is non-linear. Figini & Gorg (1999) also verified this inverted U-shaped relationship for Ireland during the period 1979 to 1995.Similarly, Jalil(2012) verifies the curvilinear relationship between openness and income inequality for China for the period 1952-2009 and Lee (2006) ^[14] verified the same for a sample of Asian economies.

Apart from these studies that confirms to the different theoretical perspectives, there are few studies that followed different approaches. For instance, Herzer and Nunnenkamp (2011) ^[10] followed a different approach to examine the relationship between FDI and income inequality for 10

European host countries for the period 1980-2000.They reported the short run and long run effects of FDI on inequality. They point out the positive short run and negative long run effect of FDI on inequality in Europe. In addition, they reported the existence of long run causality in both directions i.e. increase in FDI reduces income inequality and higher inequality leads to lower FDI inflows.

Studies by Wu and Hsu (2012) ^[21] and Meschi and Vivarelli (2007) indicated that the impact of FDI on income inequality depends on the absorptive capacity for new technologies. Meschi and Vivarelli (2007) found that FDI will lead to widening income disparities in Middle income countries (MICs) while low income countries will not have such an adverse effect. This is because middle income countries have high absorptive capacity for new technologies that are diffused from the advanced countries as a result of FDI inflows from developed countries into developing countries. Similar results were reported in a study by Wu and Hsu (2012) ^[21] using a cross sectional dataset of 54 countries for the period 1980-2005. They also indicated that FDI will be more harmful to the host countries with low absorptive capacity.

Similarly, there exists another group of studies by Franco and Gerussi (2013) ^[9], Faustino and Vali (2011) ^[6], Sylwester (2005) ^[19] and Milanovic (2002) ^[17] which reported no significant impact of FDI on income inequality. Franco and Gerussi (2013) ^[9] use both OLS and generalized method of moments (GMM) estimation on a sample of 17 transition countries for the period 1990-2006 to estimate the effect of FDI on income inequality. Faustino and Vali (2011) failed to find significant impact of FDI on income inequality for a sampler of OECD economies. Milanovic (2002) ^[17] used panel data on 88 countries in the period 1985-1998 and Sylwester (2005) ^[19] studied 29 developing countries for the period 1970-1989 to conclude that there is no significant effect of FDI on income inequality.

3. Conclusion and Recommendations

From the above review of empirical studies, it is clear that there is no consensus on the impact of FDI on income inequality although there are quite a few empirical studies verifying the dependency hypothesis. The reason for this lack of consensus in the empirical findings may be attributed to differences in the use of econometric specifications, sample size, proxies for measuring FDI and inequality and also the composition of sample i.e. developed, developing, transition and least developing countries etc. Apart from that, it is also noted that the empirical studies do suffer from some other major econometric issues i.e. omitted variable bias, selection bias and the problem of reverse causality or endogeneity problem. Although, few studies (see Figini and Görg(2006), Jensen & Rosas(2007) ^[13], Herzer & Nunekamp(2011) ^[10]) have made an attempt to deal with this issue of endogeneity problem using advanced econometrics techniques.

There also exist certain issues that lack research in the literature. For instance, majority of the studies have focused on inward FDI and has not emphasized on the different impacts of inward and outward FDI. With time, it is seen that the outward FDI to developing countries has also increased and hence it become quite important to note how the impact of inward and outward FDI differ in developing countries. Within a country, the distribution of foreign direct investment is not equally distributed and some areas and sectors are more

attractive to foreign direct investment. Hence, the question that becomes interesting and important to examine is how the impact of FDI differ across the different areas as well as sectors within a country.

4. References

1. Asteriou D, Dimelis S, Moudatsou A. Globalization and Income Inequality: A Panel Data Econometric Approach for the EU27 Countries, *Economic Modelling*. 2014; 36:592-599.
2. Aghion P, Howitt P. *Endogenous Growth Theory*, Cambridge, MIT Press, 1998.
3. Basu P, Guariglia A. Foreign Direct Investment, Inequality, and Growth, *Journal of Macroeconomics*. 2007; 29(4):824-839.
4. Choi C. Does Foreign Direct Investment affect domestic income inequality? *Applied economic letters*. 2006; 13(12):811-814.
5. Debraj R. *Development Economics*, Oxford India Paperbacks, 2011.
6. Faustino H, Vali C. *The Effects of Globalization on OECD Income Inequality: A Static and Dynamic Analysis*. Technical University Lisbon, School of Economics and Management, Department of Economics, Working Papers, 2011. No. 12/2011/DE.
7. Feenstra RC, Hanson GH. Foreign Direct Investment and relative wages: evidence from Mexico's maquiladoras, *Journal of International Economics*. 1997; 42(3-4):371-393.
8. Figini P, Görg H. Does Foreign Direct Investment affect wage inequality? An empirical investigation, *IZA Discussion Paper*. 2006, 23-36.
9. Franco C, Gerussi E. Trade, Foreign Direct Investment and Income Inequality: Empirical Evidence from Transition Countries, *Journal of International Trade & Economic Development*. 2013; 22(8):1131-1160.
10. Herzer D, Nunnenkamp P. *FDI and Income Inequality: Evidence from Europe*, Kiel. 2011, 1675.
11. Herzer D, Nunnenkamp P. *FDI and Income Inequality: Evidence from Latin American economies*, Kiel. 2012, 1791.
12. Jaumotte F, Lall S, Papageorgiou C. *Rising Income inequality: Technology or Trade and Financial Globalisation?* IMF. 2008, 08.
13. Jensen NM, Rosas G. Foreign Direct Investment and Income Inequality in Mexico, 1990-2000, *International Organization*. 2007; 61(3):467-487.
14. Lee JE. Does globalization matter to income distribution in Asia? *Applied Economics Letters*. 2006; 13:851-855.
15. Mah JS. A note on Globalization and Income Distribution-The case of Korea, *Journal of Asian Economics*. 2003; 14:157-164.
16. Mahatuga M, Badelj N. Foreign Investment and Income Inequality: The Natural Experiment of Central and Eastern Europe, *International Journal of Comparative Sociology*. 2008, 49.
17. Milanovic B. Can we discern the effect of globalization on income distribution? Evidence from household budget surveys, *World Bank Policy Research*. 2002, 2876.
18. Reuveny R, Li Q. Economic openness, democracy and income inequality. An empirical analysis, *Comparative Political Studies*. 2003; 36(5):575-601.
19. Sylwester K. Foreign direct investment, growth and income inequality in less developed countries", *International Review of Applied Economics*. 2005; 19(3):289-300.
20. Tsai P. Foreign Direct Investment and income inequality: further evidence, *World Development*. 1995; 23(3):469-483.
21. Wu J, Hsu C. Foreign direct investment and income inequality: Does the relationship vary with absorptive capacity? *Economic Modelling*. 2012; 29(6):2183-2189.