

The Impact of Financial Globalization on The Vulnerable Segments of
Society: A Study of Developing Countries, 1997-2007

by

Salmeh Banisadr

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Abstract

This paper studies the relationship between financial globalization and the socio-economic status of the vulnerable segments of society, including women and children in developing countries. To examine how these segments are affected by the wave of globalization, we study the impact of foreign direct investment, a measure for financial integration, on social issues including poverty, income inequality, child labour, and gender inequality. The expectations of both supporters and critics of globalization are discussed with regard to each social issue, and a series of empirical analyses on the relationship of FDI with these issues are performed using data on 90 developing countries for the years 1996- 2006. We find that financial globalization, measured by FDI, can lead to a reduction in poverty, income inequality, use of child labour, and gender inequality in these countries, thus improving status of the vulnerable groups within their societies.¹

¹ I would like to thank my supervisor Professor Suman Majumdar. I am grateful for his gaudiness, support, and for his inspiring lectures that motivated me to pursue this research.

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1. Introduction

Globalization is a broad term used to refer to the increasing integration of domestic economies into the global economy through trade, capital flows, and migration. As M. Intriligator states,

The term was coined in the 1980s, but the concept is an old one that has different interpretations to different people. Partly as a result of these different interpretations, there are very different reactions to “globalization,” with some policymakers, scholars, and activists seeing it as a force for advancing the world economy while others, again all three, seeing it as a serious danger to the world economic system. (2004)

According to trade theories, international trade is beneficial because it leads to specialization, division of labour, and economies of scale, all of which lead to an increase in productivity and efficiency, thus reducing costs and prices (Heckscher and Ohlin 1920s; Samuelson 1948).

Growth theories also predict that global financial integration boosts economic growth and raises society’s welfare by providing access to capital and technological advances (Solow and Swan 1956; Ramsey 1928; Cass 1965; Koopmans 1965). However, there is a great deal of disagreement on the impact of globalization on the welfare and the standard of living of societies in less-developed and developing countries. Supporters claim that globalization has been a force for growth and poverty reduction in many developing countries. As statistics show, since the late 1980s, hundreds of people have been lifted from poverty in developing countries, such as China, India, Uganda and Vietnam (David Dollar 2001). On the other hand, critics argue that the wave of globalization has led to an increase in job competition and job insecurity which have made unskilled households more vulnerable in developing countries. For instance, it is believed that after Mexico entered NAFTA, Chiapas, one of its richest states in terms of natural resources,

became its poorest state.

Given that globalization has major distributive implications in less-developed and developing countries, in this paper we intend to study its impact on various segments of society by focusing on the following three questions: First, are unskilled and low-income households bearing the damaging costs of globalization in the developing world? Second, is globalization responsible for an increase in the incidence of child labour? Third, are women of these economies likely to be among the losers of the globalization process?

In general, income inequality and poverty, child labour and gender inequality are among the most controversial topics within the globalization debate. Therefore, to capture and analyse different implications of globalization, we will address these topics in three main sections.

Following a brief introduction to financial globalization, section 3 investigates the impact of foreign direct investment (FDI), as a measure of financial globalization, on the welfare of those, who are more vulnerable in the developing world. For this study, we will use indicators of poverty and income inequality to analyse the impact of globalization on distribution. Section 4 focuses on the implications of financial globalization specifically on children, the most vulnerable segment of the society. In this analysis, both the incidence of child labour and children's primary school enrolment will be studied. Section 5 examines the impact of globalization on women, who are believed to be more deprived in developing countries. By studying the link between FDI and indicators of gender inequality, we investigate whether financial globalization has an impact on women's status in these countries. In the final section, based on our findings, we draw conclusions about whether globalization is responsible for worsening the living standards of these vulnerable segments of the society, or whether it can be a factor in improving their welfare and standard of living.

It is true that globalization creates both winners and losers between and within nations. However, the results from our cross-national analyses demonstrate that globalization has a net positive effect on the well-being of those living in developing countries, including women and children. We find that both indicators of poverty and income inequality are lower in countries which are more involved in international integration. Furthermore, developing economies that are more globalized have a lower incidence of child labour and a higher rate of children's school enrolment than do more closed economies. Finally, we show that financial globalization has a narrowing effect on gender inequalities in these countries. These results suggest that globalization should not be viewed as a danger to the society's welfare and an obstacle to development. Perhaps, to achieve poverty reduction and development goals, policymakers should focus more on other factors, such as problems within economic and political institutions, cultural norms, and social attitudes which may present serious obstacles on their path.

2. Financial Globalization

One of the main assumptions of neoclassical growth theories is that after liberalizing capital accounts, capital flows from capital-rich countries to capital-scarce countries (developing countries), where the rate of return to capital is higher. Hence, under this assumption, liberalization of capital account should lead to an increase in the level of capital, thereby accelerating the growth of investment and output in developing countries. In light of these assumptions, since the early and mid 1990s, many less-developed and developing countries began to modernize their capital account policies and to remove restrictions on the flow of capital.

Capital account liberalization allows international capital to enter developing countries in different ways--in particular, through portfolio equity flow, foreign direct investment and debt

flow. In this study, foreign direct investment (FDI), which is defined as a company from one country making a physical investment into building a factory or purchasing existing facilities in another country, will be our main indicator of financial globalization for the following two reasons. First, the most research on the impact of globalization on socio-economic status of societies focuses on trade liberalization; however, to have a transparent understanding of the effects of globalization, more research on its other dimensions, in particular, international flows of capital is needed. Secondly, comparing other indicators of financial integration, FDI inflow is growing more significantly in developing countries,² and even though there is considerable disagreement on its relative costs and benefits, only a few studies have empirically tested its implications on the social issues in these countries.

By providing firms with new markets, access to technology, cheaper production facilities, skills and funding, FDI can be a major factor in economic growth of less developed and developing countries. However, from the late 1990s, economists started to become suspicious of the robust effects of international capital flows, including FDI, on economic growth in these countries.

There is a widely-held perception that capital liberalizations may not deliver benefits to developing countries because there are many other factors at play. For instance, in “Who needs capital account convertibility?” Rodrik (1998) finds no impact of capital account liberalization on real variables and claims that the increasing financial integrations and unrestricted capital flow can have serious consequences to global financial stability.

² As Graham and Spaulding (2005) claim, in developing countries, FDI flows have increased from an average of less than \$10 billion in the 1970s to a yearly average of less than \$20 billion in the 1980s, and from \$26.7 billion in 1990 to \$208 billion in 1999, and now FDI inflows to developing countries comprise a large portion of global FDI. (Source: UNCTAD), http://www.going-global.com/articles/understanding_foreign_direct_investment.htm

Other studies suggest that international capital flow leads to “Allocation Efficiency” only when certain requirements, such as financial market development, institutional quality, effective policies, and trade integration, are met. As Prasad et al. (2006) claim, in developing countries international capital flow generates growth and welfare through indirect channels; however, premature capital account liberalization in economies where the threshold conditions are not met delays the realization of these benefits and can make the countries more vulnerable to a financial crisis. However, in another study, Henry (2007), by using the Policy Experiment approach, which examines the aftermath effects of such reform, proves that capital liberalization, which will lead to an increase in capital, temporary accelerates the economic growth. As the Solow growth theory predicts, this temporary increase in growth raises the path of national income to a higher but parallel trajectory, thus improving a country’s standard of living permanently (Solow 2000, pp. 182–83).

Indeed, globalization is controversial, but it is real and inevitable. Both opponents and supporters agree that the damaging effects of increasing economic integration should be accommodated by effective fiscal and monetary policies. For instance, they suggest that to offset the adverse impact of trade and capital flow it is important to have policies which facilitate labour mobility, promote new jobs and provide aid to less advantaged societies.

3. Globalization, Income Inequality and Poverty

This section addresses the question of whether Foreign Direct Investment, an indicator for financial globalization, has an adverse effect on income inequality and poverty in the developing world. While GDP per capita is often taken to be a measure of average welfare in society, it ignores distributional issues, which are often at the heart of globalization debate. Thus, in this study, we focus on income inequality and poverty which are both indicators of welfare of the

bottom half of the society. Inequality in distribution of income and poverty are believed to be positively correlated. An increase in income inequality can lead to an increase in the proportion of population that lives under the poverty. Although both indicators should be similarly affected by financial globalization, we attempt to study their changing patterns toward capital inflows separately.

3.1. Review of Literature

Growth theories suggest that financial integration increases economic growth by expanding access to capital, information, and technology and such growth should reduce poverty. However, like the impact of financial globalization on growth, economists have different perspectives toward its effect on distribution of income and poverty in developing countries. As Prasad et al. (2006) and many other economists argue, developing countries that are financially integrated are subject to a sudden stop of capital flows and financial crisis which are very costly to the poor. This is evident in Indonesia and Mexico. After the currency crisis in 1997, Indonesia experienced a 50% increase in poverty which is indeed significant. In Mexico, due to the peso crisis, the poverty rate in the year 2000 became higher than that in the early 1990s. As Rodrik states,

Think of capital flows as a medicine with occasionally horrific side-effects.

The evidence suggests that we have no good way of controlling the side effects. Can it be good regulatory policy to remove controls on the sale and use of such a medicine?" (1998)

Yet, others argue that globalization is inevitable and it should not be blamed for such outcomes. From historical evidence, it is certain that globalization creates both winners and losers. For instance, Pakistan has experienced a 40% reduction in poverty since liberalization of its capital account in the early 1990s (See figure one). The poverty reducing effects of financial integration

are also documented in many countries like China, India, and Vietnam. As mentioned before, some scholars emphasize the role of the state and its policies on the impact of globalization. In “On the links between globalization and poverty”, Harrison and McMillan (2006) suggest that complementary policies allow the poor to share the benefits from globalization. They argue that countries like Indonesia have been able to recover from financial crisis quickly by having effective policies in place. The poverty rate in Indonesia is now lower than its rate at the start of the financial crisis.

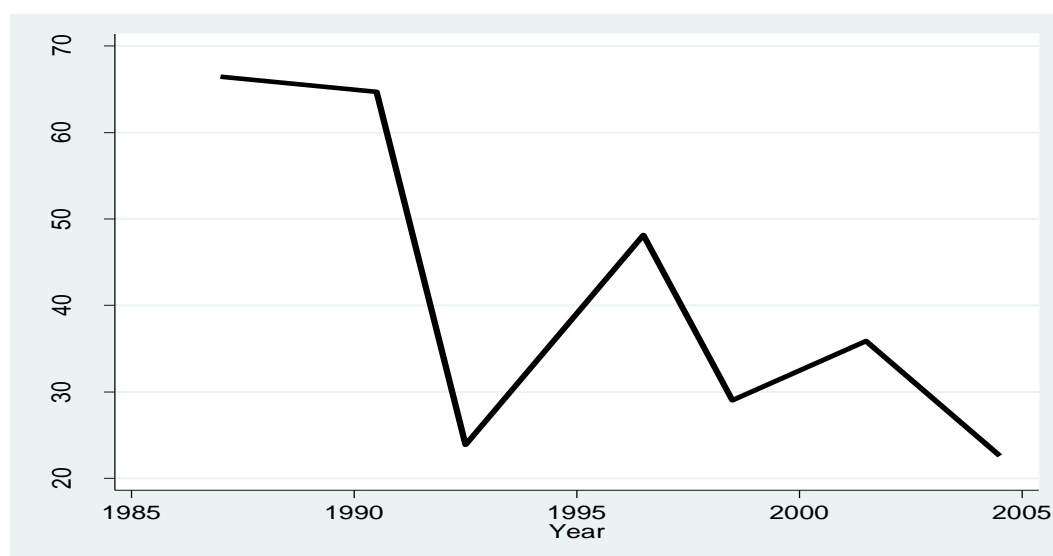


Figure 1. A sharp reduction of poverty in Pakistan in early 1990s

The existing literature on the impact of financial globalization on income inequality is also controversial. According to traditional trade theories, free trade should raise the incomes of the abundant factor and lower the income of the scarce factor of production. Since in developing countries the abundant factor is labour, trade and investment liberalization should decrease income inequality in these countries by increasing the returns to labour (wages) and decreasing the returns to capital (profits). Contrary to this theory, the most common view of increasing

international integration is that it raises inequality between and within nations. In particular, some analysts argue that the FDI and the investment of multinational corporations (MNCs) have increased inequality in developing countries for the following reasons:

- MNCs induce the host governments to reduce welfare expenditures and force labour unions to reduce wages; therefore, they hurt both the lower and middle classes.
- MNCs can credibly threaten to leave the country and relocate their production elsewhere. This reduces wages because it reduces the bargaining power of labour.³
- MNCs are more likely to hire skilled labour and leave the unskilled labour unemployed and this would lead to widening of the income inequality by creating an economy with a small advanced sector and a large unskilled sector.⁴

However, Jensen and Rosas (2007) in an empirical case study on Mexico, a middle income country with a large population of unskilled labour and large level of FDI inflow, find no evidence to support these claims. They argue that, by increasing a country's level of capital, FDI reduces the return to capital and increases the return to labour, thus narrowing the income inequality in the country. As they state, "foreign capital competes with domestic capital for domestic workers, driving up wages and decreasing the profitability of domestic firms. This effect speeds up convergence of the incomes of labour relative to capital, decreasing income inequality."

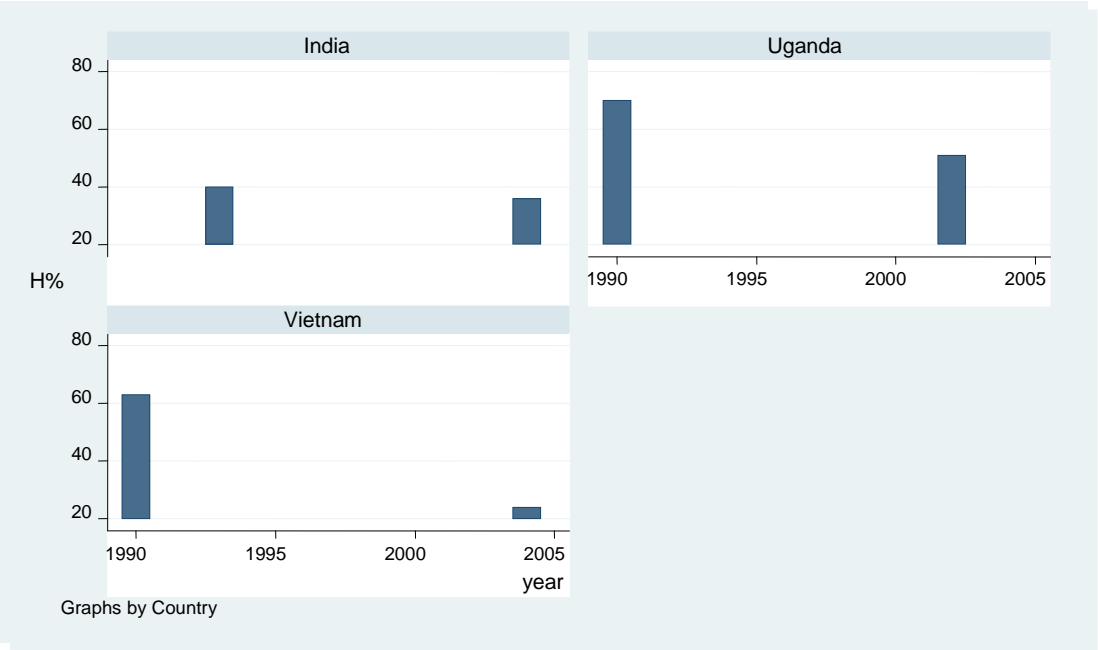
Despite the vast research on the effect of international capital flows on growth of economic

³ Rodrik 1997, and Nafziger, 1997

⁴ Rodrik 1997, and Nafziger, 1997

activities, little research has examined the direct effects of financial globalization on poverty and income inequality. As Reuveny and Li (2003) state, “Existing studies offer conflicting theoretical expectations of the effects of economic openness on the distribution of income, but these studies do not provide rigorous empirical analyses of their claims.” In the next part, after a brief review of the case study by Jensen and Rosas (2007), we examine the effect of FDI on income inequality and poverty to see whether FDI has an adverse effect on the society’s welfare as the majority of the literature claims.

Figure 2. In all three countries poverty rate (H%) has reduced since 1990.



3.2 Statistic and Data

In “Foreign Direct Investment and Income Inequality in Mexico 1990–2000” Jensen and Rosas (2007), study 32 Mexican states and show that growth in foreign direct investment is associated with a decrease in income inequality within Mexico. They argue that this analysis provides a natural experiment to test for the impact of FDI on income inequality in a middle-income

country. In this study, they focus on the liberalization of capital flow in Mexico from 1990 to 2000 to compare income inequality before and after the reform. To test for the link between FDI and inequality they first estimate the cross-sectional OLS regression of the following forms:

$$Gini_{2000} = \beta_0 + \beta_1 FDI_{1990-2000} + \beta_2 Gini_{1990} + \beta_3 GSP_{1990} \quad (1)$$

where $Gini_{2000}$ is the Gini Coefficient⁵ of individual states in the year 2000, after liberalization of capital flow, while, $Gini_{1990}$ is associated with the income inequality in the years preceding liberalization. $FDI_{1990-2000}$ is the average growth rate of per capita foreign direct investment inflow over the years 1993 to 2000. Finally, GSP_{1990} is the gross state income per capital of individual states in the year 1990. Results from this analysis show that an increased level of FDI is negatively related to the Gini Coefficient of 2000, which means that the inflow of FDI is associated with a decrease in income inequality. However, as the authors argue, the FDI flow can be endogenous, leading to inefficiency, bias, and inconsistency of the OLS estimates. Therefore, to mitigate these problems, they estimate an instrumental variable two-stage least squares (IV-2SLS) regression model in the following forms:

$$Gini_{2000} = \beta_0 + \beta_1 FDI_{1990-2000} + \beta_2 Gini_{1990} + \beta_3 GSP_{1990}$$

$$FDI_{1990-2000} = \alpha_0 + \alpha_1 Gini_{1990} + \alpha_2 GSP_{1990} + \alpha_3 Education + \alpha_4 Distance \quad (2)$$

where $Distance$ is the minimum distance from the six main U.S borders, and $Education$ is the average number of years of schooling. In this analysis, they included income inequality at the time of liberalization to control for the possibility of reverse causation. As they and others claim, a high level of income inequality can lead to social conflict which is a risk for firms. Therefore,

⁵ Gini Coefficient is an indicator of income inequality.

to avoid this risk, MNCs tend to invest in regions with a lower income inequality. It is also believed that MNCs tend to locate their operations in Mexican regions that are either closer to the U.S border, or have a higher level of skilled workers.

Results from the IV regression are similar to those from the OLS estimate--an increase in FDI is associated with a decrease in income inequality--however, in IV estimation the magnitude of the impact of FDI flow on income inequality is higher.

3.2.1. *FDI and Income Inequality*

For our empirical analysis, we use a cross-sectional dataset composed of 60 low-income and middle-income countries for the years 1999-2007. The World Bank's recent country classification⁶ was used as the source in identifying these countries. World Bank considers all low- and middle- income countries as "developing" countries. To estimate the impact of the FDI on income inequality, we use the following cross-sectional OLS regression, which is similar to Jensen and Rosas's model:

$$Gini_{00s} = \beta_0 + \beta_1 FDI_{99-07} + \beta_2 Gini_{90s} + \beta_3 \ln GDP_{99-07} \quad (3)$$

where $Gini_{00s}$ corresponds to an individual country's income inequality in the years after capital account liberalization, and $Gini_{90s}$ corresponds to income in equality in pre-liberalization years. FDI_{99-07} is the average rate of stock of foreign direct investments relative to GDP over the years 1999 and 2007. And, $\ln GDP_{99-07}$ is our measure of per capita income. The data is obtained from the World Bank's Development Indicators Index⁷. Table 1 provides statistics for the key

⁶<http://web.worldbank.org/WBSITE/EXTERNAL/DATASTATISTICS/0,,contentMDK:20421402~pagePK:64133150~piPK:64133175~theSitePK:239419,00.html>

⁷ <http://iresearch.worldbank.org/PovcalNet/povcalNet.html>

variables of interest. In our sample data, in 1999s, Romania has the lowest Gini Coefficient of 28.2, and Sierra-Leone has the highest one of 62.8. Whereas, in 2000s, Azerbaijan receives the lowest Gini Coefficient of 16.8, and Colombia receives the highest one of 58.4. Interestingly, Azerbaijan is among the countries which have received the highest average FDI (18% of GDP) over the years 1999-2007. For the same period of time, Liberia receives the highest FDI inflow as a share of GDP, 20.5, while Indonesia receives the lowest amount, 0.03.y

Table 1. Descriptive variable information

	<i>N</i>	<i>Minimum</i>	<i>Maximum</i>	<i>Mean</i>	<i>Std. Dev.</i>
<i>Gini Coefficient-99s</i>	63	28.2	62.8	44.8	9.8
<i>Gini Coefficient-00s</i>	63	16.8	58.4	42.7	8.3
<i>FDI 99-07</i>	92	0.03	20.5	3.8	3.8
<i>ln GDP 99-07</i>	93	4.72	9.48	1.09	1.2

Table 2 provides the results of the cross-sectional OLS estimation of the effect globalization on income inequality. The coefficient estimate of FDI is negatively correlated in income inequality. Based on this result, one percent increase in the stock of FDI relative to GDP is associated with 0.6 unit decrease in our measure of income inequality, *Gini*₂₀₀₀. Therefore, we conclude that much of the criticism against liberalization of capital flow on distribution of income is perhaps misplaced. As we expected, the *Gini*_{90s} has a significant and positive effect on our dependent variable, *Gini*_{00s}. The coefficient estimate of logged GDP is also positively correlated with a country's measure of income inequality and is significant. One percent increase in GDP is associated with 3 units increase in a country's Gini Coefficient. This result can be consistent with the Kuznets hypothesis, which claims that economic inequality increases over time while a

country is developing, then after reaching a critical average income; income inequality begins to decrease (S. Kuznets, 1955).

Table 2: OLS results: Foreign Direct Investment and Income Inequality

Dependent variable: Gini Coefficient of 2000

<i>FDI_{99,07}</i>	-0.60** (0.2)	-0.41** (0.19)
<i>Gini_{90s}</i>	0.51** (0.07)	0.33** (0.08)
<i>ln GDP</i>	3.07** (0.66)	1.71** (0.96)
<i>Regional Dummies</i>	<i>No</i>	<i>Yes</i>
<i>Adj R – squared</i>	0.58	0.68

Note: Number of observation 63. ** $p \leq .05$

In addition to the explanatory variables included in equation 3, we also add regional dummies to capture some cultural, historical, and labour force skills differences between selected countries. These regions include: sub-Saharan Africa, Northern Africa and the Middle East, Eastern Europe and Central Asia, East Asia and the Pacific, and Latin America and the Caribbean. As seen in column 2, the coefficient estimate of FDI still remains negative and significant; however, its magnitude is slightly reduced.

3.2.2. *FDI and Poverty*

To test for the impact of foreign direct investment on poverty, using a similar methodology, we estimate the following OLS regression form:

$$H\%_{(00s)} = \beta_0 + \beta_1 FDI_{99-07} + \beta_2 H\%_{(90)} + \beta_3 \ln GDP \quad (4)$$

where H% is a World Bank’s measure of poverty. This indicator measures the percentage of population whose consumption and income is below the poverty line. For example, in our data for the early 1999s, Guinea, with H% of 92.5, has the highest rate of population who lived below the poverty line, while Argentina, with H% of 0.13, has the lowest rate of poverty. In the mid 2000s, Azerbaijan has the lowest rate of poverty, 0.03, while Tanzania has the highest one, 88.52. In our data, on average the rate of poverty has been reduced approximately by 10 percent since the early 1999s. We provide summary statistics for our indicator of poverty in table 3. Other explanatory variables are the same as the ones in the previous regression.

Table 3. Descriptive variable information

	<i>N</i>	<i>Minimum</i>	<i>Maximum</i>	<i>Mean</i>	<i>Std. Dev.</i>
<i>H% 1990s</i>	63	0.13	92.5	35.2	27.7
<i>H% 2000s</i>	63	0.03	88.5	26.7	23.9

The results of the cross-sectional OLS estimation of the effect FDI on poverty are provided in Table 4. Here, the coefficient estimate of FDI is also negatively related to H%, and is significant at 1% level of confidence. However, after controlling for regional differences by including regional dummies, the coefficient estimate of FDI becomes more significant both economically and statistically (see column 2). Based on this analysis, one percent increase in stock of FDI relative to GDP is associated with one unit decrease in H%, an indicator for poverty. Therefore, we conclude that liberalization of the economy, as measured by FDI, in general, does not increase poverty in less-advantaged economies. In fact, it can be a factor in reduction of poverty

in these economies. Furthermore, as expected, the coefficient estimate of logged GDP has a significant and negative effect on our dependent variable. One percent increase in *ln GDP* is associated with 7 percent decrease in the rate of poverty. Indeed, economic growth plays a key role in reduction of poverty in less-developed and developing countries.

Table 4: OLS results: Foreign Direct Investment and Poverty (H%)

Dependent variable: H% in 2000s

<i>FDI₉₉₋₀₇</i>	-0.75* (0.42)	-1.01** (0.44)
<i>H%_{90s}</i>	0.51** (0.08)	0.42** (0.10)
<i>ln GDP</i>	-7.2** (2.24)	-6.92** (2.63)
<i>Regional Dummies</i>	<i>No</i>	<i>Yes</i>
<i>Adj R – squared</i>	0.79	0.81

Note: Number of observation 63. ** $p \leq .05$, The H% is the percentage of population under poverty.

By estimating the cross-sectional OLS regressions, we find that Foreign Direct Investment inflow not only has no adverse effect on income inequality and poverty, but it also tends to level the distribution of income and reduce poverty. However, as many scholars emphasize, the result from above cross-sectional regressions may suffer from the problems of endogeneity, omitted variable bias, and selection bias.

As some studies find, multinational corporations tend to invest in countries with political stability, better institutions and regulations, and high labour skills, all of which are negatively related to income inequality and poverty. For instance, countries with higher rate of poverty are also typically low-skilled, so such low-skilled countries may attract lower FDI than countries

with lower rate of poverty. Moreover, as mentioned above, MNCs may avoid investing in countries with higher income inequality. This possible two-sided relationship between FDI and these variables may create bias estimates.

Table 5. Correlations between FDI and some variables which are believed to be proper instruments for FDI

	<i>Political Stability</i>	<i>Regularity Quality</i>	<i>Rule of Law</i>	<i>Political Freedom</i>	<i>Population</i>	<i>Area</i>	<i>Distance</i>	<i>Latitude</i>
<i>FDI</i>	0.04	0.01	0.05	- 0.05	-0.3	-0.06	-0.12	0.02

Note: No. of observations: 84, the data on political factors are obtained from the *Worldwide Governance Indicators*⁸, 1999-2008, and the data on Population, area, and distance is taken from the *CEPII research center's* databases.⁹

A common solution to mitigate this problem is to estimate an instrumental variable two-stage least squares (IV-2SLS) regression, using instruments that are correlated with FDI, but not correlated with the dependent variables Gini coefficient, or H%. As existing studies suggest, FDI should be correlated with factors, such as political stability and freedom, distance, latitude populations, years of schooling, and urbanization. However, as seen in table 5, FDI shows weak, if any correlation with these variables. Thus, without having the right instrumental variables in hand, estimating two-stage least squares regression is meaningless. Nonetheless, this analysis provides sufficient evidence that allows us to conclude: financial globalization, which measured from FDI, has no adverse impact on distribution of income and poverty, and it positively affects

⁸ <http://info.worldbank.org/governance/wgi/index.asp>

⁹ <http://www.cepii.fr/anglaisgraph/news/accueilengl.htm>

the societies' welfare and standard of living in the developing world.

4. Globalization and Child Labour

In the previous section, we studied the impact of financial globalization on the distribution in well-being of the society. In this section, we address the same question while focusing only on the welfare of children since children are often argued to be a particularly vulnerable segment of the society. Here, we study link between foreign direct investment and the incidence of child labour, which is in fact a threat to children's welfare and development.

According to a recent International Labour Organization report (ILO, 2006), in 2004 approximately 166 million children between the ages of 5 and 14 years were classified as child labourers, 75 million of whom were engaged in hazardous work. As research shows, the issue of child labour is more severe in the Asian- Pacific region and sub-Saharan Africa, where on average more than 20 percent of children are in the labour force (Iram and Fatima, 2008). In Mali and Bhutan, for example, the labour force participation rate of children aged 10-14 reaches 50 percent. As Basu and Tzannatos (2003) state, "child labour inhibits the acquisition of human capital through loss of education and through other channels, for instance, by damaging health or affecting attitudes". Indeed, child labour is an obstacle to national poverty reduction and the achievement of development goals.

Proponents of globalization argue that free trade and capital flow can reduce the incidence of child labour by providing more job opportunities to households, raising their earning, and improving living standards. Opponents, on the other hand, argue that international trade and investment increase the demand and supply for unskilled and cheap labour including child labour. They also believe that in order to gain competitive advantage in the international market,

developing countries tend to maintain a low labour cost and allow or tolerate child labour. For example, in India, Pakistan, and Nepal it is reported that children have been used in the production of exporting commodities such as carpets, textiles, and clothing (Iram and Fatima, 2008). Multinational corporations are also accused of engaging in exploitative activities. For example, Grote et al. (1998) point out that “high-profile cases such as Nike, Reebok and Adidas show that multinational corporations do at times subcontract to enterprises that employ children.” Following a brief review of the literature, we address the question of whether FDI, a measure of financial globalization, has an impact on the incidence of child labour in less-developed and developing countries.

4.1. Review of literature

4.1.1. Discussion of Theories

Theories on determinants of child labour are relatively abundant; poverty and factors related to poverty, such as family size and education level of the parents are discussed as the main determinants of child labour in most studies. In the Basu and Van (1998) framework children work not because parents are selfish but because their additional income is necessary for survival. In this model, if parents’ income were above a threshold, the parents would not send their children to work. In other words, children’s education or leisure is a luxury good for households. When adults’ incomes are very low, households cannot afford to keep children out of the labour force, but when their incomes start to rise they take children out of the workplace. As Basu and Tzannatos, (2003) argue, each household has a minimum or acceptable level of consumption, only when adults work full-time and income falls short of the acceptable consumption are children sent to work.

In another important theory developed by Baland and Robinson (2000), child labour functions as a mechanism for consumption smoothing. As the authors argue, “child labour is socially inefficient when it has a sufficiently adverse effect on such ability, but it may nevertheless persist either when parents leave their children no bequests or when capital markets are imperfect.” Based on this model, an increase in income can lower child labour by overcoming liquidity constraints if the returns to children’s education are higher in present discounted value terms than the returns to their economic activities.

In addition, Shelburne (2001) argues that the opportunity cost of children’s education is higher when there are few schooling opportunities, so this factor can also have an impact on the incidence of child labour. In fact, some studies show that parents have responded to programs and policies that increase their incentive to send their children to school (Basu and Tzannatos, 2003). For example, Dreze and Kingdon (1999) find that in India, girls’ school enrolment rate is 15 percent higher when schools provide a mid-day meal.

Based on child labour theories, many academic discussions of globalization and its impact on child labour emphasize the impact of trade and FDI on family incomes and the relative wages of unskilled labour, including those of children. (Davies and Voy , 2007). For instance, Ranjan (2001) shows that opening to trade has two implications for the incidence of child labour in developing countries where unskilled labour is abundant. Trade liberalization raises the wage of unskilled workers in these countries, so it reduces the returns to children’s education, thus making it more likely for parents to send their children to work. However, at the same time, the income of unskilled parents increases and they become less credit constrained. This income effect of trade could in fact lead to a reduction of child labour. Therefore, the overall effect of trade on child labour is ambiguous and depends on which of the two dominates: income or

substitution effects.

The same theory applies to the impact of FDI on child labour when MNCs hire more unskilled workers. However, when they hire relatively more skilled labour and pay higher than average wages, the implications are different. In this case, FDI should lead to a reduction of child labour by increasing the returns to skill and education and reducing the returns to child labour. In short, “the overall, net effect of FDI on child labour depends on the respective magnitudes of the substitution and income effects as well as the skill level of the labour that multinationals hire”(Davies and Voy, 2007).

4.1.2. Empirical studies

To study the link between globalization and child labour, most empirical studies have focused on trade openness, and only a few have examined the effect of international capital flow on child labour in developing countries.

In a recent study, Davies and Voy (2007) examine the effect of trade and FDI on child labour by estimating an instrumental variable two-stage least squares (IV-2SLS) regression. Contrary to common fears, they find that FDI is negatively correlated with child labour. However, after controlling for per capita income, the coefficient estimate of FDI is no longer significant. As they claim, “the effect of FDI on child labour may actually be a result of the combined indirect effects on FDI on income (positive) and the direct effect of income on child labour (negative). As a result, the FDI coefficient is no longer significant when this indirect effect is picked up directly by per capita income.” Using similar data--the labour force participation rate of 10–14-year old children for 1995--Edmonds and Pavcnik (2004) examined the impact of trade openness on children’s economic activities in 130 countries. They also find that greater openness is associated

with a lower incidence of child labour; however, their results do not reject the hypothesis that trade openness has no impact on child labour except through its likely positive effect on income.

At the cross-national level, Neumayer and DeSoysa (2005) use both FDI and trade, as measures for a country's openness, to explain the economic activities of children. In this research, in addition to the labour force participation rate of 10–14-year old children, the nonattendance rate and a count measure of economic sectors with child labour incidence are used as complementary indicators of child labour. The result is the same for all three dependent variables: countries with higher levels of trade and FDI have a lower incidence of child labour. However, their coefficient estimates of FDI and trade are significant only at the 1% level and their magnitudes are also very small.

Cigno et al. (2002), also look at the link between trade openness and child labour, using data from 1980, 1990, 1995, and 1998. They also use the nonattendance rate in the primary schooling variable as an indicator of child labour. Employing the trade ratio (exports plus imports over GDP), they find a positive correlation between child labour and trade openness. However, using Sach and Warner's (1995) dummy variable for trade openness they find a negative correlation between the two variables. Yet, they stress that the result should not be interpreted as a causal relationship. They interpret their result as following: "Countries with little international exposure differ more widely with regard to child labour than countries well integrated in the global economy".

Edmonds and Pavcnik (2004) provide another study of micro-data from the 4,000 household panel Vietnam Living Standards Survey. They studied the effect of an increase in price of rice, which was resulted from trade liberalization in mid 1990s, on child labour. Based on their

findings, a 30 percent increase in price of rice is associated with 9 percentage point decline in child labour. “The results show that even though the price increase has rendered child labour in rice farming more attractive via raising its rate of return, the income effect led to an even stronger reduction of child labour”. (Neumayer and DeSoysa ,2005)

Contrary to the case of Vietnam, in Pakistan, Iram and Fatima (2008) find that the substitution effect of international trade dominates. In this research, they study the causal link between foreign direct investment, trade openness, poverty, agriculture sector as a share of GDP, urban population and child labour over the period 1970-2003. Their findings show that trade liberalization has increased the production of exportable goods and raised the demand for child labour as well as child-wages. However, based on their findings, they claim that FDI and Child labour are negatively correlated, indicating that because of low labour standard and high incidence of child labour, Multinational corporations are not likely to invest in Pakistan.

In most cross-sectional analysis, the labour force participation rate of 10–14-year old children for the year 1995 has been used as the main indicator of child labour. However, this measure of child labour does not include the work force participation rate of children younger than 10 years old and “it leaves out a large, arguably the most worrisome, part of the phenomenon in question.” Cigno et al., (2002) Moreover, the data for 1995 may not be a proper indicator to use because most developing countries initiated trade and capital account liberalization in early or mid 1990s, so the impact of trade and FDI on child labour could have not been captured in the data of 1995.

4.2.Statistic and Data

To estimate the link between FDI and child labour one needs to be concerned about two potential

issues. First, the child labour datasets are of questionable use due to measurement problems. As Neumayer and DeSoysa state, “In many countries the rate is based on estimates and projections rather than reliable surveys.” In many regions, measures for child labour do not include children working in the informal economy, family business or illegal activities. The second issue is that foreign direct investments can be endogenous to child labour. As mentioned in section 3, countries with higher unskilled labour, including child labour may attract lower amounts of FDI. In this section, because of these limitations, we estimate three central equations, using three different dependent variables. In first equation, as the dependent variable, we use the average of labour force participation rates of 5-14-year old children over the years 1999-2007. To minimize the endogeneity issue, in the second equation, we use the differences in the labour force participation rate between the years 1995 and 2003 as our dependent variable, and the differences in FDI inflows as our explanatory variable. The reason is that, differences in FDI are less likely to be endogenous to differences in child labour. Finally, in our last equation, because of the potential measurement error in child labour data, we employ the non-attendance rate in primary school as an additional proxy for the incident of child labour.

4.2.1. FDI and Child labour

The methodology used in this part is greatly inspired by the empirical work of Davies and Voy (2007). Therefore, prior to our analysis, we first briefly review their method and findings:

In “The Effect of FDI on Child Labor”, Davies and Voy (2007), using a cross-sectional data composed of 145 countries, estimate the OLS regression of the following forms:

$$Child\ labour = \beta_0 + \beta_1 \ln FDI + \beta_2 \ln GDP + \beta_3 Openness + \beta_4 Income + \alpha X_i \quad (5)$$

where *child labour* is the labour force participation rate of 10–14-year old children. *ln FDI* is the

log of level of FDI, and *Openness* is measured as the sum of exports and imports as a percentage of GDP. And, X_i is a vector of control variables, such as regional dummies, average years of schooling, and percentage of population living in rural areas. All the variables are for the year 1995, and are taken from World Development Indicator Index.

Results from their analysis show that FDI is negatively related to the incidence of child labour. However, as mentioned before, the FDI flows can be endogenous, leading to inefficiency, bias and inconsistency of the OLS estimates. To tackle this problem, they also estimate an instrumental variable two-stage least squares regression model in the following forms:

$$Child\ labour = \beta_0 + \beta_1 \ln FDI + \beta_2 \ln GDP + \beta_3 Openness + \beta_4 Income + \alpha X_i$$

$$\ln FDI = -3.84 - 0.02 latitude + 0.63 \ln pop - 0.04 rural + 0.0001 \sum \frac{GDP_i}{distance_{ij}} + 0.08 \ln area - 0.20 freedom + 0.0001 \sum \ln colony * GDP \quad (6)$$

After estimating the equation 6, they predict the value of the regressand which becomes their instrument for FDI. As they argue, this instrument is a valid instrument to use since it is correlated with the FDI and not necessarily with the incidence of child labour. Therefore, any relationship between the instrument of FDI and the incidence of child labour will be a causal relationship, the effect of FDI on child labour, and not the reverse. After they control for endogeneity of FDI, the magnitude of the coefficient estimate of FDI triples and remains significant. However, after including per capita income to their analysis, FDI is no longer significant. Hence, they conclude that the effect of FDI on child labour is principally channelled through income.

For our first analysis, we used a cross-sectional dataset composed of 90 developing countries for

the years 1999-2007. As a measure of child labour, we use the average rate of labour force participation of children 5-14 years old. This data has value for two reasons: first, it includes the labour force participation rate of children younger than 10 years old, and second, it is recently updated. The dataset is obtained from the Multiple Indicator Cluster Survey (MICS), which has been designed by UNICEF to collect and provide reliable and internationally comparable data on child-related issues.¹⁰

Table 6. Descriptive variable information

	<i>N</i>	<i>Minimum</i>	<i>Maximum</i>	<i>Mean</i>	<i>Std. Dev.</i>
<i>LFPR 5-14 (99-07)</i>	93	1	53	18.31	13.9
<i>FDI</i>	92	0.02	20.4	3.8	3.8
<i>ln GDPppp</i>	92	5.9	9.8	7.8	0.9
<i>Rural Population</i>	90	8.3	91	55.4	20.8
<i>%Agriculture</i>	90	3.4	80.3	43.3	20.1
<i>Attendance in primary (99-07)</i>	85	0.71	108.2	32.6	27.9
<i>Exp-on-Education</i>	85	0.8	9.3	3.5	1.6
<i>LFPR 10-14(1990)</i>	84	1	59	22.7	14.4
<i>LFPR 10-14(2003)</i>	84	0	49	17.8	13.8
<i>Δ LFPR 10-14₀₃₋₉₀</i>	84	-13	20	4.8	3.8

Table 6 provides statistics for the key variables of interest. In our dataset, the incidence of Child labour is the lowest in Romania and Trinidad and Tobago, while it is the highest in the African

¹⁰ <http://www.childinfo.org/mics.html>

nations, in particular, Chad and Ethiopia. In these countries, the rate of participation of children between 5 to 14 years is above 50 percent.

To study the link between Child labour and FDI, we estimate following cross-sectional OLS regression, which is similar to the equation (5):

$$\text{Child labor} = \beta_0 + \beta_1 FDI + \beta_2 \ln GDP + \beta_3 \%Agri + \beta_4 \%Rural + \alpha \text{ Regional Dummies}$$

(7)

FDI is the stock of foreign direct investments relative to GDP, and *ln GDP* is the natural log of GDP per capita in purchasing power parity, which is a measure for income. *%Agri* is the value added by agriculture as a share of GDP, and *%Rural* is percentage of population living in rural areas. The reason to include these two variables is that child labour is believed to be more common in rural areas and agricultural activities. Also, to control for regional differences I included dummy variables for sub-Saharan Africa, Northern Africa and the Middle East, Eastern Europe and Central Asia, East Asia and the Pacific, and Latin America and the Caribbean. All the explanatory variables are taken from the World Bank Development Indicators.

The results of the cross-sectional OLS estimation of the effect FDI on Child labour are provided in Table 7. The coefficient estimate of FDI is negative and statistically significant at 5% level of confidence. Based on this result, every 1 percentage point increase in *FDI* corresponds to 0.7 percentage point decrease in the incidence of child labour. The coefficient estimate of income (*ln GDPp.c*) is highly significant both statistically and economically as predicted by the theories on determinants of child labour. One percent increase in GDP per capita is associated with approximately 10 percent decrease in the incidence of child labour. Therefore, considering the income and substitution effects of FDI on incidence of child labour, our estimates show that, in

general, income effect dominates the substitution effect in developing countries.

Table 7: OLS results: Foreign Direct Investment and Child labour

Dependent variable: labour participation rate of 5-14 years of age, 1999-2007

<i>FDI₉₉₋₀₇</i>	-0.83** (0.36)	-0.68** (0.27)	-0.73** (0.28)
<i>ln GDPp.c.</i>		-9.87** (1.17)	-7.96** (1.62)
<i>%Agriculture</i>			0.14** (0.05)
<i>%Ruralpop</i>			0.05 (0.07)
<i>Regional Dummies</i>	<i>No</i>	<i>No</i>	<i>Yes</i>
<i>Adj R - Squared</i>	0.04	0.46	0.53

Note: Number of observation 90. ** $p \leq .05$

However, in this this analysis, our coefficient estimates could be bias due to the endogeneity issues. As explained in the previous section, because of the lack of proper instruments for FDI, we are not able to estimate an Instrumental Variable regression. For this reason, we expand our analysis to the next part by using indicators for Child labour and FDI, which are believed to be less likely subject to endogeneity problem.

4.2.2. FDI and Child labour: Differences

In this part, as the dependent variable, we use the differences of the labour force participation rate of 10–14 year old children between 1995 and 2003. This data is obtained from the World Development Indicators report, 2006. As shown in equation (8), the explanatory variable (FDI) is

also the changes in FDI as a share of GDP between the same years.

$$\Delta Child\ labour_{03-93} = \beta_0 + \beta_1 \Delta FDI_{03-93} + \beta_2 GDP_{93} \quad (8)$$

Table 8 provides the results from the OLS estimation. The coefficient estimates of FDI is not statistically significant, but it has a positive sign which means that the incidence of child labour has reduced more in countries that become more open to flows of FDI. However, since β_1 is not statistically significant, we fail to reject the hypothesis that changes in FDI have no relationship with changes in incidence of child labour.

Table 8: OLS results: Foreign Direct Investment and child labour

Dependent variable: Changes in the incidence of Child labour from 1993 to 2003

ΔFDI_{03-93}	0.029 (0.114)	0.033 (0.117)
$\ln GDP$		0.0003 (0.0001)
<i>Adj R - Squared</i>	0.01	0.03

4.2.3. FDI and Non-Attendance Rate in Primary School

As discussed above, the labour force participation rates of children have limitations. According to Basu and Tzannatos (2003), “These figures have to be treated with caution, however, because there are problems with both undercounting and overcounting.” For this reason, in this part we estimate the equation (7), using non-attendance rate in primary school (the complement to the enrolment rate in primary school) as an alternative measure for incidence of child labour. The indicator for non-attendance rate in primary school is an average over the years 1999 and 2007,

and is taken from the World Bank Development Indicators Index. This measure is not without problems neither, but as some researches claim, it captures different aspects of the child labour problem. As table 9 presents, the coefficient estimate of FDI is negatively (positively) related to non-attendance (enrolment) rate in primary school and it is significant. Based on this result, one percent increase in FDI inflows relative to GDP is associated with approximately 2 percent decrease (increase) in non attendance (enrolment) rate in primary school.

Table 9: OLS results: Foreign Direct Investment and children's education

Dependent variable: Non-attendance rate in primary school, 1999-2007

<i>FDI₉₉₋₀₇</i>	-1.96** (0.81)	- 1.85** (0.66)	-0.99* (0.75)
<i>ln GDP_{p.c}</i>		-10.28** (4.24)	8.55** (4.74)
<i>%Ruralpop</i>		-0.21* (0.15)	-0.26* (0.16)
<i>Exp-Education</i>			4.86** (1.56)
<i>Rregional Dummies</i>	<i>No</i>	<i>Yes</i>	<i>Yes</i>
<i>Adj R - Squared</i>	0.27	0.43	0.5

Note: Number of observation 80 in column 1 and 2, and 76 in column 3, *Eduexp* is government expenditure on education for the years 1999-2007. ** $p \leq .05$, * $p \leq .1$

In addition, we include government expenditures on education (*Exp-Education*) since it is expected that when the government invests more on education, the opportunity cost of education becomes lower for households. Interestingly, as seen in column 3, after controlling for government expenditure on education, the coefficient estimate of FDI is reduced by one unit and

is no longer significant at 5% level. One possibility is that increased foreign direct investment raises the government revenues through taxes, which allows the government to invest more on public education (David Dollar, 2003). This can reduce the cost of education for low-income households, thereby increasing the primary school enrolment rate of children (Shelburne, 2001). As a result, the impact of FDI is reduced when this indirect effect of FDI on education is picked up by government expenditure.

In short, based on the results of our three different analyses, we find that globalization, measured by FDI, does not have an adverse impact on the children's well-being. In fact, a lower incidence of child labour and a higher rate of children's enrolment in primary school in more globalized countries show that financial integration can improve the quality of life of children in developing countries. In the next section, we will examine globalization through the lens of women who are believed to be more deprived in poorer countries (Gray et al., 2006).

5. Globalization and Gender Inequality

Gender inequalities are more severe in the developing world than in developed countries (Naeem and Kalim, 2006). In poorer countries, women are not only disadvantaged in the labour market, but they also have less access to health, nutrition, and education relative to men. As Datta Gupta, (2002) states, "in recent decades, there has been a significant and growing feminisation of poverty." Today 70 percent of people who are living in poverty are women.

As mentioned before, gender inequality is also a controversial topic within the globalization debate. Proponents of globalization argue that free trade and capital flows can have a narrowing effect on gender inequalities by opening avenues in which women can improve their status and quality of life (Gray et al., 2006). Critics, however, claim that globalization has not only failed to

reduce the gender inequalities in developing countries, but it has also created new ones. In this section, following a brief review of the literature, we aim to study the effect of financial globalization on women's status and examine whether FDI, a measure of financial globalization, influences gender inequality in developing economies.

Gender inequality--the extent to which females and males have different rights, resources, opportunities, and power-- is a major source of poverty in less-developed and developing countries. For instance, in Caribbean economies, women's unemployment rates are almost double that of men's. Also, in many African nations such as Uganda, except for the agricultural sector, women's earnings are roughly 40 per cent below those of men (Appleton et al., 1996). Like the issue of child labour, gender inequality, which often leads to poor educational and health outcomes of women, is an obstacle to the achievement of development goals in less-advantaged economies. Based on the *World Survey on the Role of Women in Development*, the United Nations claims that "Economic development is closely related to the advancement of women. Where women have advanced, economic growth has usually been steady; where women have been restricted, there has been stagnation" (Richards and Gelleny, 2007).

Supporters of globalization argue that trade and capital inflows in poor countries provide women with more job opportunities, thus improving their welfare and living standards. As statistics show, for example, NAFTA has led to a significant increase in employment's opportunities for women in Mexico (Richards and Gelleny, 2007). Opponents, however, argue that a higher participation rate of women in the labour does force not necessarily improve the status of women in these economies. They suggests that globalization prevents women from "earning an independent wage, challenging management regarding wages and working conditions, attaining greater education levels, and/or achieving a more equitable distribution of socio-political rights"

(Richards and Gelleny, 2007). For example, in Chile, a country where economic performance has remarkably improved and poverty has significantly declined after economic reforms in the early 1990s, the gender gap continues to be relatively high (Richards and Gelleny, 2007). Indeed, in the wave of globalization, gender inequalities have shown diverse trends in different regions of the world. But, the question is whether globalization can be blamed for increased gender inequalities in less-developed and developing countries.

5.1. Review of literature

5.1.1. Discussion of Theories

The economic effects of international integration on gender inequality can be divided in two categories: 1) the effects on the labour market and 2) the effects on the role of government and its policies. These are both discussed here; however, our main focus will be on the impact of globalization on different dimensions of the labour market in the developing world.

International forces are believed to be a major factor in determining women's ability to work, the nature of their work, their wages and working conditions. As discussed before, trade theories anticipate that free trade raises the demand for and wages of unskilled labour in less-developed economies where unskilled labour is abundant. Therefore, after trade and capital flows liberalization, women should have more access to income-producing jobs since in these countries most unskilled labour is performed by women. This is evident in many developing countries. For example, in Malaysia, the Philippines, and South Korea, it is reported that the main employees of firms located in export processing zones (EPZs) are women (United Nations Development Program 1999). FDI has also emerged as an important source of job creation for women in developing economies. In Bangladesh, for example, investment of MNCs, especially in the

textile and clothing sector, has led to a significant increase in women's level of employment (Richards and Gelleny, 2007). Although growing feminization of the labour force does not necessarily mean a higher quality of life for women, it will eventually raise women's autonomy and independence in the household (Sassen 1996). This increased autonomy and independence will in fact improve women's status in social, economic and political spheres in the long-run (Gray et al., 2006).

However, critics argue that in the wave of globalization, due to job competition women in developing countries have become more vulnerable, and their working conditions do not allow them to strengthen their position. (Bergeron 2001; Acker 2004) It is argued that if domestic firms fail due to international competition, or FDI leaves the country, women are the first who will bear the cost of employment losses (Moghadam 1993; Cheng 1999). Moreover, working in low-paying jobs offered by MNCs and export industries prevents women from acquiring a greater level of education and skill (Seguino, 2006). Therefore, from this point of view, in the era of globalization, "women's ability to earn an independent livelihood is reduced, and instead of experiencing increased status and opportunities, their lives remain tied to the success of male family members" (Richards and Gelleny, 2007).

There are also different views towards the effects of globalization on the gender wage gap in less-advantaged economies. In some studies that cover both developing and developed economies, a negative effect of export-orientation on female relative wages has been found (Gupta, 2002; Oostendorp, 2004). As Seguino (2006) argue, "[in East Asian 'tigers'], despite rapid growth in exports that relied on female labour, gender wage gaps remain persistently large, and have worsened in some cases." In contrast, in some African nations, such as Uganda, in Non-Traditional Agricultural Export (NTAE) production where women have control or access

over land, free trade shows a narrowing effect on the gender wage inequality (Seguino, 2006). There is also strong evidence that in many developing countries, such as South Korea, Singapore and Malaysia, women employed by MNCs are earning higher incomes relative to female employees at domestic firms (Richard and Gelleny, 2007). Also, it is worth noting that the service sector is becoming a leading sector in attracting FDI inflows to many developing countries, such as China, India, and Bangladesh. This is in fact beneficial for women in these countries since the service sector is an important source of relatively well-paid and secure job opportunities for women (Joekes, 1995).

In addition, there is a widely held perception that increasing international integration promotes more supportive attitudes toward gender equality in the labour force and leads to the implementation of policies that allow women to have equal rights and working conditions. For instance, MNCs from industrialized economies, by practicing and promoting labour force regulations and policies that they practice at home, tend to reduce discrimination against women and improve their working conditions in less-developed economies. In India, for example, the discriminatory laws could not prevent MNCs from hiring women who were often excluded from the labour force (Richard and Gelleny, 2007). As Gray et al. (2006), state, “Economic changes associated with globalization may also provide the seeds for cultural transformations that improve the condition of women.” Indeed, by introducing new technologies and raising the minimum educational requirements of the labour force, MNCs and export industries can play a major role in the expansion of female education in less-developed economies. For example, in Bangladesh since the economic reforms in the early 1990s, the literacy gap between men and women has been significantly reduced (Kabeer and Mahmud, 2004).

Another debate surrounding the impact of globalization on women’s status is the shifting role of

states in the provision of a social safety net and their expenditure on health and education. Critics note that market liberalization policies, followed by privatization, free trade and capital account liberalization, have cut public sector jobs which are mostly held by women (Seguino, 2006). Moreover, reduction in the government's revenue through eliminating tariffs cuts social programs provided by the government. As Pearson (2003) argues, a reduction in social programs is more costly to women and very often reduces their access to health and education. Although the reduction in tariffs can reduce government revenues, additional taxes paid by MNCs on the other hand can offset this effect (David Dollar, 2003). Therefore, it is not clear whether the liberalization of trade and capital flows will lead to a reduction or an increase in governments' revenues and public expenditures.

5.1.2. Empirical studies

To investigate the impact of increased international integration on gender inequality, researchers have used different indicators that measure women's condition in health, education, and the labour market. For instance, women's level of life expectancy, literacy, their participation in the economic and political institutions, and their relative wages have been used as measures for women's welfare and status in majority of studies.

In recent research, Richards and Gelleny (2007) examine the link between women's status and economic integrations, using a panel data of 130 countries for the years 1982-2003. In this study, the authors use five different variables to measure women's status and four different measures for globalization. For instance, to measure women's improvement in longevity, knowledge, and decent standard of living they use the Gender-Related Development Index (GDI), which is a variant of the well-known Human Development Index (HDI). They also use a similar index, the

Gender Empowerment Measure (GEM) that measures women's empowerment in economic and political participation, decision making, and access over economic resources. More indicators that measure the government respect for women's social, political, and economic rights, have been also used in this study. Furthermore, to measure globalization, they use the following four different indicators: FDI, portfolio investment, trade openness and structural policy implementation. The results from their analyses show that women's status is correlated with a country's degree of openness to trade and capital flows. Although the relationship between women's status and globalization differs by type of the dependent and independent variables, in majority of cases, globalization is associated with improved women status.

In another empirical work, Gray et al. (2006) also find that international trade and FDI tend to improve conditions for women. In an analysis of 180 countries for the years 1975-2000, they investigate the impact of globalization on women's level of life expectancy, literacy and participation in economy and parliamentary office. Based on their results, women's life expectancy at birth is longer in countries where trade measures a higher percent of GDP than in countries where the trade ratio is lower. Female literacy rate is also higher in countries that are more open to FDI flows, but it appears to be lower in countries with a higher degree of trade openness. Finally, trade and FDI show no significant impact on female participation in the labour force, but they are positively correlated with percentage share of women serving in national parliaments.

Oostendorp (2004) provides a cross-country analysis of the effects of trade and FDI inflows on the gender wage gap using the rarely-used ILO October Inquiry. As the results of this study suggest, GDP per capita, in general, narrows the gender wage gap, while the effect of trade and FDI inflows on wage gap differs with the type of occupations in different countries. Trade and

FDI have a significant and narrowing impact on gender wage gap for low-skill jobs, both in poorer and richer countries, and for high-skill jobs in richer countries. However, trade has no impact, and FDI has a widening impact on gender wage gap for high-skill occupations in poorer countries.

In a case-study of Pakistan, Ahmed and Kalim (2006) study the impact of trade liberalization and gender inequalities in education, health and the labour market. Using data from 1973 to 2005, they show that trade liberalization has a significant impact on narrowing overall gender gap specifically in the labour market. In another case-study analysis, Camps-Cura (2009), studies the impact of market openness on the human capital formation and the gender wage inequality in urban Latin America and East Asia. The selected countries are China, South Korea and Singapore in Asia, and Argentina, Uruguay and Brazil in Latin America. This study also finds that market openness, measured by trade, tend to narrow the gender gap in both education and earnings.

Contrary to the common fear, most recent empirical studies fail to find any adverse impact of globalization on the status of women. In fact, in majority of cases, trade and capital flows tend to improve women conditions and narrow gender inequalities. In this study, using two different measures of gender inequality, we will also study the link between FDI, a measure of financial globalization, and status of women. However, for the purpose of our study, the focus will be only on less-developed and developing countries.

5.2.Statistic and Data

To investigate the impacts of FDI on women's status in developing countries, we use two indicators that measure gender inequalities. The first is the Gender-Related Development Index

(GDI), which is a complex index measuring women's improvement in the following dimensions:

- Life expectancy at birth,
- Education, which is the adult literacy rate and the combined primary to tertiary gross enrolment ratio, and
- Decent standard of living, measured by gross domestic product per capita in purchasing power parity U.S dollars.

The GDI ranges from zero to one. A higher score shows higher achievement levels of both women and men, or a lower gap in levels of their achievement. For example, in our sample countries, in 2006, Hong Kong had the highest score, 0.935, and Niger had the lowest score, 0.26. Another indicator of gender inequality in our analyses is the Gender Empowerment Measure (GEM). The GEM measures inequalities between men's and women's opportunities in the following dimensions:

- Economic participation and decision-making power, “measured as female shares of professional/technical positions and female shares of positions as legislators, senior officials, and managers” (Richards and Gelleny , 2007)
- Political participation and decision making, measured as the female share of parliamentary seats, and
- Power over economic resources, measured as female estimated earned income as compared to that of males.

Like the GDI, The GEM ranges from zero to one, with the higher score being more desirable than the lower score. For example, in 2006, Singapore had the highest score, 0.782, and Yemen had the lowest score, 0.136 in our selected countries. The summary statistics for our key

variables are presented in table 10. The two measures of gender inequalities, GDI and GEM, are both available in the annual United Nations Human Development Report (UNHDR). These variables are suitable to use in measurement of women's status since they cover the physical, social, economic, and political dimensions of human development (Richards and Gelleny, 2007).

Table 10. Descriptive variable information

	<i>N</i>	<i>Minimum</i>	<i>Maximum</i>	<i>Mean</i>	<i>Std. Dev.</i>
<i>FDI</i>	851	-10.1	46.4	3.8	4.8
<i>GDI</i>	845	0.26	0.935	0.62	0.16
<i>GEM</i>	341	0.12	0.782	0.46	0.11
<i>ln GDP</i>	845	6.1	10.3	8.02	0.95

Like in our analyses in the previous sections, the stock of foreign direct investments relative to GDP is used as a measure of financial globalization. We also include logged GDP per capita to account for a country's level of economic development. As Richards and Gelleny, (2007) point out, "Economic development can provide citizens with improved income prospects, thereby possibly empowering women's ability to gain autonomy and power within their family environment." These data are taken from the World development Indicator Index.

To study the link between GDI and FDI, we use a pooled cross-sectional time-series dataset composed of 95 developing countries for the years 1996-2006. However, in the case of GEM, because of missing data the dataset is reduced to 75 countries. Finally, as our estimation technique, we use the generalized estimation equation (GEE) method with robust standard errors.

As Richards and Gelleny (2007) recommend, the GEE is a proper method of estimation to use since the GDI and the GEM are interval-level pooled cross-sectional time-series data, with more spatial units than temporal unites. According to them, this approach, which extends generalized linear models to a regression setting with correlated observations within subjects, is a very attractive method to use with panel data.

Table 11 provides the results from the GEE estimation of the effects of globalization on the status of women. As seen in Column 1, the coefficient estimate of FDI is positively correlated with the GDI, the levels of women's improvements in longevity, knowledge, and decent standard of living. One percent increase in the stock of FDI as a percentage of GDP is associated with a 0.001 increase in GDI in this sample data. The magnitude of the coefficient estimate of FDI seems to be very small, but we should remember that the GDI scores range from zero to one.

Results from estimating the effects of FDI on the GEM also show that: a more open a country is to FDI, a higher is its score of GEM. The coefficient estimate of FDI is also positively correlated with the GEM and is significant. Based on this analysis, one percentage point increase in the stock of FDI as a percentage of GDP is associated with a 0.003 increase in the score of GEM. The coefficient estimate of FDI in both analyses is significant at 5% level. In addition, logged GDP per capita has a positive and significant impact on the two measures of gender inequalities. One percent growth of GDP is associated with a 0.13 increase in GDI and a 0.08 increase in GEM. Therefore, the higher is the level of development; the better will be the social, economic, and political status of women. Therefore, based on our findings, we reject the hypothesis that financial globalization has widen gender gaps in less-advantaged economies. In fact, our results demonstrate that women's status in developing countries is positively and reliably associated

with a county's openness to capital flows.

Table 11: GEE results: Foreign Direct Investment and two indicators of gender inequality

<i>Dependent variable:</i>	<i>GDI</i>	<i>GEM</i>
<i>Independent Variable:</i>		
<i>FDI</i>	0.001** (.0004)	0.003** (0.001)
<i>ln GDP</i>	0.136** (0.009)	0.085** (0.017)
<i>No. Of Countries</i>	95	75
<i>Probability > χ^2</i>	0.00	0.00

Note:** $p \leq .05$,

6. Conclusion

Globalization, the increasing integration of domestic economies into the global economy, is controversial, but it is an inevitable feature of today's world. From supporters' point of view, economic integration is a major force for growth and poverty reduction in poorer countries, and it can be an important mechanism for bringing about the convergence of their living standards to those of the richer countries. However, there is also a widely held perception that globalization poses challenges for less-developed and developing countries, especially for the most vulnerable socio-economic groups within these countries. Specifically, since the late 1990s, numerous global protests have been directed at international institutions such as the World Trade Organization (WTO), which promotes

trade and capital flow liberalization. As Bhagwati (2008) states,

[the protesters] were not interested in whether trade and globalization more generally were good for economic prosperity. They were worried instead about the effects on social agendas and believed that these were malign, not benign. Thus, for the poor countries, many believed that globalization would increase poverty, increase the use of child labour, and harm their indigenous populations.¹¹

Given the controversy over the impact globalization, it is important to provide a clear understanding of how different dimensions of the globalization process affect individuals, especially the ones who have no voice in the implementation of this process.

By focusing on income inequality, poverty, child labour, and gender inequality, in this study we address the question of whether FDI, a measure of financial integration, is harmful to those who are more vulnerable in the developing world. In the first section, we implemented two regression estimations to explore the relationship between FDI and the changing pattern of income inequality and poverty in 60 low-income and middle-income countries. Our findings from both regressions allow us to reject the hypothesis that financial globalization, measured by FDI, has an adverse impact on poverty and income inequality. Indeed, based on our results, FDI tends to reduce poverty and to narrow income inequality in our data. In the second section, we focused on children, who are the most vulnerable segment of society. Here, we examined the impact of FDI on the incidence of child labour and the school-attendance rate in 90 developing countries. Based on these results, we also reject the hypothesis that financial globalization has the effect of increasing the incidence of child labour. As a matter of fact, FDI can be a factor in reducing child

¹¹ <http://www.columbia.edu/~jb38/>

labour and extending their education. Finally, in our last analyses, we test the implications of financial globalization on the status of women, who are believed to be disadvantaged, to some extent in every country, and especially in the developing world. Using the GDI and the GEM to measure gender inequality, we find that our measure of globalization (FDI) is associated with improved conditions for women in low-income and middle-income countries. However, it is important to note that these results do not imply that globalization benefits children, women, and men in all regions of these countries. There are many regions where international trade and investment have eroded traditional local economies and diminished the standard of living. Yet, closing to international trade and capital flow is by no means a feasible solution to these shortcomings. Scholars generally agree that to fairly distribute the benefits of free trade and investment, effective policies that facilitate labour mobility, provide aid, and promote health and education should be in place along with liberalization policies. Indeed, in the era of globalization, national economic and political institutions play a key role in redirecting the benefits of economic integration toward improving the lives of citizens. To fully understand the mechanisms behind the relationships between international integration and social well-being in less-advantaged economies, further research needs to be directed at in-depth studies of particular cases or countries.

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