The relationship between foreign direct investment and economic growth in Mexico, 1971-1995

Leslie Adames*

Abstract

The role of foreign direct investment in economic growth has been a major debatable issue in the economic development literature during the past decades. Controversies concerning the appropriateness of foreign direct investment as a mechanism of economic growth exist between the neoclassical and dependency economists. This paper presents a discussion of the major controversies existing on the effect of foreign direct investment in the economic growth of developing economies. This discussion is followed by an econometric analysis of the relationship between foreign direct investment and economic growth for Mexico during the 1971-1995 period. A positive relationship between foreign direct investment inflows and real gross domestic product and consumption levels of electricity per capita as proxies for economic growth was found, thus establishing a long-run nexus between foreign direct investment and economic growth.

Introduction

The role of foreign direct investment (FDI) in economic growth is one of the major debatable issues in developing economics. Empirical evidence on the short-run and long-run effects of FDI in economic growth raised contradicting evidence when analyzed for different less developed (LDCs) and developing countries. Divergent economic explanations by dependency and neoclassical economists raise questions on the appropriateness of FDI to promote economic growth in these countries. It is the purpose of this paper to present a discussion of some of the most relevant literature related to the effect of FDI in the process of economic growth on developing countries. This is followed by an econometric analysis of the long-run relationship between FDI and economic growth for Mexico during the 1971-1995 period to determine if increases in Mexico economic growth was positively related with the level of foreign investment undertaken in this country.

Section II presents a literature review on the main theoretical development and controversies related to the relationship between FDI and economic growth. In section III we present a brief explanation of the methodological procedure utilized and a specification of the economic model estimated for the Mexican case. Section IV presents a discussion of the empirical results of the model designed in the previous section. Finally, Section V provides some concluding remarks on the relevancy of these results for the existing controversy on FDI and economic growth.

^{*}Associate Professor in the School of Management at the Polytechnic University of Puerto Rico.

I am grateful to Professor Susan Randolph from the Economics Department at the University of Connecticut for her initial comments and recommendations. I am also grateful to Professor Juan Lara Fontánez and Professor Francisco A. Catalá from the Economic Department at the University of Puerto Rico for their constructive comments and review of this work.

Literature Review

The conventional neoclassical development notion indicates that FDI is beneficial for the host-country¹ because it brings with it new technology, capital and marketing skills increasing the productive capabilities of the economy, promoting competition and improving the distribution of income in the economy by bidding up wages and promoting efficiency. (Moran, 1985) This positive effect is the major and strongest justification for FDI and multinational corporations (MNCs) presence in developing countries by neoclassical economists.

From the neoclassical perspective, the inflow of FDI exert significant contribution in developing countries because of its effect in the promotion of competitive markets and increasing income distribution resulting from its continuos penetration in LDCs.

If the inflow of FDI to LDCs is beneficial, then what factors motivates MNCs to invest in developing countries? In other words, given incomplete market structure and political and economic uncertainties in developing countries, what motivates developed countries to invest in LDCs?

In an environment of uncertainty MNCs – as a representation of the level of FDI in host-countries – do not have incentives to invest in developing countries unless the expected gains from their initial investment is higher than the risk of investing in them. After all, MNCs are economic agents that want to maximize profit. In this context, preferential treatment to them, for example, tax exemption to particular industries, compensates the uncertainty of investing in these markets.

In Moran's (1985) words,

"The dynamics of foreign direct investment have increasingly been explained as corporate strategies to defend barriers to entry into an industry and extend the ability of the parent company to extract oligopoly rents." (Moran, P. 4)

MNCs invest in LDCs as long as the possibility of obtaining market power and the potential of extracting revenues from host-country is greater than the expected risk. In an environment of market imperfections as those characterizing LDCs economies MNCs invest only if the expected future flow of profits becomes significantly greater than the future potential losses of investing in a highly uncertain environment. This requires the promotion by local governments of incentive policies attracting FDI in a limited competitive environment where few MNC are granted preferential treatment to

_

¹ By host-country we refers to countries that received FDI by developed countries. In the literature different type of categorization for this relationship exist, mainly within the dependency literature. Some authors refer to the north-south countries relationship, core-periphery countries, export-import oriented countries, etc. For consistency we refer to host-countries unless the distinction becomes necessary for consistency of the arguments.

extract rents at the expense of other companies. Consequently, the host-country productive capabilities are reduced at the expense of the rent-seeking behavior of MNCs.

The loss of competitiveness in LDCs economies resulting from the inflow of FDI and the outflow of rents generated domestically by MNCs is not the only negative aspect of FDI in developing economies. The presence of MNCs in LDCs is also associated with an extraction of internal financial funds required to finance indigenous capital critical in the development of the internal productive capabilities of these countries. Moreover, this MNCs brings highly capital-intensive technology difficulting the adaptability of them to less developed markets. MNCs exert pressure in LDCs markets for the establishment of protective measures inhibiting competitors from bringing labor-intensive technology that could force them to develop new least-costly technology appropriate to LDCs markets. The absence of appropriate technology adaptable to the internal productive structure of LDCs countries creates distortions in the productive activities; labor markets, and consequently, increases the inequality on the distribution of income.

Chase-Dunn (1975) describes this process as one that creates dependency and inequality in LDCs at the expense of MNCs gains. The penetration of MNCs in specific productive sectors of the domestic economy translates into an absence of interdependence and differentiation among the different productive sectors of the economy reducing the diversification of the productive capabilities of the economy. The consequence of this process is the creation of a productive structure specializing in the export of raw material utilized in developed countries to manufacture intermediate and final products that later are sold back at a higher price in developing countries.

These flaws in the neoclassical paradigm are questioned by Moran (1985). He argue that the relationship between MNCs and LDCs rather than being one of exclusive concentration of market power by developed countries is more like a bilateral monopoly where mutual beneficial outcomes to both developed and LDCs are produced.

In a situation of bilateral monopoly foreign investor control the capital, technology, marketing and managerial skills required to launch the investment project successfully; but at the same time the host-countries controls the access of MNCs to domestic markets and the conditions of MNCs operations after the capital investment is established. In other words, developing countries have bargaining power over the MNCs activities in domestic markets by defining terms of initial investment and scope of operations of these corporations once established in LDCs economies.

The logical reasoning behind this defense is that governments in LDCs promote FDI by reducing the level of risk and uncertainty associated with market imperfections. The presence of FDI presumably expands their countries productive capabilities. In this process, the learning curve of LDCs improves, increasing their bargaining power and managerial skills overtime. The host-country as a result of this increasing bargaining power becomes capable of exerting pressure in MNCs to produce more value added

domestically and promote expansion of linkages into indigenous economies and/or making MNCs to export more finished and components goods from their markets. These policies promote economic growth in LDCs by promoting significant changes in the degree of control and distribution of benefits between MNCs and developing countries. Moran's indicates that,

"Progress for less developed economies can come through active engagement with, not detachment from the international economy and the multinational corporate community." (Moran, P. 12)

This implies the existence of a mutual beneficial economic relationship between MNCs and host-countries where the development of internal productive capabilities and linkages with domestic markets leads to an increase in economic growth.

If the beneficial outcome of FDI is significant in terms of the contribution to the development of productive capabilities and economic growth then the question raise is why the neoclassical notion of development has been so strongly criticized in the past decades?

Studies in the past (Chase-Dunn, 1975; Bornschire, 1978) documented a negative relationship between FDI and economic growth. They questioned the validity of the neoclassical theoretical approach to the analysis of the effect of FDI in economic growth.

Neoclassical economist indicates that the lack of economic growth is due to the nature of their production, the inability of domestic firms to promote exports, and technological constraints that inhibit their capacity to obtain the necessary technology required to increase their productivity, thus reducing economic growth. Therefore, FDI becomes a necessary ingredient in developing countries to promote growth strategies capable of maximizing the utilization of existing productive capabilities and the opportunities of creating new ones. This would translate in the long-run into economic growth.

Dependency economists argue that the positive relationship between economic growth and FDI is fictional rather than a real explanation of the effect of these variables in LDCs economic growth.

Chase-Dunn (1975) indicates that the reduction in economic growth and increasing income inequality are the effect of an increasing dependency by LDCs of FDI. This dependency translates into an increasing level of dependency on foreign credit as the level of savings decrease overtime. Contrary to this view Schelling (1958) indicates,

"Unrestricted international flow of capital to areas where it will bring the highest return will result in the maximization of growth for the system as a whole and presumably also for the peripheral areas to which the capital flows. The benefits of foreign investment will spread due to income created by new employment and the "trickle-down" effect caused by increased demand for land, labor and materials."

The theoretical framework in which the dependency economists base their arguments is as follows: the promotion of FDI by developed countries allowed the extraction of productive resources for their own development at the expense of LDCs economic development. The penetration of MNCs into LDCs retards the process of development because of the control they have on the mode of production, knowledge and technology. The control of the technological knowledge do not allowed the spread of it into indigenous industries retarding the development of productive capabilities and affecting productivity across the different economic sectors. Moreover, the creation of an internal elite with converging interest with MNCs inhibits LDCs governments to pursue economic policies that promote the necessary structural changes required for economic growth. This process lead to an unequal distribution of personal and sectoral income and inequalities in the distribution of land due to monopolistic power of MNC that results in economic stagnation.

Bornschier (1978) conducted a cross-national study to determine the effect of FDI and aid on economic growth and inequality. According to his definition of development

"A national economy is considered developed if it has high levels of internal differentiation, integration, and energy consumption, employ scientific technology in production, and has a high level of labor productivity in all sectors." (Bornschier, P. 654)

This definition is critical for the discussion of the effect of FDI on economic growth. From the dependency perspectives, FDI reduces the host-country productive capabilities and inhibit the flow of appropriate technology consistent with internal markets. Furthermore, the utilization of capital-intensive technology leads to the flow of FDI into industries capable of adapting these technologies more adequately. As a consequence, industries with labor-intensive technology end up lagging relative to more capital intensive industries, creating differences in productivity and income within the different sectors of the domestic economy and retarding economic growth. This process also creates unlinked economic activities, reducing the possibility of creating an organized domestic market. The resulting outcome is an economic structure concentrated on providing resources to international markets (Chase-Dunn, 1975).

A variation of the dependency arguments is the decapitalization thesis. This thesis as discussed by Bornschire (1980) state that the FDI – in this case represented by MNCs penetration – promotes a significant loss of capital accumulation necessary for economic growth, thus reducing the capacity of this economies to developed the technology and innovations necessary to improve their productive capabilities. The reduction in funds reduces the availability of LDCs to invest domestically.

Bornschire and Chase-Dunn (1985) observed that in the short-run the inflow of technology promotes an increase in the level of productivity and output growth promoting a significant increase in economic growth. When they analyzed the accumulation of FDI over the long-run this relationship became negative.² Furthermore, the increase in inequality by sector, between individuals and of the distribution of land increases with an increase in FDI.

Various factors play a significant role in explaining this relationship. First, in the short-run, increases in the level of FDI expand the productive capabilities of the host-country increasing the level of economic growth. This increase in economic growth results from an increase in investment growth through MNC-investment. (Bornschire, 1980) If the level of MNC-investment increases over the short-run increasing the current inflow of investment and promoting an increase in investment growth then it is reasonable to expect an increase in economic growth. From this short-run relationship no evident contradiction exist between the level of FDI and economic growth from the dependency and neoclassical perspectives. The complexity of these theoretical approaches becomes palpable when we extend the analysis to explain the long-run effect of FDI in economic growth.

Dependency economists indicates that the long-run reduction of economic growth –resulting from the increasing extraction of surplus from LDCs relative to the contribution of productive resources from MNCs – creates a dependency relationship between LDCs and developed countries. The increasing outflow of resources from the domestic economy to developed countries through the remittance of MNCs earnings and overpricing of intermediate goods reduces domestic savings and constrain LDCs from modernizing their economy. Moreover, an increasing concentration of MNCs on particular productive sectors of the economy reduces the capacity of LDCs of promoting other sectors with the potential to contribute to long-term economic growth.

Bornschire (1980) indicates,

"Decapitalization, we conclude, can be demonstrated with regard to the influence of MNC-penetration on investment growth and with regard to comparatively low new investment of MNCs if penetration is high." (Bornschire, P.205)

The increasing level of investment and concentration of MNCs in particular sectors of the economy have numerous negative effects in developing economies. First, the increasing level of foreign investment and the continuous remittance of indigenous funds to developed countries destroy the availability of domestic capital reducing the opportunities for domestic investment. This decapitalization process translates into a

-

² Flow of FDI refers to the current account inflows of foreign capital for some period. The stock of FDI represents the total accumulated value of foreign-owned capital in a country. This distinction is significant because the negative relationship between FDI and economic growth is observed only in the long-run when the stock of FDI is analyzed.

higher dependency of FDI to substitute the lack of domestic investment due to the loss of domestic capital. Secondly, the investment of MNCs is related to the opportunities available by these corporations of developing market in the domestic economies. As the level of MNCs concentration increases, the capacity of developing domestic markets decreases and the level of investment growth is reduced. Assuming there is a positive relationship between the level of investment growth and economic growth, then a reduction of MNC-investment reduces economic growth. This is critical because a reduction in domestic investment and in MNC-investment due to a decrease in domestic savings and an increasing penetration of MNC-penetration, respectively, may limit, if not, eliminate the potential for economic growth. Finally, the fact that there is a saturation of the domestic market and a stagnated economy does not imply that economic growth become zero. What is possible to indicate is that economic growth is reduced overtime as MNC-penetration reduces investment alternatives for foreign investment. This reduction in investment resulting from MNCs-penetration is compensated by an increase in MNC-investment.

During the 1990s there has been a resurgence of arguments on the neoclassical economic literature defending the benefits of FDI in developing countries. This literature presents FDI as the mechanism through which new technology lead to economic growth in the long run.

Hein (1992) argue that dependency theory may hold in particular regions and countries but not in all of them. The fact that FDI promotes dependency in LDCs is questioned on the grounds of a comparison between Latin American and East Asian development strategies and their economic growth experienced during the past decades. According to Hein, dependency relationships are subject to particular economic, social and political circumstances characteristic of the particular developing country. He questioned whether the policies promoted by domestic countries exerted a significant role in the decision of MNCs-investment or flow of capital to LDCs. Second, Hein tried to determine whether the level of FDI creates a dependence dynamic as the dependency theorist indicated. Finally, he analyzed the relationship of FDI in economic growth to determine if previous findings (Bornschire and Chase-Dunn, 1985; Bornschire, 1980; Bornschire, Chase-Dunn and Robinson, 1978; Chase-Dunn, 1975) are valid. He found that the nature of the economic policy undertaken by domestic governments exerted a significant influence on MNCs investment. Therefore, it was observed that in those countries where the government reduced its scope of policy intervention the level of economic growth increased with increasing flow of FDI.

Latin American countries, for instance, adopted an inward-oriented growth strategy – in this particular case an import substitution strategy – to promote growth. The protectionist policies promoted by most of Latin American countries – such as import tariffs – translated into higher prices and saturation of markets for industrial and consumer goods, stagnating their economies. On the other hand, East Asian countries promoted a modernization strategy with policies directed toward the promotion of FDI

through export-led industries. This strategy attracted continuous capital inflows from developed countries through different incentive mechanism – such as tax exemption and investment guarantee treaties – promoting economic growth.³

Despite this evidence, Hein (1992) does not exclude the possibility of a combination of import-export growth oriented strategy. He concludes that political conditions, regional characteristics, demographics and political factors rather than economic dependency determined the level of economic growth and the level of FDI. For example, his study suggested that FDI was negatively affected by political instability and population growth. Even though FDI affects positively economic growth, the empirical evidence from his study suggested that official policies undertaken by the government, the level of per capita income, and the country development position relative to other developing countries played a fundamental role in economic growth.

In a recent article, Mello (1997) discussed the importance of technological and productivity spillover in economic growth. The level of FDI allows developing countries to acquire the necessary technology to increase productivity in their productive sector and foster economic growth. The level of economic growth promoted by technological transference from FDI depends on the initial endowments of resources available in the developing countries. Furthermore, the contribution of FDI becomes significant in the growth process as it becomes complementary with the level of domestic investment financed by these countries.

Two important issues are considered with respect to the contribution of FDI in LDCs. First, if the nature of the technology promoted by developed countries is complementary to domestic investment, then FDI may be stimulated as a mean of capital accumulation and as a mechanism to diversify the productive base of developing economies. This process is characteristic of developing countries with less advance technologies. Eventually, the accumulation of technology and the increase in the productive base of this economy lead to economic growth. On the other hand, for countries with a higher level of development – but that still remain LDCs – the degree of substitutability between old and new technology promote absorption of more advance technology and economic growth. This process occurs as this countries substitute obsolete technology for modern technology increasing the efficiency level in the production process. (Mello, 1997)

The significance of this finding lie on the fact that technological changes and the innovations produced by FDI leads to increases in economic growth in the long-run. In this sense, Mello's (1997) findings present an alternative explanation for the positive

_

³ The modernization theory states that all countries go through similar phases of economic growth culminating in an industrialized society. Capitalism development is a beneficial economic process propelling industrialization and transformation of LDCs into modern societies. For an elaborated discussion refer to Walt W. Rostow, **The Stages of Economic Growth** (Cambridge: Cambridge University Press, 1965).

effect of FDI in economic growth. This evidence reply to the notion that in the long-run the effect of the stock of capital in economic growth is negative by contradicting previous analysis – for example, the studies realized by Bornshire (1974, 1980, 1985) and Bornschire and Chase-Dunn (1985).

The previous literature review examined the debate between dependency and neoclassical economists on the relationship between FDI and economic growth. During the past decades dependency economist argued that FDI became the instrument by which developed countries exploited the productive resources of LDCs for their own development process. This view suggest that FDI promote economic growth in the short-run but in the long-run this effect is eliminated as the level of resources extracted from LDCs becomes greater than the level of domestic investment.

The general notion of dependency through FDI is addressed later on by economist arguing that economic growth through dependency was attainable. Evidence from East Asian countries sustains this argument considering a combination of protective measure and FDI as a feasible strategy to promote economic growth.

Finally, technological changes and innovations in LDCs are possible through the promotion of FDI. FDI rather than being counterproductive for the development process showed to be significant whenever the degree of substitutability allowed for the absorption of new technology increasing the productive efficiency of LDCs economies.

Empirical Analysis

The objective of this section is to present an analysis of the relationship between FDI and economic growth for Mexico for the 1971-1995 period. In this analysis we depart from two assumptions. First, the amount of FDI inflow to Mexico during the period under analysis played a fundamental role in the process of economic growth. Evidence in favor of this assumption represent evidence in favor of the neoclassical conception on the importance of FDI in fostering economic growth.

Finally, we assume that an increase in the level of savings as a result of increases in the level of income promoted further economic growth. Therefore, the inflow of foreign investment set in motion a process of economic growth leading to an increase in savings. This increase in savings foster economic growth through the creation of internal funds available for reinvestment. Evidence in favor of this supposition represent further evidence in favor of the neoclassical notion of the role of FDI in economic growth and raise question on the validity of the dependency school argument on the negative consequence of foreign investment due to the decapitalization process created by this development dynamic.

The variables selected for this analysis are: (1) real gross domestic product, (2) gross domestic savings, (3) share of foreign direct investment inflow in GDP, (4)

electricity consumption per capita, and (4) percentage of metal exported. The data corresponding to these variables were obtained from the *World Development Indicators* published by the World Bank.

The electricity consumption and real GDP are the dependent variables of the model and are proxies for the level of economic growth.

The variable related to the percentage of metal exported in the manufacturing sector is selected as a control variable on the assumption that an increase in FDI is related to that machinery required to exploit primary products. Therefore, we include this variable on the premise that FDI is mainly directed toward the production of the primary sector goods. Therefore, we expect a positive and significant value for the coefficient of this control variable.

The independent variables of the model relate the level of savings and foreign investment with the level of economic growth. An increase in the level of FDI promotes an increment in the level of economic growth. In this case, we expect a positive and significant coefficient for this variable. The inclusion of this variable stand from the presumption that FDI is directed mainly toward those sectors concentrated in the production of primary products setting the basis for third world multinational corporations and a process of economic growth.

The inclusion of the level of gross savings in the model stands from two reasons. First, it is belief that an increase in savings in developing countries via the dynamics created by FDI allows the country to have accessibility of funds to reinvest in productive activities leading to economic growth. If this is the case, then we expect a positive and significant sign for this variable, sustaining the neoclassical argument. However, those against the proposition of the neoclassical economist argue that an increasing inflow of FDI into the developing country lead to a reduction in savings as people consume more and pay more for intermediate goods. In this case, it is possible to argue that the development process via FDI is counterproductive due to the decapitalization process that it creates. Therefore, if this case hold for the Mexican case we expect a negative sign and significant coefficient value for the level of gross savings sustaining in general terms the decapitalization argument.

The economic models specify for this analysis consist in

$$GDPC = b_0 + b_1METEXP + b_2GDS + b_3FDIGDP + u$$

$$ECKHWC = b_0 + b_1METEXP + b_2GDS + b_3FDIGDP + u$$
(1)

where: GDPC is real gross domestic product

TEXP is the percentage of metal exported

S is gross domestic savings

IGDP is the share of net FDI inflows in GDP

Both the dependent and independent variables are expressed in logarithmic form to obtain the coefficient of elasticity for the independent variables. We estimate equation (1) and (2) using the multiple regression analysis techniques. We correct for autocorrelated error by using the First-Order Autorregresive model (AR (1)).

Results

The estimated equations after correcting for autocorrelation are

(2)
$$GDPC = 10.4458 - 0.0463METEXP + 0.0251FDIGDP + 0.1544GDS$$

$$(0.1899) \quad (0.0144) \quad (0.0069) \quad (0.0163)$$

$$ECKHWC = 7.1650 - 0.0272METEXP + 0.0171FDIGDP + 0.0212GDS$$

$$(0.2507) \quad (0.0176) \quad (0.0084) \quad (0.0198)$$

We summarize the statistical results from equation (2) as follow

Table 1
Regression Results for Equation (2)

Variable	Coefficient	T-Statistic
Constant	10.4457	54.9849
METEXP	-0.0463	3.1973
FDIGDP	0.0251	3.6306
GDS	0.1544	9.5004
R-SQUARE	0.9968	

The economic model represented by equation (2) in general terms appeared to sustain the neoclassical conception on the positive role played by FDI in economic growth. The coefficient of determination for this model was 0.9968 implying that the explanatory variables included in the model explained approximately 99 percent of the variation in the dependent variable. In other words, the inclusion in the model of the share of FDI in GDP, gross domestic savings, and the share of metal in export explained a significant variation in the level of economic growth. When we analyzed each of the coefficients for the explanatory variables we observed statistical significance at the 5 percent significance level for each one.

The reported t-statistic for the share of metal production in export was 3.1973 in absolute value being significant at the 5 percent significance level. That the sign was

negative suggested the decreasing role of this primary sector as the process of economic growth tooks place. The coefficient of elasticity indicated that a 1 percent reduction in the share of metal production in export decreased economic growth. The t-statistic value for the share of FDI resulted 3.6306 being significant at the 5 percent significance level. The positive sign for this coefficient was as expected, indicating that a 1 percent increase in the share of FDI led to an increase of approximately 2.5 percent in economic growth. Finally, the calculated t-statistic value for the coefficient corresponding to gross domestic saving was 9.5004. In this case, the sign for the coefficient was as expected suggesting that a 1 percent increase in the level of domestic savings resulted in a 1.6 percent increase in economic growth.

The empirical evidence for equation (3) resulted less strong than the evidence obtained in equation (2). The results are summarized in table 2 as follows

Table 2
Regression Results for Equation (3)

Variable	Coefficient	T-Statistic
Constant	7.1649	28.5772
METEXP	-0.0272	1.5423
FDIGDP	0.0171	2.0377
GDS	0.0218	1.0971
R-SQUARE	0.9963	

From table 2 we observe that the explanatory variables included in the model explained approximately 99 percent of the variation in the dependent variable. In other words, the variables related with the production of metal as a share of export, gross savings, and FDI explained a significant portion of the variation in the level of economic growth as represented by the electricity consumption per capita. However, when we analyzed each of the coefficient independently it was observe that only the variable related with the share of FDI was statistically significant at the 5 percent significance level and obtained the expected sign. A 1 percent increase in the share of FDI promoted a 1.7 percent increase in electricity consumption per capita, thus alluding to an increase in economic production and economic growth. In the other cases, the variables did not resulted statistically significant despite the fact that the direction of the signs were as expected.

Conclusion

The previous analysis intended to study the relationship between FDI and economic growth for Mexico during the 1971-1995 period. On this ground we presented empirical evidence sustaining the validation of the neoclassical conception of the role played by FDI inflows in the promotion of economic growth. As proxies for economic growth we utilized real gross domestic product and the consumption level of electricity per capita. We observed a positive relationship in both cases when this variables were measure against the level of gross domestic savings and the level of FDI inflow, suggesting that an increase in FDI promoted higher economic activity and an increasing availability of domestic funds – through savings – that were possibly reinvested domestically. This result is significant because it derogated the decapitalization thesis as the major element leading to slowdown and eventual stagnation on the level of economic growth in less developed and developing countries.

It was also found a negative relationship between gross domestic product and the consumption of electricity per capita and the percentage of metal in export. This was consistent with the neoclassical notion that increases in economic growth lead to structural changes in the productive infrastructure reducing the importance of the primary sector relative to other more sophisticated productive sectors in the economy. The modernization of the productive infrastructure resulting from FDI inflows and domestic investment through the funds coming from domestic savings contribute to the modernization of the productive activities. In this context, it is possible to conclude that with increasing level of economic growth the productive activities of developing economies tend to diversify as the availability of new technology lead to the exploitation and creation of productive capabilities necessary for economic growth. This process is associated with a reduction in the scope of participation of the primary sector at the expense of the development of the secondary and tertiary economic sectors.

Despite this results this analysis suffers from several flaws. First, this analysis only analyzed the relationship between FDI and economic growth. It did not intended to determine the flow of causality between both variables. Whether the causal relationship runs from FDI into economic growth or vice-versa still need to be analyzed to present stronger evidence in favor of the neoclassical arguments. Another limitation of this study lie on the fact that the inclusion of the percentage of metal exported is not the only possible variable capable of exerting influence between foreign investment and growth. There are other variables having the same level of relevance in this relationship that requires control. That FDI brings technological advances to developing countries translating into economic growth requires further elaboration. It is believe that FDI brings new technology that promotes spillover effects into different productive sectors of the economy. Do these spillover effects materialized for the Mexican economy increasing sectoral productivity and creating further productive capabilities? Or does it retarded the development of Mexican indigenous industries with the appropriate technologies required to conduct their own economic activities?

Bibliography

- Amirahmadi, H. and W. Wu. (1994). **Foreign Direct Investment in Developing Countries**. *The Journal of Developing Areas* 28: 167-190.
- Bornschier, V. (1980). **Multinational corporations, economic policy and national development in the world system**. *International Social Science Journal* 32(1): 158-172.
- Bornschier, V. (1980) Multinational Corporations and Economic Growth: A Cross-National Test of the Decapitalization Thesis. *Journal of Development Economics* 7: 191-210.
- Bornschire, V. and C. Chase-Dunn. (1985). **Transnational Corporations and Underdevelopment**. New York: Praeger, Pp. 80-106.
- Bornschier, V.; Chase-Dunn, C. and R. Rubinson. (1978). Cross-National Evidence of the Effects of Foreign Investment and Aid on Economic Growth and Inequality: A Survey of Findings and a Reanalysis. *American Journal of Sociology* 84(3): 651-683.
- Chase-Dunn, C. (1975). **The Effects of International Economic Dependence on Development and Inequality: A Cross-National Study**. *American Sociological Review* 40: 720-738.
- De Mello, L.R. (1997). **Foreign Direct Investment in Developing Countries and Growth: A Selective Survey**. *The Journal of Development Studies* 34(1): 1-34.
- Hein, S. (1992). Trade Strategy and the Dependency Hypothesis: A comparison of Policy, Foreign Investment, and Economic Growth in Latin America and East Asia. Economic Development and Cultural Change Pp. 495-521.
- Krishna-Dutt, A. (1997). **The Pattern of Direct Foreign Investment and Economic Growth**. *World Development* 25(11): 1925-1936.
- Rostow, W.W. (1965) **The Stages of Economic Growth**. Cambridge: Cambridge University Press.
- Schelling, T.C. (1958) **International Economics**. Boston: Allyn and Bacon.