

FOREIGN DIRECT INVESTMENT IN VIETNAM AND ITS IMPACT ON ECONOMIC GROWTH

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ABSTRACT

While a large amount of existing literature discusses the relationship between Foreign Direct Investment (FDI) and economic growth, very few empirical studies have been carried out for Vietnam, one of the fastest growing economies in the world. This paper reviews the experience of Vietnam in attracting FDI and examines the relationship between economic growth and FDI, utilizing data on FDI inflows, GDP, Export and Money Supply of Vietnam during the last two decades. The results suggest that FDI is an important factor for the growth of the Vietnam's economy.

Keywords: Foreign Direct Investment, FDI, Vietnam, Economic Growth

1. INTRODUCTION

Prior to 1986, Vietnam witnessed tremendously tough challenges: the aftermath of war, social evils, the mass flow of refugees, the war at the southwest border with Cambodia, the dispute at the northern border with China, the isolation and embargo from the United States and Western countries, in addition to continual natural calamities. In 1986, the Vietnamese government launched the "Doi Moi" or all-round renovation process; the country started to shift from a centrally-planned economy to a socialist-oriented market economy. One year after the Doi Moi, the Law on Foreign Direct Investment was passed by the VII National Assembly. Since then, annual Foreign Direct Investment (FDI) inflows into Vietnam have increased dramatically from USD 0.34 billion in 1988 to \$5.3 billion in 2005, with an annual growth rate of 28 percent (GSO, 2006). During this period, FDI inflows to Vietnam have played a very important role such as stimulating export activities, introducing technology know-how, generating job opportunities, and providing the capital to meet the economic growth target. The Vietnam economy has shown a remarkable performance as one of the fastest growing economies in the world. After three decades of transforming from a central-planned economy to a form of capitalism, it is now Asia's second-fastest-growing economy, with the annual growth rate of 8.4 percent, trailing only China. This paper provides an overview of FDI in Vietnam and studies the impact of FDI on GDP growth in this country. The analysis is important for Vietnam in designing government policies to enhance economic development. It also contributes to the literature of FDI and economic growth in general and Vietnam in particular.

2. AN OVERVIEW OF FDI IN VIETNAM

FDI activities in Vietnam can be divided into four main time periods: 1988-1990, 1991-1995, 1996-2000 and 2001-2005. The opening of Vietnam economy to FDI in 1987 along with other subsequent measures to liberalize the FDI regime led to rapid increase of FDI inflows from 1988-1996. FDI inflows rose from 2.47% in 1987 to 34.89% of GDP in 1996. According to the Foreign Investment Advisory Service (FIAS) of World Bank, Vietnam had the highest level of FDI as percentage of GDP among all the developing and transition economies during this period. Factors that stimulated the foreign investor appetite for Vietnam included the market size, the attractiveness of a transitional economy, the strong work ethos, the high levels of education yet relatively low labor rate, plentiful resources, and so on. Geographical location was also one reason that led to the impressive rise in FDI inflows to Vietnam. Freeman (2002) suggested that during 1980s and 1990s, there was a "bull market" flood of foreign capital into the merging market. And within "the emerging market universe" Southeast Asia was a major beneficiary of this capital flow. In 1990, for example, Southeast Asia attracted 36% of all FDI flows to developing countries and the region exceed China's FDI inflows by more than three times (Freeman, 2002). The author also observed that there was a flow of foreign capital into the transitional economies of the former socialist bloc, where new business opportunities (and profits) could exist. Another force was the beginning of substantial intraregional FDI flows within Southeast Asia as countries such as Malaysia, Thailand and Singapore

began to export capital. Freeman concluded that as a transitional economy, located in Southeast Asia, Vietnam was “very well positioned to ride” the three forces (Freeman, 2002).

The impressive growth of FDI however was abruptly interrupted after 1996, from 34.89% to 17.65%. The 1997 Asian crisis played a part, since the bulk of FDI in Vietnam in the early 1990s had come from these countries. However, according to Jenkins (2006), the beginning of the downward trend in FDI was already evident before the crisis hit. Some scholars suggested that it was because the economic reform process in Vietnam was slowing down in the mid 1990s, while others emphasize the “euphoric” nature of expectations concerning investment opportunities in the country, which were almost bound to be disappointed (Freeman, 2002). Freeman explained that after nearly a decade, all the business embargoes had now been lifted, all the international business who wanted to be in Vietnam, were already present. Besides, the forecasts for domestic demand were proved to be exaggerated. The hurdles to business also became more apparent.

An important feature of FDI in Vietnam is that it comes from a wide variety of countries. In fact, investors from 76 different countries and economies have invested in Vietnam during the past two decades, but the United States is not the dominant investor. Singapore (14.08%), Taiwan (13.07%), Japan (10.43%), and Korea (9.28%) are the biggest investors with 46.85% of the total committed capital. Nguyen Phi Lan (2006) in his study observed that FDI inflows from these big investors fluctuated considerably from 1995 to 2005 because of the Asian financial crisis, such countries maintained relative constant FDI positions in Vietnam. In contrast, European countries such as France, the Netherlands, Germany and United Kingdom have shown declining FDI positions. But according to the author, these reductions were exchanged with the growth of FDI from the United States, British Virgin Islands, Luxembourg and China. The growth from the United States has increased during the past years, but its investment volume is still low compared to its potential. The United States in fact, ranks ninth, partly because the flows only began after the embargo was lifted in 1994. And even with the 1994 embargo lift, there were still a lot of obstacles for American companies to invest in Vietnam.

In December 2001, the bilateral trade agreement (BTA) between Vietnam and the US went into effect. The US agreed to grant most favor nation (MFN) status to Vietnam. Haughton and Nguyen (2002) quantify the effect that BTA had on FDI flows to Vietnam by using data from 16 Asian countries for 1990-1999. They found out that BTA lead to 30% more FDI into Vietnam in the first year, and an eventual doubling of the flow. This also boosted the economic growth by 0.6 percent annually. BTA is explained to affect the flow of FDI in four main ways. First, it makes foreign investment easier by requiring Vietnam to change from its current licensing regime to a registration system. (Registration is automatic while license involves permission). Second, BTA makes Vietnam a more attractive platform with an open access to the US market, the biggest economy in the world. The authors took an example that Korean footwear firms are more likely to expand their existing factories in Vietnam in order to better serve the US market. Third, the BTA in some way ensure the US investors of doing business in Vietnam and lastly, the BTA forces Vietnam to open up more of the economy and reduce barriers to FDI (Haughton & Nguyen Nhu Binh, 2002).

With government’s initiatives of public administrative reform and economic reform towards openness and global integration, Vietnam’s FDI increased again to \$5.3 billion in 2005. Of the total figure, more than \$3 billion came from 970 newly licensed FDI projects and the rest from additional investment injected into existing projects. The total number of licensed projects invested in by foreigners has increased from 37 in 1988 to 7,279 in 2005, worth a total of \$66.20 billion over the period 1988-2005 (GSO).

Most of the investment in Vietnam have focused on industries such as manufacturing (50.11%), real estate (9.45%), construction (7.81%), hotels and restaurants (7.78%), transport (7.04%) and concentrated their investments geographically in key economic areas in the south as Ho Chi Minh City, Dong Nai, Binh Duong, Baria Vung Tau and key economic areas in the north such as Hanoi, Ha Duong, Hung Yen, Hai Phong and Quang Ninh. From 1988 to 2005, Ho Chi Minh City attracted the most FDI (24 percent of the total capital) and accounted for over \$15.87 billion, followed by Hanoi with 17 percent of total capital, equivalent to over \$11.47 billion.

3. LITERATURE REVIEW

Prior to 1986, Vietnam as well as many other Communist countries such as China, Cambodia, and Cuba was influenced by Marxist radical view on political and economic theory. According to Marx and other radical writers, multinational corporations (MNC) are an instrument of imperialist domination and a tool for exploiting host countries to the exclusive benefit of their home countries. MNCs extract profits from the host country and take them to their home country, give nothing of value to the host country in exchange. FDI by MNCs therefore keeps the less developed countries relatively backward and dependent on advanced capital nations for investment, jobs, technology, and economic growth (Hill, 2006). By the end of the 1980s, the radical position was however retreat almost everywhere, including Vietnam.

Existing literature often discusses the relation between FDI and growth based on the theories of exogenous growth and endogenous growth. Exogenous growth model, also known as the Neo-classical model or Solow growth model, was developed by Robert Solow, Nobel Prize Winner in 1987 for his work on this model. Empirical tests based on this theory conclude that output growth results from factors such as increases in labor quality and quantity through population growth and education, increases in capital through foreign capital and progress in technology. The long-run rate of growth for a country is exogenously determined by assuming a savings rate or a rate of technical progress (Solow, 1956). However, the criticism of exogenous model is that it fails to explain why or how technological progress occurs. This failing has led to the development of endogenous growth theory.

Endogenous growth theory takes the Solow model one step further by explaining the effect of FDI on economic growth through knowledge spillover and the existence of human capital. Knowledge spillover is a channel of knowledge (technology) transfer from foreign subsidiaries to host country firms, which have been widely studied by various scholars. Blomstrom and Kokko (1998) revise the four channels of FDI spillover. Demonstration-imitation effect occurs when domestic firms learn superior technologies from foreign subsidiaries. Competition effect happens when foreign subsidiaries competition force domestic rivals to update their technologies and techniques. Foreign linkage effect implies that domestic firms also learn to export from foreign subsidiaries. Training effect suggests that there is always a movement of staff from foreign subsidiaries to domestic firms and training course for local employees (Blomstrom & Kokko, 1998). As a result of knowledge spillover, local firms can increase their output growth and hence contribute to the increase of GDP growth.

Many studies compared the efficiency between FDI and domestic investment. For developing countries, FDI has proved to be more efficient than domestic investment (Borenzstein et al., 1998). De Gregorio (1992) in his study finds that FDI was three times more efficient than domestic investment. Blomstrom et al. (1992) confirms that is no evidence of "crowd out" effect on domestic investment. In contrast, after running the model for 12 countries during the period 1971-2000, Agosin and Machado (2005) conclude that in three developing regions (African, Asia and Latin America), FDI has left domestic investment unchanged. There are several sub-periods for specific regions where FDI displaces domestic investment. In particular, there seems to be crowding out of domestic investment by FDI in Latin America. The empirical findings of existing literature find a mixed result for the impact of FDI on domestic investment. The effects of FDI, therefore, are not always favorable.

Another interesting finding is that many studies stress the importance of human capital for FDI. Nelson and Phelps (1996) suggest that larger stock of human capital makes it easier to absorb new products and ideas brought from multinational corporations (MNCs). Human capital is important for countries to benefit from the entrance of long-term capital flows. Barro (1991) used a sample of 98 countries in the period of 1960-1985 to conclude that the growth rate of real per capita GDP is positively related to initial human capital. Since FDI increases human capital and human capital fosters economic growth, FDI has a positive impact on economic growth. Borenzstein et al. (1998) take the importance of human capital to the next level when they discover that with low levels of human capital, FDI actually has a negative impact on economic growth. The study used data on FDI flows from industrial countries to 69 developing countries over the last two decades and the result suggested that FDI is an important vehicle for transfer of technology, contributing relative more to growth than domestic investment.

The impact of FDI on economic growth has been an interest for many empirical studies. An empirical analysis by Alfaro et al. (2002) using cross-country data for the period of 1975-1995 suggests that total FDI exerts an ambiguous effect on economic growth. However, countries with well-developed financial markets gain significantly from FDI. Wang (2003) finds that FDI in manufacturing sector has a positive impact on economic growth of host economies; but FDI in non-manufacturing sectors does not play a significant role in promoting economic growth.

Many samples from different locations of the world have also been tested and taken into consideration. Sánchez-Robles & Bengoa-Calvo (2002) explore empirically the interplay between economic freedom, FDI and economic growth. They pursue a panel data analysis on a sample of 18 Latin-America countries over the period of 1970-1999. The result implements that first, economic freedom in host country is found to be positive determinant of FDI inflows and second, FDI is positively correlated with economic growth in the host countries of the example considered. The authors also point out that human capital, economic stability and liberalized markets in host countries are important for the countries to benefit from the entrance of long term capital flows.

Graham and Wada (2001) applied an econometric test of whether FDI in China had contributed to increase the total factor productivity growth in provinces that have received large amounts of FDI. The tests suggested that the result was positive, and hence that FDI had contributed significantly to economic growth in China beyond that which results from faster capital accumulation. Bende-Nabende et al. (2001) also studied the casual relationship between FDI and economic growth of the ASEAN-5 economies over the period of 1970-1996. The study found that FDI has promoted economic growth most effectively through human capital factors and learning by doing effects.

Empirical studies have been conducted in different areas and countries of the world to examine the relationship between FDI and economic growth; however, not much literature has been found for the case of Vietnam. One main obstacle is that there is not enough data available to conduct any system of regression equation; hence the sample might be small due to a short timeframe.

In an attempt to study the linkage between FDI and economic growth, Nguyen Phi Lan (2006) used three statistical techniques in analyzing a panel dataset for 61 Vietnamese provinces over the period of 1996-2003. The empirical result implies that FDI has a positive and statistically significant impact on economic growth in Vietnam over the period 1996-2003. After reviewing the Eclectic Theory of FDI by Dunning and other studies by Chakrabarti (2001), Asiedu (2002) and Zhao (2003), Nguyen Phi Lan tests the other way of the linkage and finds that economic growth is an important factor to lure FDI inflows into Vietnam.

In addition, the author points out some other interesting findings. Labor force and exports have a positive impact on FDI, which is consistent with the fact that FDI in Vietnam mainly concentrated on labor-intensive and export-oriented manufacturing activities. The study also provides new evidence on the role of human capital and infrastructure in attracting FDI in Vietnam. Another important result from Nguyen Phi Lan's regression is that FDI in Vietnam crowds in domestic investment in Vietnam over the period 1996-2003.

4. METHODOLOGY

4.1 DATA

The data for the study was collected from a wide variety of resources, namely the World Development Indicators (World Bank), International Financial Statistics (IMF), and other Vietnamese government websites, including the General Statistic Office of Vietnam (GSO) and Ministry of Planning & Investment (MPI). One set was annual data from 1989 to 2005. The starting year, 1989, was the year that Vietnam started to witness the positive outcomes of "Doi Moi" and 2005 was one year before Vietnam joined the World Trade Organization. The second set of data consisted of quarterly figures from 1996 to 2005.

4.2 MODEL

The empirical segment of this study is based on the application of the Ordinary Least Squares (OLS) technique to examine the relationship between FDI and the level of economic growth for Vietnam. However, before running the regression analysis, we need to test for the stationarity of the data. The non-stationarity of any type of time series may raise serious doubts about the consistency of the estimated coefficients. One of the most common methods of correcting for non-stationary time series data is to use the first differences of the series. However, this method imposes many unit roots for the variable and some potentially important information may be lost. An alternative method is to use the Dickey-Fuller unit root test (Dickey and Fuller, 1979 and 1981). This test of the unit root determines whether or not the variables in the study are stationary. In the presence of unit roots for the time series data, this study will follow Engle and Granger (1987) to construct the co-integration model.

As mentioned above, most time series data follow a pattern and therefore are non-stationary. Let's assume two of the time series variables in this study, x_t (the level of GDP) and y_t (the amount of exports) are non-stationary variables. If the first difference of each time series is stationary, i.e. Dx_t and Dy_t are both $I(0)$, the series are integrated of order 1. If there is a linear combination of x_t and y_t such as $z_t = y_t - \alpha x_t$ in which z_t is stationary, then x_t and y_t are co-integrated. Let's further assume the following general regression model:

$$x_t = a + b y_t + z_t$$

where z_t is the residual of the model. The application of OLS to this equation is appropriate only if x_t and y_t are stationary, or if the two series are co-integrated. In other words, co-integration requires that their first differences (Dx_t and Dy_t) be stationary and that the residuals of the model (z_t) exhibit a stationary process. This study will apply the DF test to the first differences of the time series as well as the residuals to test their stationarity status.

The final step is to identify the appropriate regression models to test for the impact of FDI on economic growth of Vietnam. The following regression equations are developed to examine the statistical relationship between the variables in the model:

$$g = \alpha + \beta_1 \text{FDI} + \beta_2 X + \beta_3 M + \mu \quad (1)$$

$$g = \alpha + \beta_1 \frac{\text{FDI}}{\text{GDP}} + \beta_2 \frac{\text{Export}}{\text{GDP}} + \beta_3 M + \mu \quad (2)$$

$$\text{GDP} = \alpha + \beta_1 \text{FDI} + \beta_2 X + \beta_3 M + \mu \quad (3)$$

Based on theoretical and empirical research on the impact of FDI on economic growth, a system of equation is formed in which the real economic growth rate (g) and level of real GDP (GDP) are determined by FDI inflow (FDI), real money supply (M), and level of export (X). The error term, μ , represents an error term with zero expectations. Previous findings point out that there is a positive relationship between FDI and economic growth so a positive β_1 is expected.

4.3 REGRESSION ANALYSIS

The first step in using time series analysis is to test for stationarity of the data used. Table 1 shows the results of the Dickey-Fuller Unit Root test. The DF test is conducted for the levels of FDI, money supply and exports for Vietnam. As shown in Table 1, even though the levels of some of the variables are non-stationary, their differences are stationary. These findings allow us to apply regression analysis to data for this country.

TABLE 1: UNIT ROOT TEST

Variables	DF statistics w/o lags	DF statistics with lags
FDI	- 7.18 *** (0)	-
Money supply	2.31 (0)	2.73 * (2)
GDP	15.68*** (0)	-
Export	0.89 (0)	2.90* (3)

Level of significance *** 1% ** 5% * 10%
 Numbers in parentheses are the number of lags.

The results of the regression models are presented in Table 2. The first dataset (annual data) is tested for model (1) and (2) while the second dataset (quarterly data) is tested for model (2) and (3). As shown in Table 2, except for model (1) (which is based on Nguyen Phi Lan’s model) that indicates a negative relationship between the level of export and economic growth rate, the results of other models show that there are statistically significantly positive relationships between FDI, export, money supply and GDP. The use of quarterly data for the last model gives the best result when 98% of variability of change in the level of GDP can be explained by the change in the level of FDI, export and money supply.

TABLE 2: REGRESSION RESULTS

Model	α	FDI Inflow	Export	Money Supply
$g = 6.23 + 5.6 \text{ FDI} - (4.49) \text{ Ex} + 1.01 \text{ M} + \mu$ Adj. R Square = 48.98%	11.94***	4.27***	-2.04**	2.04**
$g = 5.69 + 11.30 (\text{FDI} / \text{GDP}) + 1.38 (\text{EX}/\text{GDP}) + 1.07 \text{ M}(g) + \mu$ Adj. R Square = 48.83%	8.13***	3.98***	2.15***	-1.6*
$g = 0.01 + 0.06 (\text{FDI} / \text{GDP}) + 0.05 (\text{EX}/\text{GDP}) + 0.001 \text{ M}(g) + \mu$ Adj. R Square = 29.75%	5.52***	1.22*	4.16**	0.17*
$\text{GDP} = 22361 + 2.24 \text{ FDI} + 0.85 \text{ EX} + 1.41 \text{ M} + \mu$ Adj. R Square = 98%	44.2***	-2.8***	2.6***	8.04***
p-value	*** 1%	** 5%	* 10%	

5. CONCLUSIONS

The results of the study are consistent with the findings of several available studies in the literature as they suggest that there is a statistically significant relationship between FDI and the rate of economic growth in Vietnam. In order to maintain a high economic growth and increase the export volume, Vietnamese government should open up more to FDI by revising some of its policies. As a global trend in recent years, MNCs have been reluctant to enact new projects; merger and acquisition, as an alternative, has been the main engine for FDI flow. Meanwhile FDI projects in Vietnam are mostly focused on green-field activity where new production capacity is created. Vietnam’s business legislation, in fact, does not allow foreign investor to acquire more than 30% of total shares in local company, if this company operates in one of the 35 approved business sectors. Furthermore, the existence of bureaucracy, red tape, inadequate legal infrastructure, weak law enforcing, poor physical infrastructure, corruption, high land rates, tax rates, IPR, etc. might discourage MNCs investing FDI in Vietnam. The banking and financial sector are also areas that need renovation in order to attract foreign portfolio investment to support FDI inflows.

The study could have included other independent variables such as real exchange rate, interest rate, government expenditure, etc. However, the interest rates were skyrocketing until mid 1990s and exchange rates changes were thrilling. For example, exchange rate in 1986 jumped by hundreds percentages due to more than 700% inflation in 1986 from 1985. Annual data of a longer time period (for example, from 1975 to 2005) could have been used to provide more accurate results. However, Vietnam was in war with the U.S. from 1954 to 1975. After the war, the country was in the wakes of reconstructions and reforms, collecting statistics became a difficult task due to government controls and devastations of war. The authors were unable to find any reliable data for the period of 1975-1988.

On January 12, 2007, Vietnam became the WTO's 150th member following a decision by the General Council to approve the Southeast Asian country's membership agreement. This day also marked a full normalization of Vietnam and the United States relations. Such developments have provided new opportunities for Vietnam particularly in its ability to attract and maintain FDI. However, the country still faces some serious challenges on its path to become a more prominent member of the global economy.

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