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THE IMPACT OF FOREIGN DIRECT INVESTMENT ON THE LABOR  
PRODUCTIVITY IN HOST COUNTRIES: THE CASE OF VIETNAM

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The impact of foreign direct investment on the labor productivity in host countries: The case of Vietnam

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## **1. Introduction**

To achieve sustainable economic growth, one of the major issues for developing countries is to obtain adequate foreign capital to escape from the vicious circle of low savings and low economic growth (Hayami and Godo, 2005). Through foreign direct investment (FDI), host countries can not only attain necessary capital, but also acquire technology, management and marketing skills. This is why many academics and policy-makers focus on the impact of FDI on the productivity of domestic firms.

Theories on FDI (e.g. Hymper, 1960; Blomstrom and Kokko, 1998) explain that the impact of FDI on the productivity of domestic firms is positive, and posit three key factors that account for this positive impact: high skilled labor, high technology abilities, and large domestic firm size. However, the empirical research has not yet reached a consensus. While a large number of studies (Caves, 1974; Globerman, 1979; Liu et al., 2000a, 2000b) find that this impact is indeed positive, several other studies (Aitken and Harrison, 1999; Knoings, 2000; Slaughter et al., 2002; Javorcik, 2004; Vahter, 2004; Thiam, 2006) claim that it is ambiguous or even negative.

In this paper, I am not going to test the impact of FDI on either the productivity in general or labor productivity of domestic firms, but the impact of FDI on the labor productivity in Vietnam as a whole. I hope to answer whether FDI increases overall labor productivity in Vietnam or not and what the main determinants of the spillovers of FDI to host countries are in the case of Vietnam. I also would like to answer whether the spillovers of FDI vary due to different forms of FDI as well as different locations.

This paper will be organized as follows: Section 2 reviews the relevant theoretical literature and the debate among empirical research about the impact of FDI on labor productivity in the host countries as well as the determinants of this impact. Section 3 briefly provides an overview of the economy and FDI flows in Vietnam as well as several previous studies about the impact of FDI on this economy in some relevant fields. Hypotheses are also postulated in this section based on the descriptive analysis of the case in Vietnam and the theoretical framework expounded in Section 2. The data and specific models are, subsequently, explained in Section 4 which is followed by a detailed report of the estimation results and interpretations in Section 5. Finally, the major findings and policy implications are summarized and proposed in Section 6.

## **2. Literature review**

Hymper as cited in Parry (1997) states that foreign investment involves not only the simple transfer of capital but also technology and superior management. This idea is followed up by Blomstrom and Kokko (1998) who explain that the spillovers from FDI to host countries may occur through three channels: knowledge shifts with skilled labor, technology transfer, and effective resource allocation due to competition.

These theoretical ideas have been examined mostly in the domestic manufacturing sectors in the empirical research. The research can be divided into two groups; one which concludes that FDI improves the productivity of domestic firms, and the other which argues that the impact of FDI is unclear or even negative.

The idea that FDI boosts the productivity of domestic firms was suggested by Caves (1974) when he tested the benefits of FDI in the manufacturing sectors of two leading host countries

at that time: Canada and Australia. He explains that FDI raises the productivity of host countries' resources by improving their allocation through competition among enterprises. FDI may also induce a higher level of technology in domestic firms which compete with it, supply to it or purchase from it. He also confirms that FDI accelerates the transfer of technology and innovation to domestic firms. For Canada, due to limited data, the correlation between the subsidiary shares and productivity levels of local manufacturing industries is unclear. However, for Australia, he finds that this correlation is unambiguous and positive.

Supporting Caves's study, Globerman (1979) shows that the labor productivity of domestic firms has a positive correlation with the presence of FDI in Canada. He also points out several determinants of FDI spillovers: industry's capital intensity, firm-scale economies, and labor quality. These ideas were followed up by Liu et al. (2000a). After carrying out an empirical analysis using panel data for 48 UK industries over the period 1991-1995, they prove that the greater the technological abilities the British firms possess, the greater the benefits they receive from FDI. They also show three determinants of the spillovers: capital intensity, learning efforts, and technological capabilities. Moreover, in another working paper, Liu et al. (2000b) indicate that FDI has a positive impact on labor productivity in the Chinese electronics industry, and they also conclude that the most important determinant is labor quality, followed by domestic firm size and the degree of foreign presence.

While these studies above mainly conclude that the impact of FDI on the productivity of domestic firms is clear and positive, much research shows that this impact is ambiguous or even negative. According to Aiken and Harrison (1999), domestic firms' productivity declines when foreign investment increases in Venezuela. They also prove that the positive relation between joint venture companies and domestic firms' productivity is only robust for small domestic firms, with less than 50 employees. Therefore, they conclude that this relation is quite small and ambiguous. These conclusions are different from that of Caves (1974) in terms of subsidiary shares and totally different from that of Liu et al. (2000a) and Liu et al. (2000b).

Making the same findings as Aiken and Harrison, Haskel et al. (2002) prove that the positive correlation between UK firms' total factor productivity and foreign presence is stronger for domestic firms that are smaller, less technologically advanced, and less skill intensive. Based on firm-level data from Lithuania, Javorcik (2004) challenges Caves (1974) by proving that in developing countries there is no evidence of spillovers from FDI into sectors which supply intermediate inputs. He also indicates that domestic firms' productivity benefits are associated with joint ventures but not with fully owned foreign projects.

Knonings (2000) finds the negative impact of FDI on the productivity of domestic firms in emerging market economies, including Bulgaria, Romania, and Poland. This finding, to some extent, relates to Vahter (2004) who proves that FDI effects are negative in Estonia and positive in Slovenia. He considers that the effects depend on the conditions in recipient countries, and proves that they have positive correlations with the level of development, different types of FDI – joint venture or fully owned foreign projects, and the level of skilled labor.

These results have been supported by Thiam (2006) who examines the linkage between FDI and productivity in eight East Asian economies – China, Hong Kong Specially Administered Region of China, Indonesia, Malaysia, Republic of Korea, Singapore, Taiwan Province of China and Thailand. Thiam finds that only Indonesia reveals evidence of Granger causality

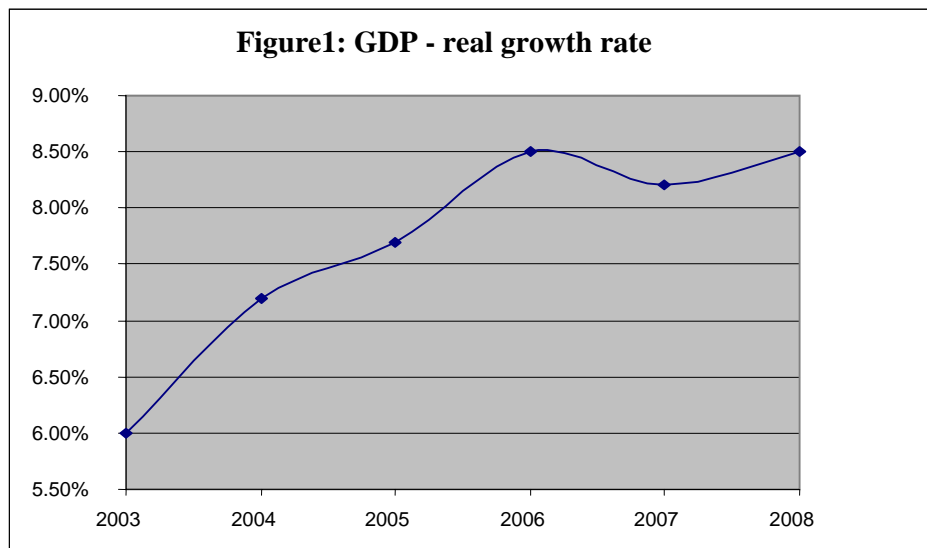
between FDI and technical change, which is viewed as the increase in technological capability of a country, and concludes that there is little evidence of technological transfer through FDI. Similarly, this test also shows no evidence that FDI causes efficiency change. The result of the Granger causality test is supported by the Toda Yamamoto test on the causality between FDI and total factor productivity growth. Thus, Thiam concludes that the sample economies show no strong evidence of productivity growth through FDI and suggests that FDI may be more effective in transferring technology when the recipient country is less technologically developed.

In summary, although FDI is theoretically believed to have positive spillover effects on the productivity of domestic firms in host countries, the empirical research shows mixed results. The magnitude of spillovers varies across the level of technology, the industry's capital intensity, skilled labor, domestic firm size, and the forms of FDI in host countries.

### 3. Vietnam - the case study

#### *Overview of the Vietnamese economy*

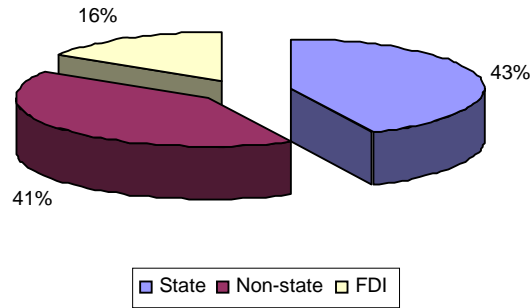
The development of the Vietnamese economy can be divided into two main periods, before and after 1986. Before 1986, it was a centralized economy where the Government formulated and planned all socio-economic targets. However, since Vietnam launched a political and economic renewal campaign (Doimoi) and opened the economy as a market-oriented economy in 1987, Vietnam has achieved many remarkable successes. According to the General Statistics Office of Vietnam, the economic growth has been 7.5% on average since 1990 and reached 8.5% in the period 2001-2007 (Figure1).



Source: CIA World Bank Fact book

Poverty was reduced from 70% in the early of the 1990s to 37% in 1998 and poverty alleviation target was completed 10 years earlier than the Millennium Development Goals promoted by the United Nations by 2005. Among the factors leading to these achievements, FDI flows are believed to play a very important role, which, in 2007, account for 16% of total investment capital in Vietnam (Figure 2).

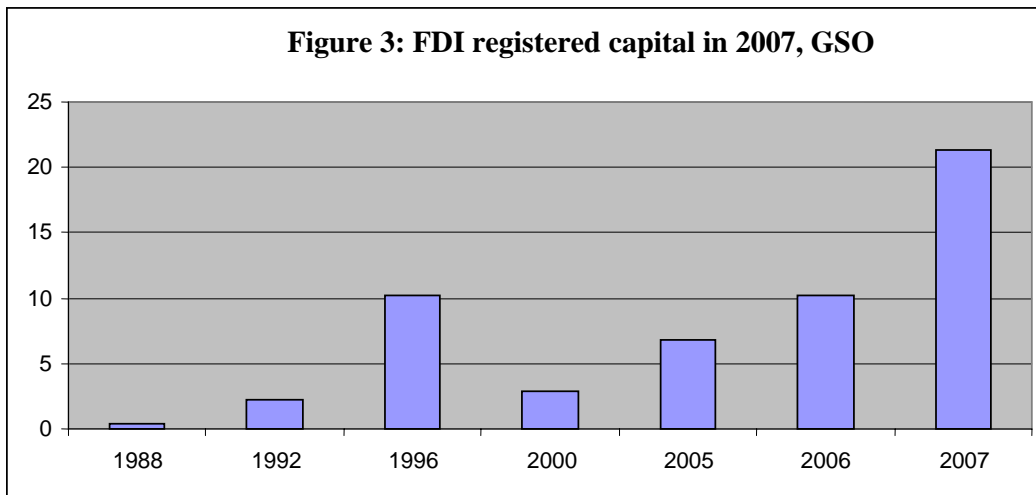
**Figure 2: Structure of investment by ownership in 2007, GSO**



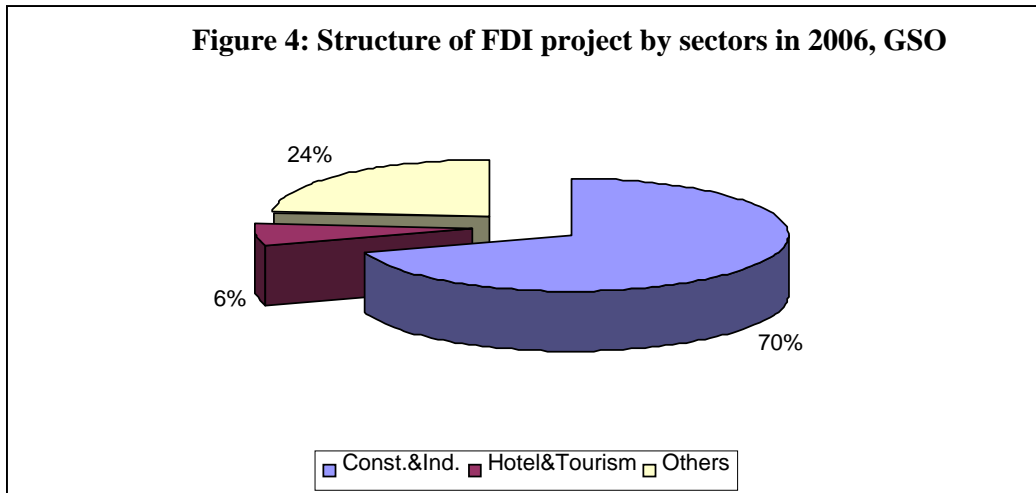
*FDI flows*

Since the approval of the Law on Foreign Investment in December 1987, Vietnam has achieved impressive performance in attracting FDI flows. According to General Statistics Office, Vietnam, the number of projects and total registered capital in 1988 were 37 and US\$ 0.341 billion respectively. These numbers increased to 196 and US\$ 2.208 billion respectively in 1992 and reached a peak at 372 projects and US\$ 10.164 billion in 1996, one year before the Asian Economic Crisis. Then, FDI flows to Vietnam declined dramatically to bottom out at US\$ 2.839 billion 5 years later – 2000. However, this flow has increased significantly in recent years and reached a peak at 833 projects and US\$ 10.201 billion by 2006, the highest numbers since 1987. Surprisingly, in 2007, as soon as Vietnam became an official member of WTO, the total registered capital jumped to over US\$ 20 billion, almost doubled that of 2006 (Figure 3).

**Figure 3: FDI registered capital in 2007, GSO**



Of these projects, 522 focused on the Industry and Construction sector, accounting for 66.26% of total projects and US\$ 7,161 billion, or 70.2% of total registered capital. This sector is followed by hotel and tourism with 1.68% of total projects and 6.13% of total registered capital (Figure 4).



One of the achievements mentioned above is a remarkable increase in employment. Figure 5 shows that the number of employees working in FDI firms was just around 200 thousand people in 2000. However, this number almost doubled just two years later, and surprisingly, it tripled after 4 years, in 2004 and reached 700 thousand people by 2006. The number is expected to continuously increase in coming years. This situation provides a good chance to study the impact of FDI on economic growth in general and on the labor productivity in particular.



*Previous studies*

Regarding the case of Vietnam, Vitto and Brooks, in the working paper – Vietnam: Foreign Direct Investment and Postcrisis Regional Integration, 2004, find that technological spillover effects through FDI on domestic firms in Vietnam have been positive but limited due mainly to the underdevelopment of the private sector. Supporting the two authors, Le (2005), points out that these spillover effects are positive and significant during 1995-1999, but they are unclear in 2000-2002. She also finds that the enlargement of FDI goes along with the development of domestic firms and suggests that this development should be enhanced to promote the spillover effects of FDI. Thus, in my paper, I will not do any test related to technological spillovers, and as I mentioned at the beginning of my paper, I am not going to

examine the impact of FDI on the productivity in general, but on the labor productivity in Vietnam as a whole. Therefore, my first hypothesis is:

*H1: The impact of FDI on the labor productivity in Vietnam is positive and depends on the gap between FDI and domestic firms in terms of industry's capital intensity, labor skills and firm scale.*

Furthermore, in Vietnam, FDI enterprises tend to focus on the cities where the infrastructure system is developed and those which are close to the international harbors such as HoChiMinh, Hanoi, Danang cities as well as the surrounding cities such as BacNinh, HaiDuong, Binh Duong. Thus, I hypothesize that:

*H2: The impact of FDI on the labor productivity in Vietnam differs across provinces.*

Regarding the forms of FDI enterprises, while some empirical research finds that these forms have different effects on the labor productivity in the host countries, other studies find that there is no difference among them. The clarification of whether there is any difference or not is very important to policy makers as well as to economic development. In my opinion, in developing countries such as Vietnam, local employees will gain more benefits such as knowledge, management skills, marketing skills in joint ventures rather than in 100 percent foreign owned capital where most of the important positions in the firms are occupied by foreigners. This, to some extent, implies that there is a difference in the impact of FDI on the labor productivity due to these forms. Thus, I hypothesize that:

*H3: The impact of FDI on the labor productivity in Vietnam varies based on the forms of FDI.*

#### **4. Methodology**

##### *Data source*

This paper will use the data of Enterprise Survey 2005 by the General Statistics Office of Vietnam. This survey collects data from all sectors in the national economy. The paper will focus on the data at the firm level in four sub-industries: food processing, textile, garment and footwear, electronics and mechanics containing 441 enterprises including domestic and FDI firms located over the country.

##### *Model Specification*

To answer my research questions, the following form of the basic model will be used:

$$labprodi = f(capinti, scalei, skilli, Fsharei, Dloca2, Dloca3, Dloca4, Fshare1i, Fshare2i, Fshare3i), \quad (1)$$

where  $i$  denotes firm  $i$ , the dependent variable  $labprod$ , measures the labor productivity of the firms in terms of value added per labor. The variable  $capint$  measures the capital intensity per labor. In this paper, it is measured as the visible capital assets created by the firms in the investment process. Normally,  $scale$  can be defined as the share of the domestic firms in total labors in the four-sub industries, including food processing, textile, garment and footwear, electronics and mechanics. It also can be considered as the proportion of revenues that the firms account for in the total revenues of these sub-industries. However, to prevent the multi-collinearity problem, in this paper the average of input cost per labor is used to measure the

scale of the firm with an assumption that firms which use larger amount of inputs would have larger scale.

The variable *skill* reflects the quality of labor in the firms, and the proportion of labor finishing at least college or vocational school could be used as a proxy. However, because of a lack of data, wage rate is used as a proxy with the assumption that a worker paid a higher wage rate would have better performance or better skills. The variable *Fshare* is used to test the spillovers of FDI to the labor productivity in general. This variable is equal to proportion of the average revenue the firm accounts for in the total revenues of the four sub-industries if it is an FDI enterprise and equal to 0 otherwise.

To examine the impact of FDI on labor productivity in different locations, in this paper, Vietnam is divided into 4 regions including three economic centers that have better infrastructure systems and are near international harbors, and the rest. The dummy variable, *Dloca2*, is equal to 1 if the headquarters of the firms are located in Hanoi (in the North) or the surrounding cities such as BacNinh, HungYen, and equal to zero otherwise. *Dloca3* is equal to 1 if the headquarters of the firms are located in DaNang (in the middle of Vietnam) or the surrounding cities such as QuangNam, and equal to zero otherwise. The dummy variable, *Dloca4*, is equal to 1 if the headquarters of the firms are located in HoChiMinh city (in the South) or the surrounding cities such as Baria-VungTau, BinhDuong, DongNai, and equal to zero otherwise.

Finally, the three variables, *Fshare1*, *Fshare2* and *Fshare3*, are used to capture the difference of the FDI spillovers due to different types of FDI. *Fshare1* is equal to *Fshare* if the firm-type is 100 percent foreign owned capital and equal to zero otherwise. *Fshare2* is equal to *Fshare* if the firm-type is joint venture and equal to zero otherwise. The final variable, *Fshare3*, is equal to *Fshare* if the firm-type is the rest of FDI types including Build-Transfer, Build-Operate-Transfer, Build-Transfer-Operate or Agreements between the Vietnamese and foreign Governments, and equal to zero otherwise.

To test the first hypothesis, the two following models developed from the first one are used in logarithm form as follows:

$$\ln(\text{labprodi}) = a0 + a1*\ln(\text{capinti}) + a2*\ln(\text{scalei}) + a3*\ln(\text{skilli}) + a4*\text{Fsharei} + ei, \quad (2)$$

and

$$\begin{aligned} \ln(\text{labprodi}) = & c0 + c1*\ln(\text{capinti}) + c2*\ln(\text{scalei}) + c3*\ln(\text{skilli}) + c4*\text{Fcapinti} \\ & + c5*\text{Fscalei} + c6*\text{Fskilli} + vi, \end{aligned} \quad (3)$$

where the interaction terms *Fcapint*, *Fscale*, *Fskill* are measured by multiplying *Fshare* by  $\ln(\text{capinti})$ , *Fshare* by  $\ln(\text{scale})$  and *Fshare* by  $\ln(\text{skill})$  respectively. These variables, in turn, are used to examine whether the impact of FDI on labor productivity depend on the gaps of capital, scale and skills between FDI and domestic firms or not.

Corresponding to the first hypothesis, in equation (2), *a4* is expected to be statistically significant and positive; *c4*, *c5*, *c6*, in equation (3), are also expected to be statistically significant.

To examine the various impacts of FDI on labor productivity across locations, this paper uses the model as follows:

$$\begin{aligned} \ln(\text{labprodi}) = & d0 + d1*\ln(\text{capinti})+ d2*\ln(\text{scalei})+ d3*\ln(\text{skilli})+ d4*\text{Floca2i} \\ & + d5*\text{Floca3i} + d6*\text{Floca4i} + w_i, \end{aligned} \quad (4)$$

in which, the interactions terms *Floca2*, *Floca3*, *Floca4* are used to test whether the impact of FDI on labor productivity varies across locations or not. These variables, subsequently, are measured by multiplying *Fshare* by *Dloca2*, *Fshare* by *Dloca3* and *Fshare* by *Dloca4*. Regarding the second hypothesis, in equation (4), the three coefficients *d4*, *d5*, *d6* are expected to be statistically significant and positive.

Finally, to examine the third hypothesis, this paper uses the model as follows:

$$\begin{aligned} \ln(\text{labprodi}) = & e0 + e1*\ln(\text{capinti})+ e2*\ln(\text{scalei})+ e3*\ln(\text{skilli})+ e4*\text{Fshare1i} \\ & + e5*\text{Fshare2i} + e6*\text{Fshare3i} + z_i. \end{aligned} \quad (5)$$

Corresponding to the last hypothesis, in equation (5), the coefficients, *e5* and *e6*, are expected to be statistically significant and positive. These coefficients are also expected to be larger than *e4* if *e4* is statistically significant.

## 5. Estimation Results

Table 1 shows the regression results of equation (2). The coefficient of the explanatory variable *Fshare* is statistically significant at the 1% level and positive. This means that the spillovers of FDI to the labor productivity in Vietnam are very significant and positive. Table 2 illustrates the three coefficients of the variables *Fskill*, *Fscale*, *Fcapint* in equation (3) are statistically significant at the 10%, 1% and 10% respectively, which reflect that the impact of FDI on the labor productivity in Vietnam depends on the gap between FDI firms and domestic firms in terms of labor skills, firm size or scale and capital intensity. In addition, the negative coefficients of *Fskill* and *Fcapint* indicate that the spillovers of FDI to labor productivity in Vietnam are more negative if the FDI firms tend to use more capital-intensive technologies that, in turn, require high skilled labor.

However, the positive coefficient of *Fscale* implies that the larger the scale of the FDI firm is the more positive the spillovers of it to the host country are. This indicates that larger FDI firms may obtain more experience in international business that enable them to operate their business more efficiently and to approach the international markets, which lead to higher labor productivity in the firms and, in turn, contribute to higher labor productivity as a whole.

| Table 1: FDI impacts on the labor productivity |                          |
|--|--------------------------|
| Inde.Var                                       | Coff                     |
| Incapint                                       | 0.08***<br>(0.03)        |
| Inscale  | 0.18***<br>(0.04)        |
| Inskill  | 0.88***<br>(0.08)        |
| Fshare   | 16706.49***<br>(6262.09) |
| _cons  | 0.16<br>(0.24)           |
| Dep.Var  | ln(labprod)              |
| Obs  | 441.00                   |
| R-squared                                      | 0.5026                   |

| Table 2: Determinants of the impacts |                          |
|--------------------------------------|--------------------------|
| Inde.Var                             | Coff                     |
| Incapint                             | 0.09***<br>(0.03)        |
| Inscale                              | 0.15***<br>(0.04)        |
| Inskill                              | 0.94***<br>(0.09)        |
| Fskill                               | -1.6e+04*<br>(8329.72)   |
| Fscale                               | 13642.84***<br>(4626.33) |
| Fcapint                              | -5689.81*<br>(2938.78)   |
| _cons                                | 0.08<br>(0.25)           |
| Dep.Var                              | ln(labprod)              |
| Obs                                  | 441.00                   |
| R-squared                            | 0.5025                   |

(\* significant at 10%; \*\* significant at 5%; \*\*\* significant at 1%)

The regression results of equation (4) are illustrated in Table (3). The two coefficients of *Floca2* and *Floca4* are positive and statistically significant at the 10% and 1% level respectively. This explains that in comparison with other cities the spillovers of FDI to the labor productivity are more positive and unambiguous in the two biggest cities: Hanoi capital and HoChiMinh as well as their surrounding cities such as BacNinh, HaiPhong, HaTay in the North and BaRia-VungTau, DongNai, BinhDuong in the South. The statistically insignificant coefficient of *Floca3* may imply that except DaNang that has obtained a very good infrastructure system due mainly to the great efforts of the local government for a long time, the FDI flows into the middle of Vietnam as well as the rest of the country, by 2005, have been limited.

| Table 3: The impact across locations |                         | Table 4: The impact based on FDI type |                          |
|--------------------------------------|-------------------------|---------------------------------------|--------------------------|
| Inde.Var                             | Coff                    | Inde.Var                              | Coff                     |
| Incapint                             | 0.08***<br>(0.03)       | Incapint                              | 0.08***<br>(0.03)        |
| Inscale                              | 0.18***<br>(0.04)       | Inscale                               | 0.17***<br>(0.04)        |
| Inskill                              | 0.88***<br>(0.08)       | Inskill                               | 0.86***<br>(0.08)        |
| Floca2                               | 16599.66*<br>(9139.96)  | Fshare1                               | 8955.91<br>(7524.10)     |
| Floca3                               | 58054.03<br>(60713.57)  | Fshare2                               | 60206.82**<br>(29495.43) |
| Floca4                               | 6263.55***<br>(2396.51) | Fshare3                               | 26511.76***<br>(8570.27) |
| _cons                                | 0.17<br>(0.24)          | _cons                                 | 0.26<br>(0.24)           |
| Dep.Var                              | ln(labprod)             | Dep.Var                               | ln(labprod)              |
| Obs                                  | 441.00                  | Obs                                   | 441.00                   |
| R-squared                            | 0.4979                  | R-squared                             | 0.5012                   |

(\* significant at 10%; \*\* significant at 5%; \*\*\* significant at 1%)

Finally, the regression results of equation (5) are shown in Table 4. The positive but statistically insignificant coefficient of *Fshare1* implies that the spillovers of 100% foreign owned capital firms are ambiguous. In contrast, the coefficients of *Fshare2* and *Fshare3* are strongly positive and statistically significant at the 5% and 1% level respectively.

Furthermore, the coefficient,  $e_5$ , is much larger than  $e_6$ . This means that, among FDI types, the positive impact of joint ventures on the labor productivity in the host country is unambiguous and strongest, followed by the rest of the FDI types excluding 100% foreign owned capital. This implies that local labor who work in joint ventures and other FDI types have more opportunities to gain knowledge, skills, marketing and management, than those who work in 100% foreign owned capital firms.

## 6. Conclusion

This paper studied the impact of FDI on the labor productivity in Vietnam. Four main questions were addressed. First, does the FDI have positive effects on the labor productivity in Vietnam? Second, does the impact depend on the skills, scale and capital intensity gaps between the domestic and FDI firms? Third, does the impact vary across locations? Finally, is there any different effect of FDI on the labor productivity due to different types of FDI? I find that the spillovers of FDI to the overall labor productivity in Vietnam are unambiguous and strongly positive. This, once again, emphasizes the crucial role of foreign capital in economic development in developing countries such as Vietnam. Particularly, through Foreign Direct Investment, the host countries obtain not only necessary capital, but also attain

modern technology, management skills, and marketing skills. The presence of FDI firms facilitates competition between enterprises in the host countries, which enables them to use resources more efficiently, improve technology as well as management and in turn improve labor productivity as a whole.

I also find that the spillovers of FDI in Vietnam depend on the skills, scale, and capital intensity gaps between FDI and domestic firms. The negative impacts of skills and capital intensity gaps on the overall labor productivity imply that Vietnam, in the short run, may encourage FDI firms that tend to apply labor-intensive technologies to use the labor force, which is abundant and relative cheap in developing countries including Vietnam. However, in the long run, it should concentrate on closing the technology gap between domestic and foreign firms.

Furthermore, improving the skills of local workers is very important because it seems that relative cheap labor will no longer be a competitive factor to attract FDI in the near future. Thus, the Vietnamese government should pay attention to improving skills for labor through vocational colleges and training programs. The government should also develop domestic enterprises, particularly small and medium enterprises by providing them with more training programs on new technologies. The government should help these firms to renew their technologies, machines and so on to catch up and compete with FDI firms in domestic markets as well as to compete with foreign firms in the international markets.

The spillovers of FDI in Vietnam were also found to be different across locations. The regression results illustrate that FDI flows tend to focus on the two biggest cities, Hanoi capital in the North and HoChiMinh city in the South as well as their surrounding cities such as HaiDuong, BacNinh or BaRia-VungTau, BinhDuong, DongNai. This suggests that to assure equitable development among the regions in order to achieve sustainable economic development, the government should encourage investors including domestic and foreign firms to invest in the relatively less developed regions such as mountainous provinces in the North or remote areas in the middle of Vietnam through policies such as tax and investment incentives. The government, besides providing tax incentives, could spend the national budget on infrastructure systems including roads, markets and schools to improve comparative advantages of these areas in order to attract more investments.

In addition, this paper also finds that there are some differences in the spillovers of FDI in Vietnam due to different types of FDI. Joint ventures and other types of FDI, excluding 100% foreign owned capital, were found to have very strongly positive impact on the labor productivity as a whole. This finding suggests that in developing countries such as Vietnam, working in joint ventures as well as other FDI contacts enables local workers to learn more about knowledge, management, and marketing skills than working in 100% foreign owned capital firms where most of the high positions, which require skilled labors as well as facilitate skills improvement, might be occupied by foreign experts. In such FDI firms, local workers might occupy simple and low skilled jobs.

Finally, this paper, however, uses cross-sectional data from the data of Enterprise survey 2005 in Vietnam. The spillovers of FDI in Vietnam in a particular period of time may be different from the spillovers that might occur over a period of time. Thus, to examine the spillovers of FDI in a dynamic framework, panel data analysis is needed. This paper also concentrated on the firm level without specific distinction of sectors, so the differences in spillovers of FDI across sectors have not been captured yet. Therefore, further research on the

different spillovers of FDI in different sectors is required. In addition, the different impacts of FDI on different types of domestic firms in the same sectors, such as private and state-owner enterprises in the textile industry, is required before reaching a final conclusion on these effects.

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