China's VAT on Foreign Enterprises and Its Impact on Attracting Investments by Local Governments¹

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Abstract

China's economic reforms over the past 20 years have made it a magnet for foreign direct investment (FDI). In selecting investment sites on the Mainland, foreign investors look into various factors, and local tax credit is a critical one. The purpose of this paper is to examine how the value-added tax (VAT) on foreign-invested enterprises affects the attractiveness of a local site. First, the authors review the relationship between FDI and VAT from 2000 to 2005 in various areas. Next, panel data 2003-2005 in the *China Statistical Yearbook* for 30 regions are examined. The paper concludes that in Mainland China as a whole, or in eastern and central regions, local VAT rates have little effect on foreign investments. However, in the west region, lower VAT means greater attraction to foreign investors. In other

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words, in considering a site in the western region, foreign investors give preferential VAT rates greater weight than in the eastern and central regions. Also, this paper found that for foreign investors, the factors affecting their site selections in eastern, central and western regions vary greatly.

Key words: foreign-invested enterprises, China, foreign direct investment, value-added tax, and preferential tax policies.

I. Introduction

Every enterprise needs a good investment environment. In late 1970s, China switched its long term closed-door policy to a policy of opening up and reform. Since then, China has adopted preferential policies to attract foreign investment in the hope of accelerating its industrialization and upgrading its industrial level. The policy of opening up has two basic goals. First, foreign investment is channeled into regions to fill the capital shortfall in infrastructure development. Second, foreign capital could bring along with it advanced technologies. As China has been developing its market economy, foreign investment has kept flowing in with a view of the vast market potential, cheap land costs, sufficient labor force, and various tax credits. The Chinese market, as a whole, is a magnet in reality.

As the market opening-up is getting deeper and wider, the Chinese government has promulgated laws and policies to attract and assure foreign investors. In 2001, China became a member of the World Trade Organization (WTO), indicating its commitment to further liberalization from a quasi-opened and quasi-protected market to one that is fully open. As China must comply with international rules in economic and trade activities, this will increase its attractiveness to foreign investors, particularly those eyeing China's domestic demand. Evidences show that FDI and its advanced manufacturing technology and business management have driven China's economic growth. Since 1994, foreign enterprises have become a major source of generating foreign reserves, in addition to creating tax revenue for local governments. According to the Ministry of Commerce, as of the end of 2006, China had approved the establishment of more than 590,000 foreign-invested enterprises, amounting to a total foreign investment of US\$685.4 billion. Fanzhang Huang pointed out that foreign investment played a significant role in the process of China's modernization and economic reform. All these indicate the importance of foreign investment for China's economic expansion.

China's entry into the WTO has led to market opening up to a wider degree, making it particularly attractive to foreign investors focusing on domestic markets. The foreign investment theory enumerates key factors considered by foreign investors, such as greater profits, certain monopoly advantages, lower transportation costs, local production, and product life cycles, in deciding on investment sites. Some empirical researches apply these factors of foreign investment theory to examine the attractiveness of different Mainland areas. Among these factors, the study of tax rates and categories on foreign investors' willingness to select particular sites is an interesting subject.

China's current taxation system has been in place since the reform of its industrial and commercial tax system in 1994. Current taxation system consists of three levels – central, local, and central-local taxes, structured by the tax regulators and revenue scope. Under the current system, there are 15 taxes applicable to foreign-invested enterprises. Among them, the income tax on foreign-invested enterprises in provinces, cities and areas could be the most important. However, the income tax rate is not available from China's official

statistics. This paper thus chooses the VAT as a variable to study its weight in foreign investors'selection of sites, whether in provinces, cities or areas.

Theoretically, from the perspective of tax burden on an enterprise, VAT, an indirect tax, will be transferred to consumers or end users eventually. But, in reality, in an enterprise's normal course of production and transaction, VAT burden might not be transferred to consumers or end users entirely and timely. The main reason is that tax paid for purchases of raw materials and goods and inventories will take up some funds and interests in the opening turnover period. Because of supply and demand conditions and market competition, enterprises might realize a sale smaller than the purchase in the given period, thus making the VAT negative balance in this period to carry over to the next period. This could take up some funds and interests. Therefore, higher VAT means greater operation costs for enterprises and negative to its operation and survival. Thus, VAT could be an important determinant factor for foreign investors in selecting the locations.

The purpose of this paper is to study whether local VAT rate is an important factor for foreign investors in making direct investments. The paper is based upon the statistics in the *China Statistical Yearbook* of collected VAT and other surcharges on foreign-invested enterprises in Mainland areas to compute the VAT rate on every yuan of profit earned. We first analyze the FDI figures and VAT rates from 2000 to 2005. Next, this paper uses the panel data from 30 provinces, cities and areas from 2000-2003 in the *China Statistical Yearbook* to do an ordinary least square (OLS) analysis. The research finds that only in the western region will VAT rates have an impact on the investment willingness of foreign enterprises.

This paper's structure is as follows. The second part is a literature

review of theories on overseas investment and earlier studies of the factors affecting foreign investors'site selections in China. The third part describes China's tax systems, foreign investment situations in different regions, and VAT rates on foreign-invested enterprises. The fourth part introduces empirical models adopted by the paper, data sources and variables. The fifth part explains the results. The sixth part includes conclusions and policy suggestions.

II. Literature Review

As mentioned above, the major purpose of the paper is to study whether there is an impact from local VAT rates on the regions' attraction on foreign investors. This part reviews foreign investment theories and studies on the relationship between host countries' tax rates and their absorption of foreign investments.

A number of theories examine foreign direct investments. Why multinational enterprises decide to do foreign investment is explained by the "market power approach", "internalization theory", "competitive international industry" and "eclectic theory." W. Griffin Ricky and Michael W. Pustay believe that John H. Dunning's eclectic theory is best of all in explaining the outset of investment in other countries. In Dunning's view, no single reason can sufficiently explain FDI. He proposes the eclectic theory, blending the "industrial organization approach", "location theory" and "internalization theory", to say that profitability of FDI is subject to the forms and nature of the investment, and the characteristics of host countries. This theory sets a line-up of FDI factors -- first, ownership advantage, second, location advantage, and third, internalization advantage.

Besides Dunning's eclectic theory, other theories on FDI include the new "classical theory" (investors want to generate more profits),

the "location theory" (investors want to have sites that save on transportation costs), Stephen H. Hymer's "intangible asset theory" (investors wish to gain a monopoly advantage), and the "product life cycle theory" (to explain the outset of overseas investments), and the "internalization theory" (multinationals make overseas sites internal branches).

FDI is an important international economic activity for multinationals, which aspire to achieve internal growth and quick expansion by continuous mergers and acquisitions. Moreover, Ricky and Pustay conclude that factors determining FDI site selections can be classified into three aspects -- supply, demand and politics.

The study of factors attracting FDI to Mainland China largely follows the approaches of the above-mentioned foreign investment theories. Technically, an area with a large market, good infrastructure and preferential policies attracts FDI. In a study by Cletus C. Coughlin and Eran Segev, a Chinese province's or region's absorption of FDI is affected by the investment flowing into its neighboring provinces or regions. Other influential factors are market size, average productivity, distances to the coast, average wages and literacy rates.

In addition, time and investment environment alter the FDI determinants. One study indicates that in the years around 1991, irrespective of different opening-up levels for FDI in provinces, major factors affecting the FDI inflows into China's regions were labor quality, infrastructure, political stability and the degree of openingup. One of the significant conclusions of this study is that coastal provinces have been more successful in attracting FDI than the central and western provinces. Chun-Chien Kuo and Jr-tsung Huang divided China into two regions -- the coastal region and the inland region, and pointed out that the level of wages had a significant negative impact on FDI in the coastal regions. For inland regions, the accumulated amount of FDI and exports'share in gross domestic product (GDP), an indicator of the degree of openness, have a significant positive relationship with FDI input.

In another study by An-bang Kao, Jr-tsung Huang and Chunnan Pan, there is a positive relationship between FDI and the efficiency of local governments in China. The three authors pointed out that the actual average wages of workers and the share of industrial output of state-owned enterprises (SOEs) in total industrial output in a given area had negative effects on the amount of FDI. Factors that had a positive relationship with FDI include railroad length per square kilometer, the accumulated amount of real FDI, the percentage of total imports and exports in GDP and actual GDP per capita. Provinces and cities in eastern and the central regions are more attractive to foreign investors than the western region.

However, for all the local governments' preferential policies, including tax incentives and tax credits, to attract foreign investment, will foreign investors factor these into their investment feasibility study? Ricky and Pustay used the incentive for economic development theory to note that governments usually offer various incentives to attract investors to their territories. However, government incentives that are really attractive enough to be catalysts for FDI are low utility (water, electricity, gas) rates, good training programs for employees, sound infrastructure and tax credits. It is evident that tax preferences provided by China's local governments are actually an important determinant of foreign investment, among other factors.

Commenting on numerous tax incentives by China's local governments to attract foreign investments, Bo-sheng Feng said that many tax incentives have exceeded the scope authorized by the central govern-

ment. Obviously, China's local governments have provided the most possible preferential measures to the farthest reach within their limited tax rates. The study by Chong-ta Yan and Hui-chin Li, that by Yonching Ho, and the third by Chang Kao and Shi-ying Wu all pointed out that local investment incentives and tax credits are important factors when foreign investors conduct investment eva-luations. This is especially true when most of China's local governments regard the attraction of investments as an indication of their political performance, thus vying to offer tax credits, among other incentives, in order to promote economic development and increase local tax revenues.

Huai-chia Luo studied investors' evaluation of the investment climate in various Chinese regions, and argue that two factors -- the realization of tax incentives and the execution of tax affairs - are major determinants, among others, in investors'selection of cities for recommendation. Chun-kai Pei used questionnaires to conclude that China's preferential tax policies are the most important factor to attract Taiwanese investors in Mainland China. Among foreign investors' consideration factors, Hong-ming Tsai concludes that tax problems have become a major concern for Taiwanese companies, second only to operation risks in China's dynamic investment environment. Shi-tsong Kang noted that in the competition to attract FDI by countries, countries have switched their attention to hardware facilities to foster a good taxation environment. Whether a site with a good taxation environment becomes a key factor for investors to decide to put their money in or not.

Available studies of FDI evaluation factors in site selection in China identify the factors to be market size, infrastructure, preferential polices, average productivity, distances to the coast, labor quality, labor costs, political stability, market openness, the existing accumulated FDI, and prevailing tax rates on FDI. Although tax rates have a direct impact on the FDI willingness, little research has used scientific research methods to examine this.

III. China's Prevailing VAT Rates on Foreign-invested Enterprises by Region

As mentioned above, local VAT on foreign-invested enterprises may play an important role in a region's attraction of foreign investment. This part will review FDI and VAT on foreign-invested enterprises in various regions of China in the years from 2000 to 2005. The first section is a summary of foreign investment amounts by region. The second section is a look at China's taxation system for foreign investment. The final section will use the official data from the *China Statistical Yearbook* to compare regional VAT rates on foreign-invested enterprises and make a preliminary analysis on the relationship between VAT rates and foreign investment.

1. Current Foreign Investments in China by Region

For more than a decade, China has been regarded as a highly potential market and an important driving force for global economic growth. With low-cost production and enormous human resources, China has exported goods to developed markets in direct competition with newly emerging economies. This has reshaped global industry and overtaken the United Stated to be the major FDI destination. Foreign investment has channeled into China not only enormous funds but also intangible assets, including advanced technologies, management expertise, and professionally trained employees, which enabled China to attain a higher economic stage and become more competitive in the global economy.

By the end of 2006, China had approved the establishment of

more than 590,000 foreign-invested enterprises, with actually utilized foreign investments amounting to US\$685.4 billion. In 2005, the number of newly-established foreign-invested enterprises reached 44,019, an increase of 0.81% from 2004, with contracted foreign investment of US\$189.065 billion (up 23.19% from 2004), and actually utilized foreign investment of US\$72.406 billion (up 19.42%). In 2004, China registered a 6.29% year-on-year rise of the number of newly-established foreign-invested enterprises to 43,664, while contracted foreign investment surged 33.38% to US\$153.5 billion and actually utilized foreign investment grew by 13.32% to US\$60.6 billion.

Table 1 is a ranking of the FDI in 31 provinces and cities in China in the years from 2000 to 2005. Most of the top ten places are in coastal regions (including Fujian, Guangdong, Jiangsu, Shanghai, Zhejiang, Shandong and Liaoning), which combined to share more than 50% of China's entire FDI. In contrast, foreign investment in non-coastal regions had a smaller share of China's total. Further analysis finds that the top ten in coastal regions cluster into three investment circles. The first investment circle covers three provinces -- Guangdong, Fujian and Hainan. Bordering Hong Kong and Macao and close to Taiwan, this circle mainly attracts investors from Taiwan, Hong Kong, Macao and Southeast Asia, in what can be called the "South China, HK-Macao-Taiwan Investment Circle." The second circle encompasses Jiangsu Province, Zhejiang Province, and Shanghai. The three enjoy a high degree of opening up, have had historical close interactions with American and European countries, and boast a sound economic, cultural and technological basis. Therefore the circle has attracted considerable investment from American and European companies, in what can be called the "East China Euro-American Investment Circle." The third investment circle refers to the northeast region, including Liaoning and Shandong provinces, Beijing and Tianjin cities. Geographically convenient to Japan and South Korea, these four areas have developed into a "Northeast Asia Japan-Korea Investment Circle."

					unit: U	JS\$ million
Year Region	2000	2001	2002	2003	2004	2005
Beijing	1,684(7)	1,768(9)	1,725(8)	2,191(8)	2,560(7)	3,528(6)
Tianjin	1,166(9)	2,133(8)	1,582(9)	1,535(11)	1,721(11)	2,433(7)
Hebei	679(11)	670(12)	783(13)	964(13)	700(13)	516(16)
Shanxi	225(23)	234(23)	121(24)	214(22)	90(25)	98(24)
Inner Mongolia	106(25)	107(24)	177(23)	89(24)	343(17)	263(20)
Liaoning	2,044(6)	2,516(6)	3,412(6)	2,824(6)	5,407(6)	2,303(8)
Jilin	337(17)	338(20)	245(21)	191(23)	192(21)	332(19)
Heilongjiang	301(19)	341(19)	355(20)	322(20)	339(18)	406(17)
Shanghai	3,160(4)	4,292(3)	4,272(4)	5,468(4)	6,311(4)	6,711(4)
Jiangsu	6,426(2)	6,915(2)	10,190(2)	10,564(1)	8,948(2)	9,501(2)
Zhejiang	1,613(8)	2,212(7)	3,0767(7)	4,981(5)	5,733(5)	5,209(5)
Anhui	318(18)	337(21)	384(18)	367(18)	429(14)	539(14)
Fujian	3,432(3)	3,918(4)	3,838(5)	2,599(7)	1,924(9)	2,061(9)
Jiangxi	227(22)	396(16)	1,082(11)	1,612(9)	2,045(8)	1,032(11)
Shandong	2,971(5)	3,521(5)	4,734(3)	6,016(3)	8,664(3)	8,886(3)
Henan	564(13)	457(15)	405(17)	539(14)	422(15)	518(15)
Hubei	944(10)	1,189(10)	1,427(10)	1,569(10)	1,744(10)	753(12)
Hunan	678(12)	810(11)	900(12)	1,018(12)	1,418(12)	1,146(10)
Guangdong	11,281(1)	11,932(1)	11,334(1)	7,823(2)	10,012(1)	12,364(1)
Guangxi	525(14)	384(17)	417(16)	419(16)	296(19)	375(18)
Hainan	431(16)	467(14)	512(15)	421(15)	119(24)	44(25)
Chongqing	244(21)	256(22)	196(22)	261(21)	252(20)	220(21)
Sichuan	437(15)	582(13)	556(14)	412(17)	365(16)	607(13)
Guizhou	25(27)	28(28)	38(28)	45(26)	63(27)	35(27)
Yunnan	128(24)	65(26)	112(25)	84(25)	142(22)	173(23)

Table 1Actual Utilized FDI in 31 Chinese Provinces and Cities
(ranking)

Tibet	0(30)	0(31)	0(31)	0(31)	0(30)	1(31)
Shaanxi	288(20)	352(18)	360(19)	332(19)	141(23)	190(22)
Gansu	62(26)	74(25)	61(26)	23(28)	35(29)	21(28)
Qinghai	0(30)	36(27)	47(27)	25(27)	0(30)	5(30)
Ningxia	17(29)	17(30)	22(29)	17(29)	67(26)	42(26)
Xinjiang	19(28)	20(29)	19(30)	15(30)	40(28)	8(29)

Sources: Authors compile from the *China Statistical Yearbook*. Please refer to *China Statistical Yearbook 2001* to *China Statistical Yearbook 2006*, published by National Bureau of Statistics of China. (Beijing: China Statistics Press, 2001-2006).

A comparison of the three investment circles reveals the following facts. In the South China Hong Kong-Macao-Taiwan Investment Circle, most investments are of relatively small scale and lower technology levels, but achieved large exports. In the East China Euro-American Investment Circle, investments are of large scale and in high-tech industries, accounting for export substitution. In the Northeast Asia Japan-Korea Investment Circle, the investments center on energy and raw material industries and heavy industries, in line with the industrial strength in the northeast region of China.

Types of foreign investments in China can be classified into joint ventures, cooperative enterprises, joint development and wholly foreign-invested enterprises. According to statistics from the Ministry of Commerce of China, joint ventures are the most popular type of foreign investment in China. In China's regulations and enforcements rules governing foreign companies, foreign-invested enterprises are also called the three [types of foreign] invested enterprises, i.e. wholly foreign-invested enterprises, Chinese-foreign joint ventures and Chineseforeign cooperative enterprises.

2. Prevailing VAT Rates on Foreign-invested Enterprises by Region

Taxation serves as the major source of government revenue in China, and it is also an important leverage for the government in macroeconomic adjustments. It has a great influence on China's social and economic development. To adapt to the new circumstances of China's opening up and achieve the double aims of attracting foreign capital and of increasing tax revenue, China began to build a comprehensive taxation system to follow international practices at the initial stage of its opening up.

In September 1980, the National People's Congress passed the "Law on Income Tax for Chinese-Foreign Joint Ventures in the People's Republic of China" and the "Law on Individual Income Tax in the People's Republic of China", with enforcement rules of the two laws being promulgated in the same year. A few months later, the "Law on Income Tax for Foreign Enterprises in the People's Republic of China" was promulgated on December 13, 1981. By then, the three foreign-related tax laws had constructed an environment conducive to foreign investments. At that time, China's taxation system was oriented toward expanding preferential in both category and range. In April 1991, the two laws governing foreign-invested enterprises were consolidated to be the "Income Tax Law of the People's Republic of China for Foreign Enterprises and Enterprises with Foreign Investment" to build a unified taxation framework.

On November 26, 1993, the standing committee of the State Council adopted the "Provisional Measures on Value-Added Tax", the "Provisional Measures on Consumption Tax" and the "Provisional Measures on Business Tax," and abolished the industrial and commercial tax. The circulating tax was changed to include VAT, the consumption tax and the business tax. All these decisions took effect on January 1, 1994, and they apply to local enterprises and foreign enterprises (the three types of foreign-invested enterprises). Tax breaks and exemptions for foreign companies are regulated separately in the "Income Tax Law of the People's Republic of China for Foreign

Enterprises and Enterprises with Foreign Investment", the "Enforcement Rules of the Income Tax Law of the People's Republic of China for Foreign Enterprises and Enterprises with Foreign Investment", as well as other tax laws and regulations.

Among current tax laws and administrative regulations published by the Chinese government, 15 taxes specifically apply to foreigninvested enterprises and foreigners. Enterprises with registered investment from Taiwan, Hong Kong, Macao and overseas Chinese are treated as foreign enterprises or foreigners and governed by applicable tax laws, and enjoy preferential treatments accordingly. There are a total of 12 preferential tax items for the three types of foreign-invested enterprises (Chinese-foreign joint ventures, Chinese-foreign cooperative enterprises and foreign-wholly owned enterprises). Among these preferential treatments, "geographical preferential" refers to preferential tax credits for those who register and invest in special economic zones, economic development zones, hi-tech development zones, and other specially designated preferential tax zones. Foreign businesses are very familiar with these tax preferential.

As indicated in the State Council's "Regulations Concerning Implementation of the Tax Sharing System in the Fiscal Management System", China's tax system consists of three tiers – revenues of the central government, revenues of local governments and revenues shared by the central and local governments. Of these, 15 tax items are related to foreign businesses. Table 2 gives the details about VAT, the consumption tax, the business tax, the income tax for foreign-invested enterprises, the stamp tax and resource tax.

Tax applicable to foreign businesses	central tax	local tax	central- local shared tax	notes
VAT	O		Ô	VAT levied by customs goes into the central government; others are shared (the Central government 75%, local governments 25%)
Consumption tax	\odot			Tax levied by customs are included
Business tax	O	O		As for business tax paid by railway departments, head offices of banks and insurance companies, the part collected based on an additional 3% belongs to the central govern- ment; Others belong to revenues of local governments.
Income tax of foreign-invested enterprises	0	O		Tax is collected by industry type; income tax paid by enterprises di- rectly under the central govern- ment, local banks, foreign-invested banks and other non-banking fi- nancial institutes, railway depart- ments, head offices of banks and insurance companies go to the cen- tral government; others belongs to local governments.
Stamp tax		0		Stamp tax on securities transaction (the central government 80%, local governments 20%)
Resource tax			O	Depend upon types of resources, most of resources tax goes to local governments. The resource taxes paid by ocean oil enterprises go to the central government.

 Table 2
 Sources of Foreign-related taxes in China

Data Sources: *China's Foreign-Related Tax System*, compiled by the State Administration of Taxation, <website of the State Administration of Taxation>, March 2, 2006, <http://www.chinatax.gov.cn>

Among the 15 taxes on foreign companies in China, this paper selects and focuses on the VAT. The following is a detailed analysis of China's VAT system. The VAT refers to a kind of circulating tax levied upon the added value gained by the entity or individual for making a sale, provision of processing, repairs and replacement services, or the importation of goods. China's VAT is taxed on the ones who produce the values. The VAT taxpayer is the entity or the person who makes a sale, provides services of processing, repair or replacement or makes an importation into China's territory. The taxed scope refers to the sales of goods, provision of processing, repairs and replacement services, and the importation of goods. The taxpaying enterprises are industrial, business enterprises, importers, enterprises engaged in processing, repairs and replacements. VAT rates have three tiers -- a basic rate of 17%, a low rate of 13%, and a zero rate. The taxpayer's income from selling its goods or provision of taxable services is the tax base. The tax basis for imported goods is the total of stipulated taxable parts. As for the VAT formation, the taxable added-value is the sales income minus the costs of raw materials, auxiliary materials, power, fuel and other intermediaries put into production. Capital inputs, such as fixed assets and intangible assets, should not be deducted, but may be included in the tax base.

After the literature review, it is clear that regional tax rates have a certain effect on site selection by foreign investors. As mentioned earlier, the total amount of VAT will not necessarily be able to be transferred to consumers or end users in the course of business operation entirely and timely. Therefore, an increase in the VAT will add to operation costs and will be negative to business operation and expansion. Furthermore, it will become an important factor influencing foreign investors' site selection. Given that China's taxation system underwent an overall reform in 1994 and that National Bureau of Statistics data did not itemize the tax payment by the three types of foreign-invested enterprises before 1999, this paper only focuses on the panel data of the six years from 2000 to 2005 in the China Statistical Yearbook to examine the relationship between VAT rates and foreign investment in each region and to compute the VAT paid (including VAT, sales tax and surcharges) by the foreign-invested enterprises on earned profit per yuan (difference between sales and costs). The formula is as follows:

$$TAX = (VAT + STEC)/(SR - CS)$$
(1)

As in the (1), *TAX* refers to the VAT rate on a foreign enterprise's profit per yuan; *VAT* refers to value-added tax payable in this year; *STEC* means sales tax and extra charges; SR is sales revenues, and *CS* stands for cost of sales.

Results from using the formula (1) to calculate VAT rates on foreign-invested enterprises from 2000-2005 in China's 31 places are listed in Table 3. From table 3, most of the top 15 places with low VAT rates are located in the east region, where there are clusters of foreign investments, (e.g. Tianjin, Guangdong, Beijing, Fijian, Shanghai, Zhejiang, Hainan etc). These are followed by those in the west region (Qinghai, Xinjiang, Sichuan, Shaanxi, Yunnan, etc.). Places which topped the lists of low VAT rates for six consecutive years in 2000 to 2005 include Qinghai, Xinjiang, Tianjin, Guangdong, Beijing, Fujian, Sichuan, Shanghai and Zhejiang. This indicates that the areas levying lower VAT rates are either in the east region, which opened wider, with fierce competition, and more FDI, or in the west region, which is characterized by a belated opening up, poor economic development and investment conditions, and less involvement of foreign investors. No clear significant implications can be interpreted from the ranking of places in the central region in table 3.

Year						
Regional	2000	2001	2002	2003	2004	2005
Beijing	0.174(26)	0.228(18)	0.197(23)	0.206(21)	0.185(21)	0.200(22)
Tianjin	0.166(27)	0.222(21)	0.159(29)	0.174(27)	0.130(29)	0.162(30)
Hebei	0.259(12)	0.260(15)	0.261(10)	0.242(9)	0.240(10)	0.268(13)
Shanxi	0.324(5)	0.390(3)	0.327(2)	0.289(3)	0.308(6)	0.344(4)
Inner Mongolia	0.195(24)	0.193(28)	0.152(30)	0.146(30)	0.112(30)	0.273(12)
Liaoning	0.248(14)	0.256(16)	0.214(19)	0.221(15)	0.173(23)	0.224(19)
Jilin	0.369(2)	0.401(2)	0.374(1)	0.340(1)	0.405(1)	0.579(2)
Heilongjiang	0.273(10)	0.344(4)	0.301(5)	0.263(5)	0.331(3)	0.301(6)
Shanghai	0.207(21)	0.201(26)	0.205(21)	0.197(23)	0.159(26)	0.172(28)
Jiangsu	0.274(9)	0.268(14)	0.202(22)	0.185(25)	0.174(22)	0.164(29)
Zhejiang	0.233(18)	0.221(22)	0.208(20)	0.211(19)	0.167(24)	0.188(24)
Anhui	0.302(6)	0.313(7)	0.306(4)	0.263(6)	0.230(11)	0.244(16)
Fujian	0.224(19)	0.226(19)	0.183(26)	0.169(28)	0.141(27)	0.176(27)
Jiangxi	0.242(17)	0.282(11)	0.251(12)	0.239(10)	0.312(5)	0.245(14)
Shandong	0.271(11)	0.319(6)	0.249(13)	0.225(13)	0.211(15)	0.232(18)
Henan	0.243(16)	0.273(13)	0.267(7)	0.231(12)	0.277(7)	0.282(9)
Hubei	0.328(4)	0.285(10)	0.273(6)	0.260(7)	0.204(16)	0.274(11)
Hunan	0.258(13)	0.292(9)	0.259(11)	0.234(11)	0.194(18)	0.221(20)
Guangdong	0.179(25)	0.195(27)	0.189(24)	0.182(26)	0.138(28)	0.185(25)
Guangxi	0.296(7)	0.282(12)	0.267(8)	0.283(4)	0.247(9)	0.284(7)
Hainan	0.166(28)	0.202(25)	0.235(15)	0.214(16)	0.222(13)	0.198(23)
Chongqing	0.353(3)	0.344(5)	0.325(3)	0.318(2)	0.295(7)	0.363(3)
Sichuan	0.201(22)	0.219(24)	0.228(16)	0.214(18)	0.214(14)	0.221(21)
Guizhou	0.200(23)	0.224(20)	0.179(27)	0.157(29)	0.321(4)	0.303(5)
Yunnan	0.245(15)	0.235(17)	0.226(17)	0.253(8)	0.194(19)	0.284(8)
Tibet	0(31)	0(31)	0(31)	0(31)	0(31)	0.243(17)
Shaanxi	0.217(20)	0.220(23)	0.226(18)	0.222(14)	0.164(25)	0.245(15)
Gansu	0.281(8)	0.305(8)	0.249(14)	0.207(20)	0.353(2)	0.581(1)
Qinghai	0.159(29)	0.152(30)	0.176(28)	0.214(17)	0.194(20)	0.117(31)
Ningxia	0.425(1)	0.402(1)	0.266(9)	0.200(22)	0.204(17)	0.179(26)
Xinjiang	0.135(30)	0.193(29)	0.186(25)	0.194(24)	0.224(12)	0.277(10)

 Table 3
 VAT on Foreign-invested Enterprises in 31 Chinese Places

Sources: Author collect data from China Statistical Yearbook published in 2001 to 2006. Please refer to China Statistical Yearbook 2001 to China Statistical Yearbook 2006, compiled by National Bureau of Statistics of China.

Notes:

The 4th digit after the decimal point is rounded off.
 Ranking the of VAT rates in the year is in the parenthesis.

3. No VAT rates and other surcharge figures were available for Tibet Autonomous Region before 2004; therefore the VAT is given zero.

Finally, a cross-analysis of table 1 and table 3 shows that places with lower VAT rates (e.g. Tianjin, Guangdong, Beijing, Fujian, Shanghai, Zhejiang, Sichuan) rank higher in FDI attractions. Does it imply that lower VAT rates will lead to a higher investment willingness by foreign investors? This paper will try to answer this question.

IV. Research Method and Variables

According to the literature review, factors that influence site selection by foreign investors in China can be summarized as VAT rates, the industrial structure, governmental efficiency, average work wage, roads per square kilometer, accumulated FDI, the share of imports and exports in GDP, and time trend. These are all the variables adopted in the paper's empirical model.

As the variable of governmental efficiency is not available after 2003, this paper will use the available ones in the four years from 2000 to 2003. Since the observation spots are plenty and the time span is short, the use of a fixed-effect model that takes into account differences in regional characteristics may give rise to the problem of multicollinearity and result in poor regression analysis. In the study s by Thomas Hyclak, the study by Ying-chai Liu and Jr-tsung Huang, and the study by Anbang Kao, Jr-tsung Huang and Junnan Pan, the problem in model selection and that in this paper are the same. Therefore, this study will use a simpler model, OLS, to join regional dummy variables. The formula is as follows:

$$\log(FDI)_{i,t} = \beta_{0} + \beta_{1} \log(WAGE)_{i,t-1} + \beta_{2} \log(ROAD)_{i,t-1} + \beta_{3} \log(AFDI)_{i,t-1} + \beta_{4}EMIM_{i,t-1} + \beta_{5}SOE_{i,t-1} + \beta_{6}STD_{i,t-1} + \beta_{7}SECOND_{i,t-1} + \beta_{8}THIRD_{i,t-1} + \beta_{9}TAX_{i,t-1} + \sum_{k=1}^{2} \gamma_{k}AREA_{i,k} + \sum_{j=1}^{3} \alpha_{J}D_{i,j} + \varepsilon_{i,j}$$

In the formula, $FDI_{i,t}$ means the FDI with logarithms in the *i* place at time t, while i could be 1, 2, 3, down to 31 and t is 2000, 2001, 2002 or 2003. Also, $WAGE_{i,t-1}$, $Road_{i,t-1}$ and $AFDI_{i,t}$ represent the average worker salary, road per square kilometer, the accumulated actual FDI in the *i* region at t-1 time frame. The three variables all take the logarithm form in the empirical model. EXIM represents the shares of imports and exports over GDP. SOE represents the share of the state-owned enterprises' output over the entire industrial output. STD stands for government efficiency. SECOND and THIRD refer to the secondary and tertiary industries' share of GDP. TAX represents VAT rates on foreign-invested enterprises in the place. All the variables here are computed by their values in the immediate next time period to avoid the problems of causality and endogeneity. In addition, after taking the entire region as the sample, this paper adds a regional dummy variable (AREA) with three values representing east, central, and west regions to test whether regional characteristics will significantly alter the inflow of foreign investments. Furthermore, the paper predicts that foreign investment may show a trend over a certain period of time. Thus, the paper adds a time dummy variable, D, with three of it to represent 2001, 2002 or 2003 (2000 as the base line), to control FDI fluctuations resultant from change of time-related factors (e.g. cyclic ups and downs). Table 4 lists the definitions of all the variables and basic statistic measures and influences on FDI by region.

Cross-examination of the variables and FDI amounts lead to the following results. First, when *TAX*, or VAT rates, on foreigninvested enterprises are lower in one area, foreign investors will have lower operation costs and larger revenue. The paper thus believes that VAT rates in a place have a negative effect on FDI. Namely, if an area has lower VAT rates, *ceteris paribus*, it is more attractive to foreign investors and the place might see higher FDI.

Table	4	Definition, Basic S	Statistic	Measu	ires, an	d Impa	acts	
Variable		Definition		mean (star	dard error)		Im-	
, and the second		Dermition	2000	2001	2002	2002	nacts	L

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Variable	Definition		Im-			
Variable	Definition	2000	2001	2002	2003	pacts
FDI _t	actual FDI (100 million yuan) of the	30.20	34.63	39.75	39.47	
FDIt	year	(54.47)	(59.30)	(66.44)	(61.02)	
TAX _{t-1}	regional tax rates on foreign enter-	0.25	0.24	0.26	0.23	
IAA _{t-1}	prises in the preceding year	(0.09)	(0.08)	(0.08)	(0.07)	_
STD _{t-1}	governmental efficiency in the pre-	0.00	0.00	0.00	0.00	+
SID _{t-1}	ceding year	(0.21)	(0.19)	(0.23)	(0.27)	Ŧ
WAGE _{t-1}	average worker wage in the previous	2664.81	2998.15	3537.62	4109.05	9
WAGE _{t-1}	year (yuan)	(1986.20)	(2306.51)	(3020.54)	(3918.10)	1
ROAD _{t-1}	road per square kilometer in the per-	0.01	0.01	0.02	0.02	+
KOAD _{t-1}	vious year (kilometer)	(0.01)	(0.01)	(0.02)	(0.02)	T
AFDI _{t-1}	The accumulated FDI from 1985 to	406.24	460.58	495.21	534.96	?
AFDIt-1	the previous year (100 million yuan)	(715.50)	(820.88)	(879.53)	(942.04)	:
EXIM _{t-1}	imports & exports over GDP in the	0.23	0.27	0.13	0.28	+
LAINIt-1	previous year (%)	(0.30)	(0.34)	(0.18)	(0.36)	Ŧ
SOE _{t-1}	SOE output in total industrial output	0.65	0.63	0.61	0.58	
SOL _{t-1}	in the previous year (%)	(0.19)	(0.19)	(0.19)	(0.19)	
SECOND _{t-1}	Secondary sector share in GDP in	43.13	43.72	43.46	43.83	+
SECOND _{t-1}	the previous years	(7.63)	(7.88)	(7.71)	(7.98)	Ŧ
THIRD _{t-1}	tertiary sector share in GDP in the	37.69	38.43	39.59	39.97	+
I HIKD _{t-1}	previous year	(5.83)	(5.74)	(5.85)	(6.34)	Ŧ
EAST	1 is assigned to a place in the east	0.39	0.39	0.39	0.39	
EAST	region, others, zero.	(0.49)	(0.49)	(0.49)	(0.49)	+
CENTRAL	1 is assigned to a place in the central	0.29	0.29	0.29	0.29	
CENTRAL	region, others, zero.	(0.45)	(0.45)	(0.45)	(0.45)	+
D01	1 is assigned to the year 2001, other	0.00	1.00	0.00	0.00	
D01	years, zero.	n yuan) of the (54.47) 30.20 (54.47) 34.63 (59.30) 39.75 (66.44)foreign enter- (year 0.25 (0.09) 0.24 (0.08) 0.26 (0.08)cy under 0.00 (0.21) 0.00 (0.19) 0.00 (0.23)n the previous 2664.81 (1986.20) 2998.15 (2306.51) 3537.62 (3020.54)ter in the per- (0.01) 0.01 (0.01) 0.02 (0.02)from 1985 to (1986.20) 406.24 (820.88) 460.58 (879.53)r GDP in the (0.19) 0.23 (0.30) 0.27 (0.34)ustrial output (0.19) 0.65 (0.19) 0.63 (0.19)o GDP in the (0.19) 0.72 (0.43) (7.71) (0.19)n GDP in the (5.83) (5.74) (5.85) (5.85) (5.83)r In the east (0.39) 0.39 (0.49) 0.39 (0.49)in the central (0.45) 0.29 (0.45) 0.29 (0.45)u 2001, other (0.00) 0.00 (0.00) 0.00 (0.00)	(0.00)	+		
DO2	1 is assigned to the year 2002, other	0.00	0.00	1.00	0.00	
D02	years, zero	(0.00)	(0.00)	(0.00)	(0.00)	+
D03	1 is assigned to the year 2003, other	0.00	0.00	0.00	1.00	1
003	years, zero.	(0.00)	(0.00)	(0.00)	(0.00)	+

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Sources: Authors collect data from *China Statistical Yearbook* 2001-2004, Almanac of China's Economy 2001-2004 and China Environment Yearbook 2001-2004. Please refer to China Statistical Yearbook 2001 to China Statistical Yearbook 2004, by National Bureau of Statistics of China (Beijing: China Statistics Press, 2001-2004); Almanac of China's Economy 2001 to Almanac of China's Economy 2004, by National Bureau of Statistics of China Environment Yearbook 2001 to China Environment Yearbook 2004, by National Bureau of Statistics of China Environment Yearbook 2004, by National Bureau of Statistics of China Environment Yearbook 2004, by National Bureau of Statistics of China Environment Yearbook 2004, by National Bureau of Statistics of China (Beijing: China Statistics Press, 2001-2004).

Notes: 1. Except FDI, all variables are the values of the previous years..

- 2. All variables are deflated using the price level of 1985.
- 3. The value of governmental efficiency is standardized, so its average is zero.
- 4. The taile of go terminate entering is standardized, so its tradge is how 4. The east region includes Beijing City, Tianjin City, Hebei Province, Liaoning Province, Shanghai City, Jiangsu Province, Zhejiang Province, Fujian Province, Shandong Province, Guangdong Province, Guangxi Autonomous Region and Hainan Province; the central region includes Shanxi Province, Inner Mongolia Autonomous Region, Jilin Province, Heilongjiang Province, Anhui Province, Jiangxi Province, Henan Province, Hubei Province and Hunan Province. The west region includes the others.

Second, regarding the definition and computation of a local government's efficiency (*STD*), this paper uses the study by Jr-tsung Huang, An-bang Kao and Jun-nan Pan. Better government efficiency in a place means for foreign investors not only lower tangible and intangible costs, but also greater benefits from such efficiency. Therefore, this paper believes that governmental efficiency has a positive effect on attracting FDI. Actual average wage (*WAGE*) carries two effects to foreign investors. One is cost effect and the other is a purchasing power effect. Export-oriented foreign companies tend to seek cheap labor; the lower the wage, the more FDI is attracted. On the other hand, high wages for workers means high purchasing power of these consumers. High wages in a region will attract foreign investors targeting local consumption. In sum, the influence of actual average wage on FDI inflow is inconclusive.

The paper uses roads per square kilometer (*ROAD*) as an indicator of infrastructure development, which, in the authors' view, is positive for FDI. Before opening-up, China had little public information and a poor investment climate. Therefore, many used the foreign investment already in the region as an indicator of the attraction for future investments. This paper adopts the accumulated amount of actual FDI (*AFDI*) as a variable to show the agglomeration effect. Nevertheless, the accumulated FDI also means competition pressure in an area for newcomers. This variable's influence is also not conclusive.

The share of imports and exports in GDP (*EXIM*) and that of SOEs' output in overall industrial output (*SOE*) represent the level of regional opening and market protection. Larger imports and exports mean a higher degree of opening, which may attract more FDI. China's SOEs are either monopolistic or protected by the government through distorted resource allocation, and deliberate protection results in a stereotyped image of corruption, conservativeness and inefficiency,

which would thwart foreign investors who embrace market competition. Namely, a higher proportion of SOEs in an area means a higher degree of market protection there, meaning more hurdles for FDI and lower attraction. The industrial structure in a region explains its industrial strength, resources availability, and hot investment sectors. When an increasing number of foreign investors are eyeing the domestic market, the region's industrial structure is also a major variable. According to the theory of economic development, the higher share of secondary and tertiary sectors within GDP (*SECOND*, *THIRD*) means a more developed economy, thus attracting more foreign investment.

As Table 1 shows, the east region ranks No. 1 in attracting foreign investment, followed by the central region, and finally the west region. The authors thus predict that the coefficients of dummy variables *EAST* (east region) and *CENTRAL* (central region) will be positive, with the former larger than the latter. The paper further predicts that foreign investment in China will continue to grow, so the coefficients before the time dummy variable, D01 for 2001, D02 for 2002, and D03 for 2003, are positive.

V. Empirical Results

This paper uses panel data for China's 30 provinces and cities (excluding the Tibet Autonomous Region) from 2001 to 2003 in the *China Statistical Yearbook*, and employs the OLS method to examine the relationship between local VAT rates and foreign investment. Furthermore, the degree of influence of VAT rates on foreign investment is studied by region, namely, the east, central and west regions. The results of the formula (2) are listed in table 5.

.290 0.72) 0.587 0.23) 0.384 0.47) 256***	East Region 8.06 (1.07) -1.56 (-0.49) -0.79 (-0.75)	Central Region -9.53 (-1.26) -0.26 (-0.11) 1.87*	West Region 72.18* (1.91) -6.90* (-1.95) -8.38*
0.72) 0.587 0.23) 0.384 0.47) 56***	(1.07) -1.56 (-0.49) -0.79 (-0.75)	(-1.26) -0.26 (-0.11) 1.87*	(1.91) -6.90* (-1.95)
0.587 0.23) 0.384 0.47) 56***	-1.56 (-0.49) -0.79 (-0.75)	-0.26 (-0.11) 1.87*	-6.90* (-1.95)
0.23) 0.384 0.47) 56***	(-0.49) -0.79 (-0.75)	(-0.11) 1.87*	(-1.95)
0.384 0.47) 256***	-0.79 (-0.75)	1.87*	
0.47) 56***	(-0.75)		-8.38*
56***		(1.00)	
		(1.88)	(-1.90)
2 67)	0.13	0.36	0.86***
3.67)	(0.30)	(1.00)	(3.70)
.149*	-0.13***	0.02	0.04
1.74)	(-3.38)	(0.21)	(0.33)
.140	0.68*	-0.28	3.27
0.24)	(1.98)	(-0.71)	(0.45)
413**	-0.76	-3.90**	-10.59***
2.09)	(-0.68)	(-2.24)	(-4.23)
.001	3×10-4	4×10-4	4.55*
1.54)	(0.51)	(0.62)	(1.70)
033**	0.06***	0.01	0.21**
2.39)	(4.21)	(0.582)	(2.37)
0.010	0.01	0.01	-0.14
0.34)	(0.30)	(0.31)	(-0.85)
74***	_	_	
5.15)			
68***	_	_	
5.18)			
.280	0.52	-0.16	1.55
0.84)	(0.29)	(-0.85)	(1.18)
.336	0.42	-0.44	3.23
0.77)	(1.28)	(-1.21)	(1.45)
	0.25	-0.87*	3.03
			(1.14)
	48	53	36
	-		0.58
			0.35
			2.60**
19***			82.45***
	0.138 0.29) 120 0.77 0.74 .19***	0.138 0.25 0.29) (0.74) 120 48 0.77 0.78 0.74 0.71 19*** 10.56***	0.138 0.25 -0.87* 0.29) (0.74) (-1.94) 120 48 53 0.77 0.78 0.84 0.74 0.71 0.79

Table 5Regression Results

Notes: 1. Signs *** , ** and * represent significance below 1%, 5% and 10%, and null value is 0.

2. The value in the parenthesis is t statistic.

To further verify the accuracy and robustness of the study, the authors have done homoskedasticity and multicollinearity tests. The four estimates of the formula (2) are thus tested and results are listed in table 5. As indicated by table 5, when estimates are put under H_0 test to see whether co-efficiencies are zero, F measures of the estimates turn out to be 25.19 (for of all regions), 10.56 (of east region), 17.68 (of central region) and 2.60 (of west region), so null hypothesis is rejected in $\alpha = 0.01$ significant level. In the homoskedasticity test, authors apply the Breusch-Pagan 2 measure and reach the regression analysis results of 315.65, 10.67, 17.75 and 82.45 for the four regions. Under $\alpha = 0.05$ significant level, the result of all regions and the result of the west region show heterroskedasticity. So the estimates of the two models are adjusted by the Halbert White method. Finally, correlation coefficients between any two variables are used to test the existence of multicollinearity. The results are smaller than 0.8, and the authors thus conclude that there is no multicollinearity between any two pairs of variables in the four models. These test results confirm the study to be quite accurate and robust.

We first examine the local VAT rates and the impact on foreign investment attraction. As Table 5 indicates, the estimated coefficients of local VAT rates are negative, but three groups (except the west region) show the null hypothesis on their VAT coefficients to be zero and cannot be rejected. This means that foreign investors, when considering sites in the west region, would consider local VAT rates an important factor in making a decision, since other investment conditions are relatively poor. Foreign investors attach greater weight to the VAT simply to save costs. Thus, one conclusion of this paper is that VAT is an important determinant for foreign investors when considering the west region. Since the Beijing government is wooing investors to develop the west region, the preferential VAT rates for foreign enterprises should be highlighted. Namely, only when VAT rates in the

west region are more preferential than those in the east and central regions do foreign investors consider putting money there. This conclusion is consistent with the proposition in the beginning of this paper, and with the conclusions in other earlier studies that show tax rates on foreign-invested enterprises have an important impact on FDI. However, these VAT rates are not top considerations for foreign investors in the east and central regions.

Among other variables on FDI, average wages, an indicator of production costs as well as consumption power, show significant influence on FDI in the central and west regions. Table 5 shows that foreign investment attaches more importance to the factor of production costs in the west region compared to other regions. It explains the situation that west region lags behind in opening up and economic development, and wages in the region are lower than those in the east region. For the west region, besides lower VAT rates, the lower wages in a region means higher attraction for foreign investment. Foreign investors in the central region, like Anhui, Jiangxi, Henan and Hubei provinces, mainly look at the advantageous geographic convenience of the sites to penetrate into the entire China domestic market. Therefore, higher wages in the central region mean a more highly developed economy and stronger purchasing power, which is more attractive to foreign investors.

In regional competition, companies have to meet fierce competition by maximizing profits and minimizing production costs. The quality and quantity of a host country's infrastructure undoubtedly has an effect on foreign investors' willingness. The results in table 5 show that when all other factors are stable, infrastructure is a significant positive factor to attract FDI. Namely, a region with better infrastructure will attract more foreign investment. The result also explains the situations in the west region. Unlike the east and central regions offering sound investment climates, the west region is underdeveloped in infrastructure, as Qinghai and Xinjiang are particularly troubled by mountains and treacherous terrains. In addition, the government has had in place many preferential policies favorable for the east region to attract foreign investment. Should foreign investors consider the west region, they would put great weight on local infrastructure development.

A region's existing accumulated FDI adds to its attraction for more FDI. Table 5 shows a snow-ball effect in which greater FDI brings in more FDI in China as an entire market. However, the data also shows a threshold effect for FDI growth in east region. In high FDI areas, foreign investors might be concerned with market competition pressures and switch to other areas, which explains why foreign investors have moved inland in recent years. The main reason is that in the east region, high concentration of foreign investment is translated into enormous competition pressure. Therefore, the accumulated FDI in the region is a main factor for foreign investors in site selection elsewhere.

Table 5 shows that the degree of opening up is positively related to attracting foreign investment, but this is an effect only obvious in the export-oriented east region. The result shows that foreign investors, when considering a site in the east region, will use the percentage of imports and exports in a region's GDP in deciding whether to invest in a particular site. If the percentage is higher, this means a higher degree of opening up, which is more favorable for exportoriented investors. On the other hand, a high degree of market protection, represented by the share of SOEs' output over entire industrial output in a given area, means low FDI. In sum, a larger share of SOE output in the GDP indicates reduced market competition and more unfairness, thus thwarting foreign investors. Such a negative effect

is conclusive in all-China region, the central region and the west region.

As for government efficiency, Table 5 indicates that only in the west region does local governmental efficiency as a variable has a significant positive effect on the amount of FDI. That is to say, a higher local governmental efficiency in the west region can boost foreign investor willingness and attract more investment. Foreign companies attach more importance to local governmental efficiency in the west region than in other regions because the west region lags behind in opening up and information access. In sum, compared to other regions, foreign investors consider government efficiency a major factor in site selections in the west region. Except for the central region, the secondary industry's output in GDP in every other region has a significant positive relationship with FDI input. In the research process, the authors consider that China's tertiary industry remained still very under-developed, attracting little foreign investment. Therefore, the percentage of tertiary industry over a region's GDP has no significant effect in attracting FDI.

With the data of an entire region serving as a comparison base, the east region ranks first in attracting foreign investment, followed by the central region and the west region. This is due to the fact that provinces and cities in the east and central regions have geographic advantages in achieving larger market penetration, and thus are more favored by foreign companies than areas in the west region. Particularly, the east region is the most favored investment place for foreigners due its relatively advanced economic development, compared to the central and west regions. As for the time factor, foreign investment inflow in recent years does not show a significant disparity by the year. Except in the central region, the amount of FDI in 2003 is relatively higher than in other years.

VI. Conclusions and Suggestions

This paper aims to study the relationship of China's regional VAT rates on foreign investment attraction. The paper first reviews the prevailing VAT rates on foreign investments and past and present FDI in various regions. Then, the authors analyze the official panel data of 30 provinces and cities 2000-2003, and adopt the OLS model. After controlling sample homoskedasticity and eliminating problems relating to econometrics, the paper finds that VAT rates on foreign-invested enterprises have a negative effect on attracting foreign investment, which is particularly significant in the west region.

In addition, taking the entire China as one sample, roads per square kilometer, the accumulated FDI, the SOEs' output over the region's GDP, and the percentage of the secondary industry in its GDP usually have a significant impact on FDI in the area. If China is divided into the east, central and west regions for comparison, the findings are that factors affecting foreign investors'site selections vary significantly by region. In the east region, major factors weighed by foreigners are accumulated FDI, the percentage of imports and exports over GDP (an indicator of the level of opening-up), and the percentage of secondary industry's output over GDP. In the central region, foreigners gave higher consideration to actual worker wages (an indicator of consumption ability), the SOEs' output share in total industrial output, and the time dummy variable of 2003. In the west region, major factors affecting foreign investment decisions are VAT rates, average worker wages, road per square kilometer (an indicat or of local infrastructure development), secondary industry's share in GDP, and SOEs' output over the total industrial output (an indicator of the degree of market protection).

Since China initiated reform and opening up, its GDP growth has been maintained at 8% per annum in recent years. Its striking economic performance has become the focus of global attention. The year 2004 was the most brilliant and critical year in the history of China's trade development, registering an annul trade of US\$1.1 trillion, overtaking Japan to become the world's third largest trading country, trailing the United States and Germany. US-based Goldman Sachs gave a bold prediction of the rise of Brazil, Russia, India and China, namely the BRICs. It predicts a serious reshuffling of economic superpowers in the future, with China becoming an important destination for foreign capital and hot money. Goldman Sachs went a step further to foresee China's GDP will rank first in Asia in 11 years and supersede the United States in 2041 to become a new economic superpower in the world.

In the very early stage of economic opening-up, Deng Xiaoping once remarked that "allow some people to get rich first, and allow some regions to become rich first." Thus, the Beijing government adopted a regional economic development policy, with preferential policies for coastal region thriving by leaps and bounds. On the other hand, China's inland regions remain largely backward, resulting in great regional economic imbalances in China. This imbalance is widening and worsening along with its overall economic expansion, as indicated in a study by Jr-tsung Huang, et al.

In the face of fierce competition, China must have in place a very attractive foreign investment policy. How to introduce a large amount of foreign capital into the west region is a serious challenge. To make the west region attractive to foreign investors, it is very important to foster a sound investment environment. In addition to hardware construction, the soft environment also plays an important role. Regional VAT on foreign-invested enterprises is a major consideration for foreign investors there. The policy of Great Development of the West Region kicked off in 1998 with numerous preferential policies in place. But, relatively lackluster attractions fail to woo foreigners, and foreign investments just drizzled in.

The paper's finding indicates that in the west region, tax credits are a strong catalyst for FDI, and VAT rates are a major factor for foreign investors in site decisions in this region. When China is pushing the policy of Great Development of the West Region and luring foreign investments into the region, a reduction in VAT rates can double its attraction to foreign investment than in east or central regions. By doing so, imbalance in regional economic development and widening income disparities could be addressed as well. This could furthermore contribute to China's economic growth and expansion in the future. Based upon this paper's finding, tax rates and credits play a determinant factor in foreigners' investment feasibility studies. This conclusion is also of good reference value for the Taiwan government in policy-making on attracting foreign investment.