

WPS1720

POLICY RESEARCH WORKING PAPER

1720

The Distribution of Foreign Direct Investment in China

Harry G. Broadman
Xiaolun Sun

The geographical distribution of foreign direct investment (FDI) within China is determined mostly by GNP, infrastructure development, level of general education, and coastal location. In the past, FDI has been biased toward speculative investment, especially the real estate sector; recently this bias has become less pronounced.

The World Bank
China and Mongolia Department
Country Operations Division
February 1997



Summary findings

Foreign direct investment (FDI) has played a major role in China's push toward a market-oriented economy.

As part of the first phase of reforms that began in 1978, the Chinese government experimented with preferential policies to attract foreign capital. Between 1978 and 1995, China received \$128 billion in FDI. Recent inflows account for 40 percent of combined flows of FDI to all developing countries, making China the biggest developing country FDI recipient.

This record is impressive, but certain problems must be overcome if FDI is to continue to help sustain the country's record growth rate and further its economic development.

For one thing, FDI in China is highly concentrated geographically, and its sectoral distribution is highly uneven. Broadman and Sun empirically analyze the geographic determinants of FDI in China.

They find that FDI's geographical distribution in China is determined mostly by GNP, infrastructure development, level of general education, and coastal location.

Although the sectoral distribution of FDI is coming into line with the rest of the world — indeed, moving toward the pattern in more developed countries — in the past, FDI has been biased toward speculative types of investment, especially the real estate sector.

This paper is a product of the Country Operations Division, China & Mongolia Department. Copies of this paper are available free from the World Bank, 1818 H Street NW, Washington DC 20433-0001. Please contact Ms. Joan Grigsby, room MC8-238, telephone 202-458-2423, fax 202-522-1556, internet address jgrigsby@worldbank.org. February 1997. (20 pages)

The Policy Research Working Paper Series disseminates the findings of work in progress to encourage the exchange of ideas about development issues. An objective of the series is to get the findings out quickly, even if the presentations are less than fully polished. The papers carry the names of the authors and should be cited accordingly. The findings, interpretations, and conclusions expressed in this paper are entirely those of the authors. They do not necessarily represent the view of the World Bank, its Executive Directors, or the countries they represent.

Policy Research Working Paper

THE DISTRIBUTION OF FOREIGN DIRECT INVESTMENT IN CHINA

Harry G. Broadman

Xiaolun Sun

**The World Bank
China & Mongolia Department
Country Operations Division**

Harry G. Broadman is Senior Economist in the World Bank's China and Mongolia Department, East Asia and Pacific Regional Office.

At the time this paper was written, Xiaolun Sun was an intern in the World Bank's China and Mongolia Department, East Asia and Pacific Regional Office.

I. INTRODUCTION

Foreign direct investment (FDI) has played a major role in China's push towards a market-oriented economy. From the advent of reform in 1978 to 1995 China has received \$128.1 billion in FDI. Recent FDI inflows to China account for 40 percent of such flows to all developing countries combined. Indeed, today China is the largest developing country recipient of FDI. But while China's record in attracting foreign capital in the past decade has been impressive, potential problems exist. These present the Chinese authorities with challenges to overcome if FDI is to continue to help sustain the country's record growth rate and further its economic development.

First, the pattern of FDI in China is highly *geographically* concentrated. Of the total amount of FDI that China has received since 1989, the coastal areas' share has been over 90 percent. In contrast, the inland provinces, which are considerably less developed and poorer, and in greater need of capital investment, have not played host to FDI to any significant degree. In part, this outcome is probably the result of an absence of incentives offered by the government to foreign investors outside certain areas. Within the context of opening the economy, the earliest reform experiments focused on developing four initial Special Economic Zones (SEZs)¹, which have embodied preferential tax policies to attract foreign capital and technology and promote exports. Subsequently, the government designated fourteen open coastal cities² and development zones.³ But as international experience shows, such incentives only marginally affect FDI decisions.⁴ More important, the geographic concentration of FDI is likely due to the fact that the inland regions have inadequate or undeveloped infrastructure networks and facilities, which, among other factors, tend to play an important role in foreign investors' location decisions worldwide. It is apparent that the unevenness in the geographical distribution of FDI is contributing to the skewed pattern of the country's regional growth as well as other discrepancies between regions.

Equally important is that the *sectoral* composition of FDI within China is uneven. The lion's share of FDI has been concentrated in the real estate sector, especially hotels and other tourism-related projects. The accumulation of FDI has been smaller in manufacturing. There has also been a relatively low level of FDI in the high value-added services sectors, many of which, such as telecommunications and informatics, banking and insurance, accounting and auditing, legal services, and computer processing and software design, are critical building blocks for the development of a modern industrial Chinese economy. These services sectors are also increasingly important in their own right for China's continued economic development, particularly as international trade in services flourishes under the WTO.⁵ Like many countries, China has sectoral limitations regarding FDI, with some sectors being wholly "negatively listed"; in other cases where FDI is allowed, there are restrictions as to the level or nature of FDI. Such limitations and restrictions play a role in explaining the uneven sectoral pattern of Chinese FDI, and the government recognizes that they contribute to the country's already severe interior bottleneck problems.

¹ Shenzhen, Zhuhai, Shantou, and Xiamen.

² From north to south: Dalian, Qinhuangdao, Tianjin, Yantai, Qingdao, Lianyungang, Nantong, Shanghai, Ningbo, Wenzhou, Fuzhou, Guangzhou, Zhanjiang, and Beihai.

³ Hainan Special Economic Zone and the Pudong New Area in Shanghai.

⁴ See, for example, Caves (1982); Wells (1986); Mintz (1990)

⁵ See Broadman (1994).

Although much has been written describing China's overall achievement in attracting foreign investment and the general pattern of Chinese FDI, little work has been done analyzing quantitatively the geographical and sectoral attributes of such investment. This paper thus attempts to assess empirically the locational and sectoral determinants of FDI within China. Shedding light on these determinants is an important policy issue for the Chinese authorities. Within the past year they have begun to rationalize the regime governing FDI flows, with an eye towards reducing various distortions, especially the system of FDI tax preferences.⁶

In Section II, we present an overview of the recent trend in the flow and stock of Chinese FDI, placing it in the worldwide and regional contexts. Section III focuses on the geographical distribution of FDI within China and develops a simple econometric model of its locational determinants. In Section IV the sectoral pattern of Chinese FDI is analyzed and compared with that of other countries. Conclusions and policy observations are contained in the last section.

II. CURRENT TRENDS IN FDI

World and Regional Trends

Following rapid increases since the early 1980s, global FDI flows have increased more moderately in recent years. As shown in Tables 1 and 2, average annual total world inflows and outflows of FDI rose about 3.5% and 0.4%, respectively, between 1989-94. This general increase has not been shared by all countries. Flows into and out of industrial economies have either declined or increased slightly, primarily due to recession. But both inflows and outflows of FDI in developing economies rose steadily. These countries now command an increasing portion of world FDI flows.

Table 1: Global FDI Inflows
\$US Millions

	1989		1990		1991		1992		1993		1994	
	Value	(%)	Value	(%)	Value	(%)	Value	(%)	Value	(%)	Value	(%)
World Total	192,361	(100.0)	203,969	(100.0)	158,350	(100.0)	170,398	(100.0)	208,388	(100.0)	225,692	(100.0)
Industrial Economies	166,557	(86.6)	172,524	(84.6)	118,726	(75.0)	111,223	(66.4)	129,073	(62.0)	134,984	(60.0)
Europe	87,985		109,348		81,345		81,655		76,387		73,660	
United States	67,870		45,140		23,972		17,600		41,108		49,448	
Japan	1,060		1,760		1,370		2,720		86		888	
Developing Economies	25,804	(13.4)	31,445	(15.4)	39,624	(25.0)	50,388	(33.6)	73,350	(35.2)	84,441	(37.4)
Africa	2,972		1,121		2,343		2,702		3,000		3,080	
Latin America	6,191		6,937		11,508		13,973		14,980		15,930	
Asia	13,702		18,299		20,373		27,637		49,984		60,664	
East Asia (sum of below)	7,461	(3.9)	11,662	(5.7)	12,508	(7.9)	13,871	(9.3)	16,517	(7.9)	19,600	(8.7)
Indonesia	682		1,093		1,482		1,774		2,004		3,000	
Malaysia	1,668		2,332		4,073		4,118		5,206		4,500	
Philippines	563		530		544		228		763		1,500	
Singapore	2,773		5,263		4,395		5,635		6,829		7,900	
Thailand	1,775		2,444		2,014		2,116		1,715		2,700	
China	3,393	(1.8)	3,487	(1.7)	4,366	(2.8)	11,156	(7.4)	27,515	(13.2)	33,800	(15.0)

Source: IMF BOP Yearbook and UN World Investment Report

⁶ See Broadman (1995b).

Table 2: Global FDI Outflows
\$US Millions

	1989 Value (%)	1990 Value (%)	1991 Value (%)	1992 Value (%)	1993 Value (%)	1994 Value (%)
World Total	217,584 (100.0)	238,448 (100.0)	189,175 (100.0)	180,949 (100.0)	222,171 (100.0)	222,254 (100.0)
Industrial Economies	207,164 (95.2)	228,685 (95.9)	181,896 (96.2)	161,130 (89.0)	192,959 (86.9)	189,280 (85.2)
Europe	123,717	141,700	113,112	103,009	103,693	113,921
United States	29,000	32,690	29,130	34,790	68,978	45,640
Japan	44,160	48,050	30,740	17,240	13,714	17,938
Developing Economies	10,420 (4.8)	9,763 (4.1)	7,279 (3.8)	19,819 (11.0)	29,136 (13.1)	32,907 (14.8)
Africa	892	1412	897	319	843	686
Latin America	950	4,508	1,834	2,259	0	1,900
Asia	8,967	8,363	5,425	16,736	28,315	30,306
East Asia (<i>sum of below</i>)	932 (0.5)	1,492 (0.7)	611 (0.3)	884 (1.0)	988 (1.1)	831 (0.4)
Singapore	882	1,352	444	748	767	653
Thailand	50	140	167	136	221	178
China	780 (0.4)	830 (0.3)	913 (0.5)	4,000 (2.3)	4,400 (2.0)	2,000 (0.9)

Source: IMF BOP Yearbook, UN World Investment Report

Asian developing countries have consistently received the largest percentage of FDI, and they are rapidly becoming a new source of FDI. More than 50 percent of developing country FDI inflows have been to Asia, and about 80 percent of the developing country FDI outflows originates in Asia, especially the newly industrialized economies in the region. Within Asia, some East Asian developing countries are attracting significant amounts of FDI. In particular, China and Vietnam are emerging as major FDI destinations. In recent years, most incremental increases in FDI in East Asia went to China.

The Trend of FDI in China

Foreign direct investment started modestly in China after the passage of the 1979 Law on Joint Ventures. The Law permitted foreign investment and defined equity joint ventures. Still, the legal environment for FDI was not well-defined, and little attention was directed to attracting foreign investors. In 1986 and 1987 more serious attention was given to providing investment incentives. The Provisions for the Encouragement of Foreign Investment were promulgated in October 1986 and their implementing regulations announced over the next year. Partly as a result, FDI flows into China have been growing continuously ever since (Table 3). By 1992 China was receiving almost a quarter of total FDI inflows to developing countries, and today the share is 40 percent. Foreign investment has expanded to become by far the single most important source of external capital for China, surpassing the combination of bilateral development assistance and borrowing commercially and from international organizations.

Table 3: FDI Inflows to China
\$US Millions

	Contracted	Utilized
~1982	6,010	1,166
1983	1,732	636
1984	2,651	1,258
1985	5,932	1,661
1986	2,834	1,874
1987	3,709	2,314
1988	5,297	3,194
1989	5,600	3,392
1990	6,596	3,487
1991	11,977	4,366
1992	58,124	11,007
1993	111,436	27,515
1994	82,680	33,767
1995	91,282	37,521

Source: China Statistical Yearbook, 1996

Chinese statistical authorities categorize FDI projects into five different groups: (i) "equity joint ventures"; (ii) "wholly foreign-owned enterprises"; (iii) "cooperative operations"; (iv) "joint development"; and (v) "other foreign investment" (including imported inputs for processing and assembly). Recent values of the first four categories are in Table 4. Although the equity joint venture has been the most popular form since the mid-1980s, constituting about half of the foreign capital directly invested, growth of wholly foreign-owned enterprises has been the most rapid form in recent years. Joint development ventures pertain mainly to off-shore petroleum exploration. This form of FDI was extremely popular in the early 1980s, but its use has been declining in recent years.

Table 4: Types of FDI in China
\$US Millions

	1989 Value*	1990 Value	1991 Value	1992 Value	1993 Value	1994 Value	1995 Value
Equity Joint Ventures	2,659	2,704	6,080	29,129	55,174	40,194	39,741
Cooperative Operations	1,083	1,254	2,138	13,256	25,500	20,300	17,825
Wholly Foreign-owned Enterprises	1,654	2,444	3,667	15,696	30,457	21,949	33,657
Joint Development	204	194	92	43	30	24	8

Source: China Statistical Yearbooks * Contracted amounts.

It is widely acknowledged that the actual magnitude of China's reported FDI flows is subject to uncertainty. Reported flows are thought to be over-estimated due to over-valuation of capital equipment contributed to joint ventures by foreign investors (the value of which is translated into equity investment and recorded as FDI) and because of "roundtripping" through Hong Kong (and Taiwan, China, to a lesser extent) in part to benefit from preferential tax treatment accorded to foreigners. The World Bank has estimated such factors inflated China's 1994 FDI inflows by about 37 percent.⁷ With recent improvements in Chinese FDI statistical methodologies and reforms of FDI tax preferences (see below), the magnitude of this problem should be reduced. Inasmuch as this study is concerned with the distribution of FDI *within* China, this problem should not materially affect our analysis.

III. THE GEOGRAPHICAL DISTRIBUTION OF FDI IN CHINA

Virtually no study on FDI in China has failed to point out the uneven geographical distribution of foreign capital within the country. The concentration of FDI flows in the east and southeast regions is seen clearly from Table 5. The twelve coastal provinces attracted between 87 and 93 percent of total FDI inflows to China during the 1985-92 period, and their share of FDI has remained above 90 percent since 1989. Among coastal regions, Fujian, Shanghai, Jiangsu and Guangdong have all been hosts to significant amounts of FDI. Guangdong has consistently been the leading coastal destination, and in recent years, the gap between FDI flows into Guangdong and all other provinces has been enlarging.

Table 5: Chinese FDI Inflows by Region
\$US Millions

	1985	1987	1989	1990	1991	1992
Coastal	1,181.42	1,578.44	3,107.03	3,201.33	4,092.21	10,046.50
Guangdong	651.31	736.87	1,252.06	1,582.31	1,942.88	3,701.11
Fujian	118.60	55.35	348.03	348.89	471.16	1,423.64
Jiangsu	33.47	86.35	126.93	133.97	219.22	1,463.24
Beijing	88.82	105.79	320.16	278.95	244.95	349.85
Shanghai	107.54	214.01	422.12	174.01	145.19	493.61
Shandong	35.63	64.97	163.33	185.70	216.39	1,003.42
Liaoning	24.58	90.84	126.14	257.31	362.39	516.42
Hainan			94.97	103.02	176.72	452.55
Tianjin	55.87	133.13	31.42	36.93	132.61	107.78
Zhejiang	26.63	35.76	53.96	49.14	92.29	239.78
Guangxi	30.73	45.05	53.00	35.63	31.85	182.01
Hebei	8.24	10.32	43.73	44.47	56.56	113.09
Inland	136.09	203.75	330.30	234.82	333.71	957.52
Shaanxi	15.55	72.88	97.19	47.31	31.76	45.53
Hubei	8.00	25.99	28.61	31.76	46.64	203.13
Sichuan	28.72	24.27	13.11	24.37	80.91	112.14
Heilongjiang	3.95	14.04	57.36	28.36	20.85	72.17
Hunan	27.28	2.86	23.28	14.15	25.43	132.71
Henan	8.27	13.53	46.06	11.36	37.99	53.16
Jilin	4.87	7.37	9.93	17.60	31.64	75.34
Jiangxi	10.49	5.35	9.23	7.51	19.49	99.72
Anhui	3.03	3.23	8.75	13.54	10.67	54.66
Guizhou	9.87		12.76	10.58	14.09	19.79
Shanxi	0.52	4.90	9.81	3.40	3.80	53.84
Yunnan	1.63	6.33	7.87	7.38	3.51	28.75
Xinjiang	10.91	17.70	0.88	5.37	0.22	
Inner Mongolia	2.00	5.06	4.35	10.64	1.66	5.20
Gansu	0.57	0.21	1.11	1.24	4.87	0.35
Qinghai	0.15					0.68
Ningxia	0.28	0.03		0.25	0.18	0.35
Tibet						
Total	1,317.51	1,782.19	3,437.33	3,436.15	4,425.92	11,004.02

Source: China Statistical Yearbook

⁷ World Debt Tables (1996), p.94.

Table 6 presents the provincial distribution of Chinese FDI on an accumulated, or stock, basis. The FDI gap between the coastal and inland regions becomes even more apparent when accumulated FDI is adjusted for population or geographical size. While the coastal regions attracted over 9 times as much FDI as the inland regions in aggregate terms, they attracted over 12 times as much FDI on a per capita basis, and over 70 times as much FDI per 1000 square meters of land area.

Table 6: Cumulative FDI in China by Region, Year-end 1992
\$US Millions

	Total	Per Capita	Per 1000 Sq Km
Coastal	27,455.99	54.35	25.01
Guangdong	12,051.49	184.70	66.95
Fujian	2,944.64	75.25	24.54
Jiangsu	2,222.45	32.16	22.22
Beijing	2,041.41	185.25	121.51
Shanghai	1,938.55	144.13	323.09
Shandong	1,824.82	21.19	12.17
Liaoning	1,556.41	38.76	10.38
Hainan	944.70	137.71	27.79
Tianjin	610.24	66.33	55.48
Zhejiang	566.12	9.70	5.66
Guangxi	448.38	10.24	1.95
Hebei	306.78	4.89	1.61
Inland	2,838.51	4.30	0.35
Shaanxi	459.11	13.48	2.42
Hubei	378.85	6.79	2.10
Sichuan	355.60	3.23	0.64
Heilongjiang	290.57	8.05	0.63
Hunan	248.30	3.96	1.18
Henan	245.28	2.77	1.53
Jilin	180.66	7.14	1.00
Jiangxi	169.79	5.45	1.06
Anhui	156.94	3.70	1.21
Guizhou	89.08	2.65	0.52
Shanxi	82.94	2.78	0.55
Yunnan	67.53	1.76	0.18
Xinjiang	54.12	3.42	0.03
Inner Mongolia	42.75	1.94	0.04
Gansu	11.97	0.52	0.03
Qinghai	3.53	0.77	
Ningxia	1.46	0.30	0.02
Tibet	0.03	0.01	
Total	30,294.50	25.99	3.33

Source: China Statistical Yearbook

Hypothesis Development

Observers have cited various factors to explain the skewed geographical pattern of FDI within China. Among them, the government's incrementalist approach in implementing the "open-door" policy is reflected in the impressive amount of FDI in the coastal areas as compared to other regions. The autonomy given to certain coastal areas with regard to investment, production and other economic policies is surely another reason why these regions have been particularly attractive to foreign investors. The close geographical proximity and tight cultural and linguistic links between southern China and the overseas Chinese communities in Taiwan, China, Hong Kong and Macao have also directly contributed

to the observed geographical pattern of China's FDI. Still, as abundant as the literature on the geographical distribution of FDI in China is, there lacks a robust empirical analysis of the local determinants of such investment. In short, the relative importance of the various factors that influence the level of FDI in each province has yet to be established.

Our approach to shed light on this issue derives from estimation of an internal norm to assess the determinants of the provincial distribution of FDI in China using a standard location choice model. Against this norm, provincial FDI stocks are compared to determine the past performance and future potential of the provinces.

The Dependent Variable

The dependent variable employed in our model is the accumulated stock of FDI in each province at year-end 1992.⁸

The Explanatory Variables

A large volume of theoretical and empirical literature is devoted to the determinants of the spatial distribution of FDI, usually in the *inter-country* context. This includes, among other approaches, the early Hechsher-Ohlin model, which emphasizes the endowments of capital and labor between countries; the product life cycle model, which regards FDI as a way to capture remaining profits by expanding overseas; and the industrial organization theory of FDI, which focuses on international oligopolistic competition. In the main, the empirical studies, using either cross-country regression analysis or interviews of foreign investors in host countries, generally show that various economic development characteristics (market size, labor costs, etc.) and FDI policy factors (tax incentives, free trade zones, etc.) directly influence the destination of flows of capital across national borders.⁹

In the simple locational decision model used here, we posit that five "locational advantage" factors are important determinants of the attractiveness of a Chinese province as a potential location for FDI. Taken together, these variables represent a province's level of economic development and its overall foreign investment policy environment.

Gross National Product. GNP generally reflects the economic development of a country -- or in our case a province. It reflects a province's potential demand, and thus gives a good estimate of the province's market size. In this regard, GNP usually is an especially important factor for foreign investors seeking to sell as well as produce in a local market. The variable used here is provincial GNP for 1992. Our expectation is that it is positively related to a province's stock of FDI.

Labor costs. Foreign investors generally aim to take advantage of host countries' cheaper factor inputs (relative to their home countries), and the cost of labor is often considered important in this regard. In other words, foreign investors' display sensitivity to inter-country variations in labor costs in making their location decisions. However, the sensitivity of FDI location decisions to *intra-country* labor cost differentials is unlikely to be as pronounced. Indeed, even though the decision to invest in China is no doubt heavily influenced by the country's prevailing low wage rate, once the choice is made to locate an investment in China, finding the cheapest possible labor *within China* may not be an important consideration as wage differentials may not be significant. In fact, it is likely to be the case that observed wage rates (including bonuses and in-kind benefits) do not vary as much between regions within China as within other countries because of China's legacy of central planning, which has tended to homogenize

⁸ Although data on cumulative stocks of FDI are available for more recent years, data constraints on the other variables force us to focus on end-year 1992.

⁹ See, for example, Caves (1982).

wage rates.¹⁰ Thus, while the provinces with higher labor costs can be expected to compete less favorably in their efforts to attract foreign investment, our expectation is that this variable is not likely to yield a strong negative relationship with provincial FDI accumulation. The measure of labor cost we use is the average annual provincial wage of staff and workers in 1992.

Human capital. A host region's labor supply influences foreign investors' location decisions not only in terms of input costs, but also through the quality of the skills of the laborforce--especially if the price mechanism is repressed, as is the case in China's labor markets. All other things equal, locales with highly skilled workers--most easily measured by education levels--would be expected to compete more favorably than others in their FDI attractiveness. In this study, adult illiteracy is taken to represent the extent of basic education of a province's workers. The data are taken from China's Fourth National Population Census in 1990, where the population is classified as illiterate and semi-illiterate. These two classifications are divided by provincial population "up to age 6" and "over age 6" to obtain an illiteracy ratio.

Infrastructure. There is no dispute that the extent of an area's infrastructure development is important in an investor's location choice. Infrastructure of course covers many dimensions, ranging from highways to railroads to telecommunication systems to even institutional development (e.g., extensiveness of business-related services, such as accounting, legal services, etc.). Owing to the difficulty of capturing all these various dimensions in an easily calculable variable, for this study we settled on using as a measure of a province's infrastructure development the total length of transportation routes within the province, calculated as the sum of the length of the (i) railways in operation, (ii) the navigable inland waterways and (iii) the constructed highways in 1992, normalized by provincial geographical size. In effect this variable measures provincial transportation route density. It is expected to be positively related to the level of FDI stock.

Geographical location. As in other countries, another factor that is likely to be an important determinant of the geographical distribution of FDI in China is whether a province has a coastal location and thus in close proximity to major shipping ports. In China, coastal location may also be important because of the government's FDI policy regime--namely that fiscal incentives for foreign investors, such as lower income tax rates and reduced tariffs for imports used in the production of exports, have been heavily slanted in favor of cities along the coast. Although as the empirical literature shows (as noted above) such incentives only marginally affect FDI decisions in other countries, it would be helpful to assess their effects in the Chinese context. But this is impossible in our case given the unavailability of data on the other explanatory variables: SEZs (or other similar tax preference units) are not jurisdictions on which GNP, illiteracy, labor costs and infrastructure development are measured; hence our unit of analysis is the province. We thus use a dummy variable to reflect coastal location; for this variable the twelve coastal provinces take on the value 1, while others 0. This variable is expected to be positively related to a province's FDI accumulation.

The above discussion regarding the determinants of FDI within China on a provincial basis can be summarized by the following equation, with the expected signs under each explanatory variable:

$$FDI = f (GNP, Wage, Infrastructure, Illiteracy, Coastal Location)$$

+ - + - +

¹⁰ To be sure, regional wage differentials within China have become somewhat pronounced with reform, which began in 1978 and has intensified in recent years. Indeed, the "iron rice bowl" or "small society" regimes embodied in Chinese state owned enterprises, which provide cradle-to-grave jobs and a complete package of social benefits for workers, their spouses and other family members, have acted as barriers to labor migration among provinces and allowed the modest (but growing) provincial wage differences to persist. See Hu in Broadman (1996).

Empirical Results

About the Explanatory Variables

Table 7 summarizes the basic statistics of all the explanatory variables, and the correlation between them. Comparing the mean and the standard deviations of these variables, we see that total GNP and transportation route density fluctuate greatly from province to province. Such variation suggests that these factors may be the deciding elements to foreign investors when choosing a destination for projects in China. On the other hand, wage rates and illiteracy ratios are relatively uniform among the various regions. Thus, they are expected to exert less influence in foreign investors' internal location choice.

Table 7: The Explanatory Variables

	GNP	Wage	Transport	Illiteracy	Coastal Location
Basic Statistics					
Mean	82.39	2.72	289.23	21.00	0.41
Std Dev	57.43	0.49	201.64	7.85	0.50
Minimum	7.86	2.15	17.10	10.74	0.00
Maximum	229.35	4.27	933.33	38.55	1.00
Correlation Matrix					
GNP	1.00				
Wage	0.25	1.00			
Transportation	0.37	0.63	1.00		
Illiteracy	-0.39	-0.20	-0.47	1.00	
Coastal Location	0.45	0.55	0.63	-0.46	1.00

Results from the Regression Model

Table 8 reports the basic OLS estimation results. A log-linear relationship is assumed between total FDI stock and its determinants; therefore, the coefficient estimates reported here are elasticity measurements. Two sets of regression results are reported. The first model--Model I--includes labor cost as an explanatory variable. The coefficient estimate for this variable shows that it is both of the wrong sign and statistically insignificant. The exclusion of this variable--in Model II--lowers the standard error of regression and brings more explanatory power.

Table 8: Estimation Results

	I		II	
	Coefficient	t-statistics	Coefficient	t-statistics
Constant	-1.335	-0.131	-0.432	-0.273
GNP	0.987	3.942	0.984	4.060
Wage	0.114	0.090		
Transportation	0.457	1.831	0.456	1.870
Illiteracy	-0.051	-1.944	-0.051	-1.984
Coastal Dummy	1.315	2.647	1.339	3.258
Standard Error		0.867		0.849
Adjusted R ²		0.808		0.816

All the reported coefficient estimates in Model II bear the expected sign and are statistically significant at the 10 percent or above confidence level (except the intercept). More than 80 percent of the variation in provincial FDI stocks in China can be explained linearly by the variations in the four independent variables. For a cross-section analysis such as this one, an adjusted R-square of 82 percent is considered high.

The total GNP level is one of the most important factors in foreign investors' location choice in China. The coefficient estimate for this variable results in the highest statistical significance among our explanatory variables. A one percent increase in the market size of a host province brings about nearly one percentage point more FDI into the region. This outcome is consistent with previous cross-country studies on FDI destination.

The results also confirm our expectation that FDI in China goes to where there is greater development of basic infrastructure; the extensiveness of transportation facilities is shown to have a significantly positive effect on the location of FDI. A one percent increase in transportation route density is associated with a 0.46 percent increase in provincial FDI accumulation.

Adult literacy has a small, nonetheless significant, positive effect on the destination of FDI in China. As we noted above, when the cost of labor is relatively insignificant (as is the case in China, where wage rates vary little from region to region), the quality of the labor force is expected to have an impact on foreign investor's FDI location decision. A one percent decrease in the adult illiteracy ratio is shown to be associated with a 0.05 percentage point increase in FDI.

As expected, a province's geographical location makes a significant difference in its FDI accumulation potential. The coastal regions have shown a clear advantage over inland provinces in their ability to attract FDI. The dummy variable that puts the twenty-nine provinces and autonomous regions into two broad categories is shown to be highly sensitive to the pattern of Chinese FDI distribution. Our results imply that coastal provinces have a 1.3 percentage point edge over their inland counterparts. It is the combined effects of being close to major shipping ports and being granted special investment incentives that set the coastal regions apart from others.

We thus conclude that to a large extent the destination of FDI within China is determined by market size, the extent of infrastructure development, the basic education level among adults, vicinity to import and export markets as well as capital sources and special investment policies.

The Relative Performances of the Provinces

On the basis of the statistical relationships established above, the predicted values for the dependent variable can be computed and compared with the actual FDI levels for each province. An examination of the difference between each pair of actual versus predicted FDI values--"the residual"--permits evaluation of the relative performances of the various provinces in China. Table 9 summarizes the findings of this analysis (using Model II). The results are reported in terms of the (i) ratio of the residual to the actual value and (ii) the absolute value of the residual itself. The provinces marked with a star (*) are those located along the coast.

The results show that just under half of the provinces attract more FDI than their potential (i.e., have ratios greater than 1.0), as captured by our explanatory variables. In relative terms, the 29 provinces can be categorized into three groups: the two extreme groups consist of those whose FDI accumulation at year-end 1992 either exceeded their potentials by more than 50 percent--the "Over-Investors"--(5 provinces), or fell below their potentials by more than 50 percent--the "Under-Investors"--(6 provinces); and the group in between--"Middle-Investors"--(18 provinces).

For most provinces, the actual values of FDI are more or less consistent with their predicted values on the basis of our model determinants. The residuals for these provinces range from 39.7

percent higher to 44.3 percent lower than the real FDI stock. Especially in the cases of Qinghai, Sichuan and Inner Mongolia, the absolute values of residuals are less than 10 percent of total FDI stocks, or \$10 million in real terms. Our analysis suggests that many of the coastal provinces, which have been important destinations for FDI,¹¹ still have a long way to go before reaching the saturation point.

Table 9: Comparing Actual and Predicted Values of FDI

<i>"Over-Investors"</i>			<i>"Under-Investors"</i>		
	Ratio	Value		Ratio	Value
Hainan *	80.83	763.63	Ningxia	-547.53	-7.99
Shaanxi	76.05	349.13	Hebei *	-311.65	-956.08
Fujian *	71.03	2,091.66	Zhejiang *	-163.27	-924.29
Guangdong *	69.94	8,428.90	Shanxi	-121.67	-100.91
Guizhou	55.02	49.01	Gansu	-91.75	-10.98
			Shanghai *	-51.14	-991.27

<i>"Middle-Investors"</i>					
	Ratio	Value		Ratio	Value
Xinjiang	39.65	21.46	Liaoning *	-44.34	-690.11
Heilongjiang	25.99	75.53	Hunan	-44.20	-109.74
Anhui	22.82	35.81	Henan	-43.48	-106.64
Yunnan	20.31	13.71	Guangxi *	-39.10	-175.30
Hubei	19.27	72.99	Tianjin *	-36.48	-222.61
Jiangxi	18.86	32.02	Jiangsu *	-22.75	-505.66
Jilin	9.88	17.85	Shandong *	-17.23	-314.49
Qinghai	9.43	0.33	Inner Mongolia	-8.87	-3.79
Beijing *	7.32	149.40	Sichuan	-1.82	-6.46

The "Over-Investors". Among the five Over Investors, the three coastal provinces come as little surprise. With an average annual FDI growth rate at 40 percent since 1988, Hainan's actual FDI accumulation is over 80 percent higher than its predicted level. The main reason for such an outcome lies more in the small predicted value of FDI for Hainan (the 11th smallest among all provinces) rather than its high actual FDI accumulation (the 8th highest). Despite a relatively extensive transportation system (the 6th highest transportation route density in China), Hainan has a very small economy (the 4th lowest in total GNP) and is poor in the quality of its labor force (the 11th highest illiteracy ratio in the nation). Its ability to attract such a large amount of FDI is mostly attributed to its unique geographical location and the favorable investment policies implemented there: the island's initial transformation to an SEZ was especially responsible for an upsurge in interest from the international investment community.

Fujian and Guangdong were also locales for the initial four SEZs. As seen from Table 6, these two provinces' FDI accumulations between 1985-92 were far ahead of all other provinces in China. Especially in the case of Guangdong, the amount of "excess" FDI it attracted was more than three times the total amount of FDI any other province ever accumulated in these eight years.

¹¹ Recently, investment has been flooding into Jiangsu and Shandong provinces, where there are many rural enterprises. This trend has been taken as an indication that rural enterprises may fast become partners for joint ventures and joint enterprises; see China Newsletter (1993)

Different as they are in terms of absolute economic size (Guangdong's GNP is more than three times that of Fujian) and the general quality of the labor force (Guangdong has the 8th lowest illiteracy ratio in China, while Fujian has the 8th highest), their relative performance in attracting FDI is similar (about 70 percent more than their respective potentials). Apart the government's free-handed approach toward these two provinces and the preferential policies implemented there since reform began, the special advantages of being geographically and/or culturally connected to the homes of China's two major foreign investors (Hong Kong and Taiwan) are among the major factors for their outstanding performance.

Shaanxi is the most important destination of FDI among China's inland provinces (see Table 6). It attracted over 75 percent more FDI in the eight years between 1985-92 than what our model predicts for the province. This amounts to \$349 million of "excess" foreign capital in value. Shaanxi's achievement in absorbing FDI may find its explanation in the province's rich natural resources and cultural/tourist attractions. Despite the fact that the province has one of the smallest economies in the country and one of the country's most illiterate population, Shaanxi has the highest average per-project FDI value among all provinces in China.¹² The massive investment in the late 1980s in real estate in Xi'an no doubt also helps to explain Shaanxi's strong FDI performance.

Inland Guizhou is among the most backward provinces in China. It has a very small economy, the lowest per capita income level, and one of the least educated populations in the country. Yet Guizhou was able to attract a steady inflow of FDI since the early 1980s and its cumulative FDI stock by year-end 1992 was 55 percent more than its potential as predicted by our model. Guizhou's rich mineral resources, cheap labor, and nascent environmental regulatory framework may have helped the province absorb labor-intensive and high-polluting industries. The absolute value of its residual is just below \$50 million, less than that of Beijing, Heilongjiang, or Hubei, although the latter three provinces' performances were less impressive in relative terms.

The "Under-Investors". Northwestern Ningxia and Gansu have the lowest per capita FDI accumulations in China (Table 6). Our model shows that the differences between the two provinces' actual and predicted FDI stocks are among the lowest in the country. Their poor achievement in attracting FDI lies in the fact that they are at a clear disadvantage in almost every aspect of FDI. Perhaps most important is that their inconvenient geographical location and extremely low development levels provide little incentive to foreign investors.

Shanxi's large negative residual to actual FDI ratio suggests that the province's potential for attracting FDI has not been explored to its fullness. Although Shanxi is rich in coal and iron, and has a relatively well educated labor force (the 5th lowest illiteracy ratio), its small economic size and underdeveloped transportation system no doubt contribute to the province's overall inability to absorb more FDI than it could.

Coastal provinces Hebei and Zhejiang are also among the group of poor underperformers. In spite of the fact that they contain important "open cities" (such as Tangshan and Ningbo, respectively), which enjoy special tax and other privileges, these two provinces did not benefit from their location as much as their neighboring provinces did. The gaps between their actual and predicted FDI levels reached over \$900 million in absolute value. Part of the reason is that both provinces are sandwiched between two more developed and/or more accessible provinces. This kind of immediate competition helps to obscure some of the potentials that Hebei and Zhejiang possess and puts them in an unfavorable position when competing for foreign investment.

Shanghai's under-performance in absorbing FDI is rather surprising. It is the biggest industrial and commercial center in China with the highest per capita income, the most densely

¹² The average cumulative FDI per project was \$9,356 thousand (pledged value) for Shaanxi, compared with \$6,331 thousand for Shanghai, \$1,318 thousand for Guangdong; (Pomfret 1991).

developed infrastructure system, and a very well educated population. Pudong New Development Area also gives Shanghai an added advantage in attracting foreign investors. Part of Shanghai's close to one billion dollar under-performance is explained by the stricter FDI screening process enforced there. Shanghai's effort in selecting only those FDI projects that bring advanced technologies but little environmental impact, has deterred potential foreign investors; but it also makes Shanghai second only to Guangdong in the number of large foreign investment industrial companies.

Observations

A few conclusions can be drawn from our empirical results. First, the geographical distribution of FDI in China is mostly determined by GNP, infrastructure development, extent of general education, and coastal location. To increase the attractiveness of China's interior provinces as destinations for foreign capital, it is important for the government to develop inland infrastructure networks. Our simulation results suggest that, despite their close proximity and the special cultural links to Hong Kong and Taiwan, China, Guangdong and Fujian, as well as Hainan, may be exhausting their potential as hosts for significant amounts of FDI in the future. Although the coastal provinces are already the destination of 90 percent of all the FDI in China, our model suggests that these provinces, especially Shanghai, Zhejiang, and Hebei, will continue to be the more attractive locations for foreign investment than the inland regions in general. However, along with the moves by China to further open its domestic market and to encourage more domestic investment in the inland areas, the weight of FDI is now gradually shifting from the establishment of export processing production centers to investment with a local market orientation that is more suitable to locate in the inland provinces. Hunan and Henan stand out in particular as promising investment locations.

IV. SECTORAL DISTRIBUTION OF FDI

Akin to the geographic distribution of FDI in China, the distribution of FDI across the country's industrial sectors is also skewed. This phenomenon became pronounced during the first half of the 1980s, when there was a concentration of FDI in the tourist industries, such as hotel and catering services, and more recently in real estate. Surprisingly, little effort has been made toward a rigorous quantitative analysis as to the determinants and impacts of the sectoral distribution of Chinese FDI or to put them into international perspective.

We base our analysis on data compiled by the United Nations in its World Investment Directory series. Table 10 displays the current landscape of FDI distribution by sector. The mean of the share of FDI flows into each industry is calculated for (i) the global economy as a whole, and for (ii) the developed countries, (iii) the Asian and Pacific countries, and (iv) the Latin American and Caribbean countries separately.

The Global Trend

The sectoral distribution of FDI varies greatly from country to country, and from year to year. Many factors that are unique to a particular region during a particular period of time work together in determining how FDI flows into the various sectors of an economy. Table 10 shows that the sectoral distribution of FDI is quite different between the three regions. The sector that has the most uniformity is the manufacturing sector, which attracts about 42 percent of global FDI on the average. In Asia, almost half of the FDI flowing into the region is concentrated in this sector. The proportion of FDI attracted to manufacturing in Latin America and the Caribbean is the smallest among the three, although it is still the largest sectoral share of FDI in that region.

Within the manufacturing sector, data on FDI stocks are disaggregated into twelve categories. Food, beverages, tobacco, chemicals and mechanical and electrical equipment industries are those that attract the most foreign capital. The chemicals industry, in particular, has consistently commanded the most FDI in all countries, attracting around 9 percent of total national FDI accumulation. For

the developed economies, this share is slightly lower, and is closely followed by mechanical equipment and metals productions.¹³ In Asia, on the other hand, the chemicals industry hosts more than 10 percent of the total FDI flowing into the region, although its share still lags behind that of the electrical equipment industry.

Table 10: Global FDI Stock Distribution by Sector, 1993; China, 1984, 1988, 1993
Value (Number of Observations)

	Overall	Developed Economies	Asia	Latin America	China		
					1984	1988	1993
Primary	22.09 (44)	8.32 (14)	33.37 (14)	24.26 (16)	40.88	12.30	3.1
Agriculture	5.03 (44)	1.05 (14)	11.81 (14)	2.58 (16)	1.69	2.69	1.50
Mining	8.64 (44)	5.58 (14)	7.90 (14)	11.98 (16)		1.37	
Petroleum	8.39 (44)	1.77 (14)	13.53 (14)	9.69 (16)	31.18	6.41	1.60
Secondary	42.42 (44)	43.04 (20)	46.06 (11)	38.40 (13)	26.97	47.60	51.20
Food	6.30 (41)	5.29 (17)	5.40 (11)	8.38 (13)	2.90		
Textiles	2.93 (36)	1.43 (13)	3.07 (11)	4.45 (12)	1.69		
Paper	2.02 (33)	2.76 (14)	0.57 (9)	2.30 (10)	5.79		
Chemicals	9.16 (43)	8.46 (19)	10.57 (11)	9.01 (13)	1.31		
Coal products	4.06 (18)	9.10 (5)	1.90 (7)	2.39 (6)			
Rubber	1.43 (21)	0.98 (7)	1.65 (7)	1.67 (7)			
Minerals	2.73 (31)	3.36 (11)	3.21 (9)	1.70 (11)	0.11		
Metals	5.16 (39)	7.09 (18)	4.66 (10)	2.47 (11)	0.30		
Mech equipment	6.18 (36)	7.94 (15)	4.09 (10)	5.69 (11)	7.62		
Elec equipment	6.81 (23)	4.87 (9)	12.58 (7)	3.54 (7)			
Motor vehicle	3.61 (20)	2.14 (9)	5.95 (6)	3.88 (6)			
Other transport	0.87 (18)	1.66 (5)	2.32 (11)	0.13 (7)			
Tertiary	38.20 (53)	47.51 (20)	28.58 (15)	35.89 (18)	32.14	40.10	47.30
Construction	3.38 (40)	0.71 (14)	2.49 (13)	7.15 (13)		1.56	3.00
Distr trade	11.13 (50)	17.03 (19)	6.10 (14)	8.67 (17)	2.79	3.31	3.60
Transport	3.66 (41)	3.21 (17)	1.51 (11)	6.06 (13)	3.04*	1.68*	1.60
Communication	0.71 (11)	0.39 (5)		0.99 (6)			
Finance	14.52 (46)	17.68 (20)	9.59 (11)	13.92 (15)		0.29	0.07
Real estate	4.79 (18)	10.09 (7)	1.99 (3)	1.21 (8)	15.36	28.34	32.60

Sources: UN World Investment Directory; China Economic News, No 28, 25th July, 1994.

* Data on Chinese transportation and communication are combined.

The variations in FDI shares in both the primary and the tertiary sectors are more noticeable. While the world average for FDI stocks in the primary sector (which comprises agriculture, mining and quarrying, and petroleum) is 22 percent, only a little more than 8 percent of the FDI in developed countries goes to this sector; yet more than a third of Asian FDI accumulation is here. On the average, the mining industries attract the most FDI in the primary sector, while agricultural production the least. This trend is especially reflected in the developed economies and the Latin American and the Caribbean countries, where the share of FDI in mining and quarrying is 5.3 and 4.6 times, respectively, that of agriculture, fishery, and forestry.

¹³ The 9.1 percent FDI share estimated for coal and petroleum products is based on the figures of 5 countries, too small a sample size to be the basis of general conclusions.

In Asia, however, the sectoral distribution of FDI in the primary sector has a very different pattern. The offshore oil extracting industry dominates. It attracts more FDI than any other sector. Moreover, unlike elsewhere in the world, a large percentage of FDI in Asia flows into agricultural, forestry, and fishery industries.

International experience demonstrates that the services sector is the area that becomes more attractive to foreign investment as an economy matures. This conclusion is corroborated by a comparison of the share of FDI going into the services sector in the developed economies (47.5 percent) and the world average (38.2 percent). For the Asian and Pacific countries, however, the tertiary sector attracts the least attention from foreign investors. Their FDI accumulation in this sector is about 25 percent less than the world average.

Within the services sector, distribution as well as finance and banking are the leading recipients of FDI. This is true for all country groups. For both the developed and the Latin American and Caribbean countries, the finance and banking sector is the area that receives the most FDI. However, for the fifteen Asian and Pacific countries in our sample, the financial sector, though attracting more FDI than any other industries within the services sector in the region, lags behind four other primary and manufacturing industries in terms of total FDI accumulation.

Comparing China

The last column of Table 10 reports the FDI sectoral distribution in China in three representative years. The figures suggest that in the decade 1984-93, the sectoral composition of FDI in China has changed substantially. The share of FDI in the primary sector dropped to 3.1 percent in 1993, from 40.9 percent in 1988, when offshore petroleum exploration alone hosted as much FDI as the whole services sector accumulated between 1979-84. With the decline in the popularity of joint development as a form of FDI in China (see Table 4), the primary sector's role in attracting FDI is likely to stay small in the coming years.

At the same time, the Chinese manufacturing sector is fast becoming the most important field to foreign investors. By 1991, this sector absorbed more than half of Chinese FDI, and the share of FDI accumulation in this sector almost doubled between 1988-93. In addition, the investment focus has begun to move from the textile processing, chemical, and mechanical and electronics industries to technically advanced enterprises.

The Chinese services sector is another area foreign investors are making commitments with increasing interest. During the ten years 1988-93, the services sector's FDI accumulation rose from 32 percent of total FDI stock in China to more than 47 percent, the level maintained by the developed economies in the late 1980s. Within the services sector, however, the distribution of foreign capital is skewed. Unlike the rest of the world, the financial sector in China absorbed less than 1 percent of FDI, and its share has been decreasing since 1988. The distributive trade sector, although increasing in importance between 1984-93, still accommodates only 3.6 percent FDI in China, compared with 17 percent in the developed economies and 6.1 percent in Asia. Instead, an overwhelming proportion of Chinese service sector FDI has been concentrated in real estate. Despite the government's effort to curb new fixed asset investment and a recent decline in the flow of FDI into hotel businesses, the share of approved FDI accumulation in real estate more than doubled between 1984-93.

Table 11 displays FDI agreements contracted in 1995 by sector; these data thus signal the future sectoral distribution of FDI flows into China (assuming the contracts are implemented). The table shows that FDI in industry constitutes about two-thirds of total contracts. Real estate is the next largest sectoral FDI recipient, with about one-fifth of contracted FDI.

Table 11: Contracted FDI Flows in China in 1995, by Sector
 \$US millions

	1995	
	Value	Share
Total	91,282	100.0%
Agriculture	1,736	1.9%
Industry	61,648	67.5%
Construction	1,918	2.1%
Commerce	3,427	3.7%
Transportation/Communication	1,700	1.9%
Real estate	17,835	19.5%
Other	3,018	3.4%

Source: China Statistical Yearbook, 1996.

Observations

In the main, China's sectoral distribution of FDI is coming in line with the rest of the world, moving toward the pattern in the developed countries. But the FDI landscape across China's sectors has been highly skewed.

In the services sector, concerted efforts are being made to attract FDI away from the real estate sector and into financial services and telecommunications--pillar sectors for mature economic development. Within the financial services sector, although recent years have seen an increase in the number of licenses granted to foreign banks to conduct foreign exchange transactions in China, these institutions' activities are limited to the domestic securities markets.

As for telecommunications, foreign firms have been banned from entering the industry. Their current activity has primarily been limited to technology licensing and the manufacturing of digital switching equipment. As China moves closer to a modern, market economy, there will be the need for foreign investment to finance the development of this vital infrastructure component.

IV. CONCLUSION

This paper has analyzed the geographical and sectoral distribution that China has evidenced in FDI inflows since reform began in 1978. It shows that despite the impressive overall achievement in

attracting an increasing amount of foreign investment, the pattern of FDI within China has been skewed. To be sure, the authorities in China have begun to recognize the importance of distributing FDI more equally. They are focusing on developing infrastructure facilities to previously disadvantaged inland regions to make them more inviting to foreign capital, and are fashioning policies to provide equal footing for FDI flows to certain manufacturing industries and underdeveloped services sectors.

In terms of China's regional development policy, the Ninth Five Year Plan (1996-2000) gives special attention to reducing regional disparities. Within that context, strides are being made to create some degree of FDI policy neutrality across locales. To achieve better balance between inland areas and the SEZs, announcements have been made to begin a phase out of some of the tax preferences given to foreign investors in the SEZs (although at the same time various inland cities are being declared as having the same "open" status as the SEZs). These "better-than-national-treatment" concessions are estimated to have an opportunity cost (of forgone tax revenue) of 1.2 percent of China's GDP, while yielding few real incentives to foreign investors.¹⁴

In fact, as noted above, there is little doubt that some, perhaps a significant share, of the recorded FDI in China is due to "round-tripping"--actually originating from domestic sources but returning as "foreign"--simply to take advantage of the tax incentives provided to foreign-invested firms. Evidence that "round-tripping" takes place may be found in the "errors and omissions" of the balance of payments, whose movements parallel those of FDI inflows. On this basis, perhaps as much as 25 percent of China's FDI inflows are the result of "round-tripping." Other evidence may be found in China's FDI outflows, especially to Hong Kong, which rose sharply in 1992 at the same time that Hong Kong capital inflows to China increased. In April 1996, China eliminated exemptions from the value added tax (VAT) and from customs duties on imported capital equipment for foreign funded firms, thus enhancing its national-treatment policy stance toward FDI.

Liberalization is also being introduced in stages with regard to FDI in certain sectors, as articulated in a set of new FDI guidelines issued in late 1995. They provide for easing FDI restrictions in transportation and communications, banking, management consulting, insurance, and other services industries, which were previously banned or allowed on an experimental basis in certain coastal regions. Business establishments belonging to banking, insurance, and other foreign-owned financial institutions have begun to spread to the major cities around the country. In addition, approvals have been given to the establishment of foreign-funded accounting offices, law offices, and consulting offices.

Still, despite these improvements and China's sizeable share of foreign direct investment, the country's FDI policy regime is insufficiently transparent, involves excessive levels of governmental approval, and in many dimensions--such as screening provisions, performance requirements, expropriation rights and investor-state dispute settlement--is below international standards. As other developing countries continue to improve the policy climate for FDI, without commensurate improvements in its own FDI regime, China's relative attractiveness as a host country may suffer. As part of its bid to join the WTO, China will be faced with an incentive to comply with the WTO's investment provisions, which will help improve the country's FDI policy regime.

¹⁴ See Broadman (1995b).

Using the prism of FDI as a case study, our basic message is like many other observers of the eighteen year old Chinese "economic miracle." While China has made remarkable strides in moving towards a market-oriented economy, greater attention is now required on the internal structure of the country's development and on the inequities that have come to exist as a result of the reform process.¹⁵

¹⁵ An analysis of the prospects and problems of China's enterprise reform program is contained in Broadman (1995a).

REFERENCES

- Atlas of the People's Republic of China*. 1989. Foreign Languages Press, China Cartographic Publishing House. Beijing, China.
- Broadman, Harry G. 1994. "The Uruguay Round Accord on Trade in Services." *The World Economy*, Vol. 17, No.3, May.
- Broadman, Harry G. 1995a. *Meeting the Challenge of Chinese Enterprise Reform*. World Bank Discussion Paper. No. 283. April. The World Bank.
- Broadman, Harry G. 1995b. "Tax Policy Toward Foreign Direct Investment." Economic Policy Note. August. The World Bank.
- Broadman, Harry G. 1996. *Policy Options for Reform of Chinese State Owned Enterprises*. World Bank Discussion Paper. No. 335. June. The World Bank.
- Caves, Richard. 1982 *Multinational Enterprises and Economic Analysis*, Cambridge University Press.
- China Industrial Companies, 1993/94*. State Statistical Bureau. 1993. China Statistical Information and Consultancy Service Center.
- China Statistical Yearbook*, Various years. China Statistical Publishing House. Beijing.
- "Foreign Investment in the PRC, 1991-92." 1993. *China Newsletter (Japan)*, 102:16-19, January - February. China-North Asia Section. JETRO.
- Huang, Dongpei and Sayuri Shirai. 1994. "Information Externalities Affecting the Dynamic Pattern of Foreign Direct Investment: The Case of China." *IMF Working Paper*. Research Department. International Monetary Fund.
- Kawaguchi, Osamu. 1994. "Foreign Direct Investment in East Asia: Trends, Determinants and Policy Implications." *World Bank Internal Discussion Paper*, East Asia and Pacific Regional Series. The World Bank.
- Khan, Zafar Shah. 1991. "Patterns of Direct Foreign Investment in China." *World Bank Discussion Paper*. No. 130. China and Mongolia Department Series. The World Bank.
- Kumar, Nagesh. 1993. "Determinants of Export Orientation of Foreign Production by U.S. Multinationals: An Inter-Country Analysis." *Journal of International Business Studies*, First Quarter: 141-156.
- Lardy, Nicholas R. 1994. *China in the World Economy*. Institute for International Economics, Washington DC.
- Mintz, Jack. 1990. "Corporate Tax Holidays and Investment," *World Bank Economic Review*.

Pomfret, Richard. 1991. *Investing in China: Ten Years of the Open Door Policy*. Iowa State University Press, Ames.

Wei, Shangjin. 1994. "Foreign Direct Investment in China: Sources and Consequences." Mimeo. Harvard University and NBER.

Wells, Louis. 1986 "Investment Incentives: An Unnecessary Debate," *The Center on Transnational Corporations Reporter*, United Nations.

Woodward, D.P. and R. J. Rolfe. 1993. "The Location of Export-Oriented Foreign Direct Investment in the Caribbean Basin." *Journal of International Business Studies*, First Quarter: 121-144.

World Debt Tables. The World Bank, March 1996.

World Development Report. The World Bank. Various issues.

World Investment Report, 1995: "Transnational Corporations and Competitiveness". United Nations.

World Investment Directory. United Nations. Various issues.

Policy Research Working Paper Series

Title	Author	Date	Contact for paper
WPS1705 The Polish Experience with Bank and Enterprise Restructuring	Fernando Montes-Negret Luca Papi	January 1997	T. Ishibe 38968
WPS1706 Monetary Policy during Transition: An Overview	Martha de Melo Cevdet Denizer	January 1997	C. Bernardo 37699
WPS1707 Trade Reorientation and Productivity Growth in Bulgarian Enterprises	Simeon Djankov Bernard Hoekman	January 1997	J. Ngaine 37947
WPS1708 Has Latin America's Post-Reform Growth Been Disappointing?	William Easterly Norman Loayza Peter Montiel	January 1997	R. Martin 31320
WPS1709 Poverty Comparisons with Noncompatible Data: Theory and Illustrations	Jean Olson Lanjouw Peter Lanjouw	January 1997	A. Ramirez 85734
WPS1710 Why Paper Mills Clean Up: Determinants of Pollution Abatement in Four Asian Countries	Raymond S. Hartman Mainul Huq	January 1997	D. Wheeler 33401
WPS1711 Issues in Comparing Poverty Trends Over Time in Côte d'Ivoire	Christine Jones Xiao Ye	January 1997	R. Martin 31320
WPS1712 Demand Elasticities in International Trade: Are They Really Low?	Arvind Panagariya Shekhar Shah Deepak Mishra	December 1996	J. Badami 80425
WPS1713 Why Did Colombian Private Savings Decline in the Early 1990s?	Alejandro López	January 1997	E. Khine 37471
WPS1714 Fiscal Federalism in Bosnia-Herzegovina: The Dayton Challenge	William Fox Christine Wallich	January 1997	Y. Jiwa 34848
WPS1715 The Evolution of Poverty and Welfare in Nigeria, 1985-92	Sudharshan Canagarajan John Ngwafon Saji Thomas	January 1997	B. Casely-Hayford 34672
WPS1716 Reforming Pensions in Zambia: An Analysis of Existing Schemes and Options for Reform	Monika Queisser Clive Bailey John Woodall	January 1997	H. Arbi 34663
WPS1717 Fiscal Federalism in Bosnia-Herzegovina: The Dayton Challenge	William Fox Christine Wallich	January 1997	Y. Jiwa 34848
WPS1718 Does Environmental Regulation Matter? Determinants of the Location of New Manufacturing Plants in India in 1994	Muthukumara Mani, Sheoli Pargal, and Mainul Huq	February 1997	E. de Castro 89121

Policy Research Working Paper Series

Title	Author	Date	Contact for paper
WPS1719 Shifting Responsibility for Social Services As Enterprises Privatize in Belarus	David Sewell	February 1997	C. Lawrence 32216
WPS1720 The Distribution of Foreign Direct Investment in China	Harry G. Broadman Xiaolun Sun	February 1997	J. Grigsby 82423