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8

Why Does China Attract So Little Foreign Direct Investment?

Shang-Jin Wei

"China fever" has been a phenomenon of the 1990s. In 1995, the last year for which definite figures are available, China received more foreign direct investment than any country except the United States.
—*Economist,* 1 March 1997, 38, U.S. edition

Headline: China Projects Another Record Investment Year; European, Japanese, U.S. Firms Top List
The world's strongest magnet for overseas investment is projecting another record tally for 1996, even though the number of project approvals will be lower than in the previous year.
—P. T. Bangserg, *Journal of Commerce,* 27 December 1996, 3A

8.1 Introduction

"China fever" and "the world's strongest magnet for overseas investment" are but two phrases one reads often in the media that describe the supposed euphoria that international investors have about investing in China. While the recent Asian financial crisis has reduced the official forecast somewhat on how much foreign direct investment (FDI) will go into China in 1998, it remains an attractive host for FDI. Or so the press will lead you to believe.

This paper has two objectives. First, it will show that contrary to the impression one gets from the popular media, China continues to be an *underachiever,* rather than an overachiever, as a host of direct investment from the world's major source countries (e.g., the United States, Japan,

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Germany, the United Kingdom, and France). Most of the high volume of inward FDI comes from unusual source economies such as Hong Kong, Taiwan, Macao, and Singapore.

Second, the paper will examine whether corruption by government officials, the excessive burden of regulation, and other institutional characteristics may have contributed to the relatively low volume of inward FDI from the major source countries.

In an earlier (1996) paper using data from the United Nations Council of Trade and Development, I fitted a linear regression on direct investment during the 1987–90 period from the world's five largest source countries to a number of host countries and compared China's actual reception of FDI with its potential as predicted by the regression. Based on that methodology, I found that FDI in China was significantly below its potential, in both an economic and a statistical sense.

A number of factors could explain that finding. First, given that China's opening to foreign investment started relatively late (from 1980) and that the Tiananmen Square incident temporarily diminished FDI over 1989–90, 1987–90 may not be a good period by which to judge China's appeal as a host country. FDI in China has grown exponentially recently. For example, total FDI in China in 1993 was between five to eight times that in 1990 (see table 8.1 below).

Second, the linear specification with the logarithm of FDI as the dependent variable excludes all source-host country pairs that have zero FDI. This could bias the results to exaggerate the potential amount of FDI that China could receive.

Third, while the earlier paper examined host country size, level of development, and relationship with the source country as determinants of FDI, it neglected the importance of business environment, particularly the extent of corruption by government officials in the host country. Recent papers by Hines (1995) and Wei (1997a, 1997b) have suggested that severe corruption in a host country could significantly deter foreign investors from investing in the country.

The current paper seeks to advance our understanding of FDI in China in a number of ways. We will use more recent data with more source countries, that is, bilateral stock of direct investment in 1993 from the OECD. We will employ a modified Tobit specification that takes into account possibly zero FDI in certain source-host country pairs. And we will explicitly examine whether corruption has deterred FDI.

The paper is organized in the following way. Section 8.2 reviews the recent trend in FDI in China and the source country composition of the FDI. Section 8.3 looks into the questions of whether China has attracted enough FDI from the world's major source countries and whether corruption has impeded the FDI in a significant way. Section 8.4 concludes.

8.2 Foreign, Quasi-Foreign, and False-Foreign Direct Investment

8.2.1 The Overall Picture

The transformation of China from a country with virtually no foreign investment before 1979 to "the world's strongest magnet for overseas investment" is remarkable and has been well documented.

In Chinese statistics, two notions of FDI are used: the contractual amount and the realized value. The contractual amount is the amount that investors plan to invest over a period of time at the time of applying for approval for investment. The actual or realized value is not bound by the contractual amount and indeed is typically much smaller. Because being able to attract foreign investment is often counted to the credit of local officials by their superiors, government officials have an incentive to encourage foreign investors to overstate the (not legally binding) contractual amount. For this reason, all data on FDI in this paper refer only to realized values.

Table 8.1 exhibits the trajectory of the realized flow of FDI going into China every year from 1983 to 1998 (estimated amount) as reported by the China State Statistics Bureau. The growth is truly exponential: total inward FDI flow was a mere $0.64 billion in 1983. It grew to $3.19 billion in 1988, to $27.52 billion in 1993, and to $41.7 billion in 1996. Every year

Table 8.1 **Realized FDI in China: Annual Flows, 1983–98 (billion U.S. dollars)**

Year	Annual Flow
1983	0.64
1984	1.26
1985	1.66
1986	1.88
1987	2.31
1988	3.19
1989	3.39
1990	3.49
1991	4.37
1992	11.00
1993	27.52
1994	33.77
1995	37.52
1996	41.73
1997	37.00[a]
1998	37.00[a]

Source: China State Statistics Bureau, *Zhongguo Tongji Nianjian* (China statistical yearbook; Beijing, 1998).

[a]Estimates by the China State Statistics Bureau.

since 1995, China received more FDI than any other country except the United States.

The recent Asian financial crisis has lowered the official estimate of the inward flow of FDI in 1997 to $37 billion (another estimate forecasts modest growth over the 1996 number, to $45.3 billion). The 1998 inward flow is forecast to stay at the 1997 level.

IMF estimates are generally $3 to $5 billion (roughly 10 percent of the total) less than Chinese official statistics. One Chinese official during an interview with the author in March 1998 suggested that the market value of the shares in Chinese companies floated in the international market (mainly on the Hong Kong and New York Stock Exchanges) are counted as part of FDI. This, if true, would be the first source of false-foreign direct investment in the official statistics. While equity investment may be counted as direct investment in other countries if the investment implies foreign control of the company, in the Chinese case no company floated in the international capital market transfers control rights to foreign shareholders. In fact, the state typically maintains 51 percent or more nontrading shares in the companies listed on domestic as well as foreign stock markets. Even the shares bought by domestic investors do not entail control rights over the management of the companies. So this amount should be subtracted from the official statistics on inward FDI, at least for recent years.

To put inward FDI in the context of China's overall participation in the international capital market, table 8.2 presents data on all forms of capital inflow into China over the period 1992–96. Two features are worth noting. First, during the sample period, FDI has consistently been a more important source of foreign capital inflow than portfolio investment. Second, within the category of portfolio investment, loans from international commercial banks tend to be a small fraction of overall external loans, dominated by loans from foreign governments, international financial institutions, and export credits. These are significant because recent studies have suggested that a low ratio of FDI to portfolio inflow and a high ratio of short-term debt to overall foreign borrowing tend to be associated with a higher probability of currency crisis (Frankel and Rose 1996; Radelet and Sachs 1998).

FDI takes one of the following four forms: joint ventures, contractual joint ventures, wholly owned foreign firms, and joint exploration (mainly for offshore oil). Joint ventures are by far the dominant form of FDI, accounting for roughly half of all FDI throughout the sample. Foreign wholly owned firms as a form of FDI are catching up fast, growing by 400 percent cumulatively over the 1992–96 period, as compared to the 279 percent growth rate for all FDI in the same period.

Chinese statistics contain a third category of foreign capital aside from

Table 8.2 **Realized Foreign Capital Going into China, Including Loans and Direct Investment, 1992–96 (million U.S. dollars)**

Inflow	1992	1993	1994	1995	1996
Total	19,202.33	38,959.72	43,212.84	48,132.69	54,804.16
External loans	7,910.71	11,188.85	9,267.00	10,327.00	12,669.00
Loans from foreign governments	2,566.38	3,040.81	2,400.00	2,773.00	3,451.00
Loans from international financial institutions	1,306.18	2,268.71	1,466.00	2,707.00	2,997.00
Export credit	989.11	1,220.66	2,190.00	2,669.00	1,328.00
Commercial bank loans	1,778.32	3,270.55	1,857.00	1,395.00	1,494.00
Bonds and equity shares issued abroad	1,270.72	1,388.12	1,354.00	783.00	3,399.00
FDI	11,007.51	27,514.95	33,766.50	37,520.53	41,725.52
Joint ventures	6,114.62	15,347.78	17,932.53	19,077.90	20,754.50
Contractual joint ventures	2,122.45	5,237.56	7,120.18	7,535.60	8,109.43
Wholly owned foreign firms	2,520.31	6,505.57	8,035.60	10,316.83	12,606.14
Joint exploration	250.13	424.04	678.19	590.20	255.45
Other foreign investment	284.11	255.92	179.34	285.16	409.64
International leasing	44.50	46.20	19.69	29.25	87.22
Compensation trade	172.31	89.70	88.91	211.49	158.32
Export processing or assembly	67.30	120.02	70.74	44.42	164.10

Source: China Ministry of Foreign Economic Relations and Trade (MOFTEC), *Almanac of China's Foreign Economic Relations and Trade* (various issues). See also MOFTEC's website: http://www.moftec.gov.cn/moftec/official/html/statistics_data/utilization_of_foreign_capital.html.

loans and direct investment. This category, labeled "other foreign investment" in table 8.2, includes three subcategories: leasing, compensation trade, and export processing or assembly. The biggest part of the three, compensation trade, in which foreign firms provide machines or product designs to Chinese firms and obtain part of the output as compensation, is no longer as popular as at the beginning of the reform in early 1980s. In fact, this other foreign investment is small relative to FDI and has become ever less important.

8.2.2 Source Country Composition of Foreign Direct Investment

FDI in China has a very unusual composition of source countries. According to the United Nations, the world's five most important source countries in terms of outflow during 1990–95 were the United States, Japan, Germany, the United Kingdom, and France. Collectively, they accounted for over 70 percent of all direct investment from developed countries.

If one looks at who invests in China (table 8.3), one finds that Hong Kong is the dominant direct investor. Hong Kong's annual inflow accounts

Table 8.3 **Source Country Distribution of FDI in China: Flow Data (million U.S. dollars)**

Country	1990	1991	1992	1993	1994	1995	1996
Total	3,487.11	4,366.34	11,007.51	27,514.95	33,766.50	37,520.53	41,725.52
Hong Kong	1,880.00	2,405.25	7,507.07	17,274.75	19,665.44	20,060.37	20,677.32
Japan	503.38	532.50	709.83	1,324.10	2,075.29	3,108.46	3,679.35
United States	455.99	323.20	511.05	2,063.12	2,490.80	3,083.01	3,443.33
Germany	64.25	161.12	88.57	56.25	258.99	386.35	518.31
Macao	33.42	81.62	202.00	586.50	509.37	439.82	580.39
Singapore	50.43	58.21	122.31	490.04	1,179.61	1,851.22	2,243.56
United Kingdom	13.33	35.39	38.33	220.51	688.84	914.14	1,300.73
Italy	4.10	28.21	20.69	99.89	206.16	263.31	166.94
Thailand	6.72	19.62	83.03	233.18	234.87	288.24	323.31
Australia	24.87	14.91	35.03	109.96	188.26	232.99	193.92
Switzerland	1.48	12.31	29.14	41.02	70.54	63.53	187.61
Canada	8.04	10.76	58.24	136.88	216.05	257.02	337.93
France	21.06	9.88	44.93	141.41	192.04	287.02	423.75
Bermuda	–	8.00	0.29	18.53	50.74	109.14	86.12
Netherlands	15.98	6.67	28.41	84.00	111.05	114.11	125.11
Norway	2.23	6.05	5.06	1.34	2.31	1.53	26.79
Philippines	1.67	5.85	16.28	122.50	140.40	105.78	55.51
Panama	6.76	3.56	8.19	14.84	18.30	15.66	15.47
Ireland	–	2.50	1.00	1.50	–	0.99	10.03
Indonesia	1.00	2.18	20.17	65.75	115.70	111.63	93.54
Malaysia	0.64	1.96	24.67	91.42	200.99	259.00	459.95

Source: See table 8.2 source.

for half or more of total FDI inflow into China for every year during the 1992–96 period. Hong Kong's dominance tends to be more important in earlier years. So if one looks at the stock of FDI, Hong Kong's share is close to 60 percent. Japan and the United States are the second and third largest investors in China (the relative ranking may switch between the two depending on the year examined). However, each invests significantly less than Hong Kong, typically less than a quarter of what Hong Kong invests. The United Kingdom, France, and Germany are important source countries. However, their investments not only lag distantly behind that of Hong Kong but sometimes also lag behind Singapore and Macao.

One may question whether Hong Kong's investment in mainland China should be counted as FDI. Ever since the founding of the People's Republic, the Chinese government consistently declared that it did not regard the various treaties that ceded or leased what is now the Hong Kong territory to Britain as valid and legally binding. It claimed that Hong Kong was always part of China. On 1 July 1997, Britain formally returned the territory to China. In that connection, one can at most treat investment coming from Hong Kong as quasi-foreign.[1]

Part of reported FDI from Hong Kong is in fact capital originating from the mainland and coming back to the mainland disguised as Hong Kong investment—sometimes labeled "round-tripping" capital—to take advantage of tax, tariff, and other benefits accorded to foreign-invested firms. One estimate puts round-tripping capital at 15 percent of total Hong Kong investment in China in the Chinese official statistics. Round-tripping capital is best described as "false-foreign" direct investment. Using the previous estimate, false-foreign investment was on the order of $3 billion in 1996, or over 7 percent of the total FDI flow into China, according to the official statistics.

To summarize, if one excludes false-foreign and quasi-foreign direct investment in China, true FDI would be 50 percent smaller in terms of the flows in recent years, and 60 percent smaller in terms of the stocks.

8.3 China as a Host of Direct Investment from the Major Source Countries

I now examine whether China is an underachiever as a host of investment from the world's major source countries, and whether corruption

1. Part of Hong Kong investment may be Taiwanese investment disguised to avoid political inconvenience with the Taiwanese government. If one adopts the view that Taiwan and China belong to the same country, which is the official position of the two governments on both sides of the Taiwan Strait, then this part of investment should also be treated as quasi-foreign.

Another part of Hong Kong investment may truly be investment from the world's major source countries such as the United States and United Kingdom. This portion is not likely to be big. We will return to this discussion later in the paper.

has deterred foreign investment. Let me first explain the data, and then the specification of the statistical framework, before presenting and discussing the results.

8.3.1 Data

Foreign Direct Investment

The dependent variable is the bilateral stock of FDI at the end of 1993 from seven major source countries to forty-two host countries. The data come from the OECD bilateral FDI database covering outward FDI by destination. They are based on reports by individual source countries. The source countries are the United States, Japan, Germany, the United Kingdom, France, Italy, and Norway. These seven countries are the only source countries that have nonmissing data on FDI in China. The number of host countries is constrained by availability of data on corruption and taxes.

From this database, table 8.4 presents the bilateral stock of FDI from these seven countries into China and Hong Kong in 1993, 1991, and 1989. Comparing tables 8.3 and 8.4, one notices discrepancies, sometimes quite large, in the bilateral FDI from the two reporting sources (also see appendix table 8A.1). The stock values of FDI in 1993 by the United States, Japan, and Italy according to source country reports in the OECD database were actually a lot smaller than the *flows* of FDI from these countries in the same year according to Chinese (host country) statistics, sometimes by a factor of three. The stock values of FDI in 1993 from the United Kingdom and France according to their reports to the OECD were close to the flow values reported by the Chinese. Stocks of FDI for Germany and Norway in 1993 were higher than the corresponding flows, and the two can plausibly be matched.

There are reasons why the Chinese data may be overstated (related to bureaucrats' incentives to exaggerate their ability to attract FDI and foreign investors' incentives to exaggerate their amount of investment in order to report lower taxable incomes). But there are also plausible reasons why the OECD numbers may be understated (e.g., reinvested dividends may not be properly counted). Given that the Chinese reported flow in 1993 was bigger for some countries than the entire stock in the same year, it seems likely that the Chinese figures contain much fat.

In any case, in the interest of using a consistent database, all subsequent regressions are run using the OECD data. I will, however, discuss the implications of measurement errors for the interpretation of the statistical results.

Corruption Measure

By its nature, corruption is very difficult if not infeasible to measure objectively. Researchers have relied on corruption perception indexes based on surveys of experts or firms. For example, the Business International

Table 8.4 **Bilateral Stock of FDI in China and Hong Kong**

	China			Hong Kong			
Source Country	1993	1991	1989	1993	1991	1989	Unit
France	827	536	337	8,607	2,166	2,727	Million francs
	140.3	103.5	58.2	1,459.9	418.1	471.1	Million US$
Germany	734	339	173	1,718	1,233	1,127	Million marks
	425.2	223.6	101.9	995.2	813.3	663.8	Million US$
Italy	88	48	n.a.	218	90	n.a.	Billion lira
	51.6	41.7	n.a.	127.9	78.2	n.a.	Million US$
Japan	6,163	3,402	2,474	12,748	10,775	8,065	Million US$
United Kingdom	183	80	n.a.	3,568	1,895	2,059	Million pounds
	217.1	149.7	n.a.	5,284.9	3,545.0	3,305.7	Million US$
United States	916.0	426.0	436.0	10,063.0	6,656.0	5,412.0	Million US$
Norway	43	n.a.	n.a.	364	68	189	Million kroners
	5.7	n.a.	n.a.	48.4	11.4	28.6	Million US$

Sources: Unless otherwise noted, data in units of source country currency are from table 8: "Direct Investment Abroad: Position at Year-End by Country" in each source country section of OECD, *International Direct Investment Statistics Yearbook* (Paris, 1996). U.S. dollar amounts for France, Germany, Italy, the United Kingdom, and Norway are converted using the end-of-year exchange rate from IMF, *International Financial Statistics* (Washington, D.C., various issues), line ae. Japanese outward FDI is reported in million U.S. dollars in the OECD book.

(BI) index, based on surveys conducted during 1980–83, asked experts or consultants to rank the countries with which they worked according to "the degree to which business transactions involve corruption or questionable payments." Mauro (1995) and Wei (1997a, 1997b) used it to examine the relations between economic growth and corruption and between FDI and corruption, respectively. Unfortunately, the BI index does not cover China in its sample.

The corruption measure that I use in this paper is the Transparency International (TI) index for 1988–92. Transparency International is an agency dedicated to fighting corruption worldwide. Its index is an average of four surveys of perception of corruption conducted during 1988–92.[2]

Other corruption indexes are available. The International Country Risk Group (ICRG) index is another index based on surveys of experts or consultants. The Global Competitiveness Report (GCR) 1997 index is based on a survey of about 2,400 firms in fifty-eight countries. The pairwise correlations among the BI, TI, and GCR indexes are very high. For example, the correlation coefficient between the BI and TI (or GCR) indexes is .88 (or .77). This gives one confidence that the statistical results I will present are not likely to be sensitive to the choice of index. To get a concrete idea of the corruption measure, table 8.5 reports the values of these corruption indexes for a selection of countries.

Other Data

For host country tax rate, I use the 1989 number because tax rates did not change very much over 1989–91. The actual measure is the minimum of two numbers: the statutory marginal tax rate on foreign corporations as reported by Price Waterhouse[3] (1990) and the actual average tax rate paid by foreign subsidiaries of American firms in that country. Data on twenty-eight of the host countries are taken from Desai and Hines (1996, app. 2). The rest were obtained using the Price Waterhouse source with the kind assistance of Mihir Desai.

GDP data come from the International Monetary Fund's (IMF's) *International Financial Statistics* database. In a few cases where GDP data are not available, GNP data are substituted. Wage data are obtained from the International Labor Organization (1995).

Bilateral distance data measure "greater circle distances" between economic centers in source-host pairs. The dummy on linguistic tie takes the value one if the source and host countries have a common language and zero otherwise. Both sets of data were used in Frankel, Stein, and Wei (1995).

2. The four surveys are Business International (1988); Political Risk Service, East Syracuse, New York (1988); World Competitiveness Report, Institute for Management Development, Lausanne (1992); and Political and Economic Consultancy, Hong Kong (1992).

3. See Price Waterhouse website on corporate taxes around the world: http://www.i-trade.com/infosrc/pw/corptax/toc.htm.

Table 8.5 **Corruption Ratings for Selected Countries (0–10 scale)**

Country	TI 1988–92	TI 1997	BI 1980–83	GCR 1997
Asian countries				
China	5.29	7.12	n.a.	5.86
Singapore	0.84	1.34	1.00	1.77
Hong Kong	3.13	2.72	3.00	2.17
Japan	2.75	3.43	2.25	2.96
Taiwan	4.86	4.98	4.25	4.60
Malaysia	4.90	4.99	5.00	5.67
South Korea	6.50	5.71	5.25	6.20
Thailand	8.15	6.94	9.5	7.93
Philippines	8.04	6.95	6.5	7.94
India	7.11	7.25	5.75	7.30
Indonesia	9.43	7.28	9.50	7.94
Pakistan	8.10	9.20	7.00	n.a.
Non-Asian countries				
Canada	1.03	0.90	1.00	2.37
United Kingdom	1.74	1.72	1.75	1.93
Germany	1.87	1.77	1.50	2.61
United States	1.24	2.39	1.00	2.41
France	2.55	3.34	1.00	3.51
Mexico	7.77	7.34	7.75	6.24
Kenya	8.40	7.70	6.50	n.a.
Colombia	9.29	7.77	6.50	7.41
Russia	6.73	7.73	n.a.	7.61
Nigeria	9.33	8.24	8.00	n.a.

Note: In the original Business International (BI), Transparency International (TI), Global Competitiveness Report (GCR) indexes, small numbers imply more corruption. All the indexes in the table have been rescaled so that large numbers imply more corruption. For the BI and TI indexes, the values in the table are 11 minus the original scores; for the GCR index, the values in the table are 8 minus the original scores, times 10/7.

"Regulatory burden" is a subjective measure from Freedom House. Its relatively small country coverage would reduce the sample size significantly in regressions that include it as a regressor. "Easy access to domestic capital markets" and "infrastructure efficiency" are subjective measures from the *Global Competitiveness Report 1996.*

8.3.2 Econometric Specification

One could run an ordinary least squares (OLS) specification of the following sort:

$$\ln \mathrm{FDI}_{ij} = X_{ij}\beta + u_{ij},$$

where FDI_{ij} is the stock of foreign investment from source country i to host country j and X is a vector of regressors including the host country's GDP in logarithm and the distance between the source and host countries in logarithm. Experience indicates that, in analogy to the gravity specifi-

cation on trade flows, the logarithmic transformation of both sides of the equation (of the dependent variable and of most of the regressors), called the double-log linear specification, produces the best functional fit.

Many host countries receive no direct investment from some source countries. A serious drawback of the double-log linear specification is that zero-FDI observations are dropped by this specification. It is natural to think about using a Tobit specification to replace the OLS. The problem there is that the simple Tobit specification conflicts with the double-log transformation, because the log of zero is not defined. To deal with this problem, I will employ the following specification in this paper:

$$\begin{aligned} \ln(\mathrm{FDI}_{ij} + A) &= X\beta + u_{ij}, \qquad \text{if } X\beta + u_{ij} > \ln A, \\ &= \ln A, \qquad \text{if } X\beta + u_{ij} \leq \ln A, \end{aligned}$$

where A is a threshold parameter to be estimated and u is an i.i.d. normal variate with mean zero and variance σ^2. In this specification, if $X\beta + u$ exceeds a threshold value, $\ln A$, source country i accumulates a positive stock of investment in host country j; otherwise, the realized foreign investment is zero (and the desired level could be negative). I use the maximum likelihood method to estimate this equation. Eaton and Tamura (1996) pioneered a version of this specification. Wei (1997a) provided a derivation of the likelihood function.

In actual implementation, I will use a quasi-fixed-effects specification. That is, all regressions will include source country dummies, which take care of all source-country-specific characteristics such as size, level of development, propensity to invest abroad, and possibly idiosyncratic definition of outward FDI. Aside from source country dummies, the list of regressors will include various variables for host country characteristics and source-host pair characteristics.

8.3.3 Regression Results and Interpretation

Basic Findings

Column (1) of table 8.6 provides a benchmark regression. Aside from source country dummies, the list of regressors includes corruption, marginal tax rate, a dummy for the host country's being an OECD member, two measures of the size of the host country (namely, GDP and population, both in logarithmic form),[4] log distance between the economic centers of the source and host countries, and a dummy for whether the source and the host have a common linguistic tie and a historical colonial tie. On

4. One may prefer to include log GDP and log GDP per capita instead. The coefficients on these two variables would be a linear combination of the two coefficients on log GDP and log population.

Table 8.6 **China as a Host of FDI**

Variable	(1)	(2)	(3)	(4)	(5)
Corruption	−0.13*	−0.011	−0.14*	−0.12#	−0.13
	(0.04)	(0.108)	(0.06)	(0.07)	(0.15)
Corruption^2		−0.013			0.0025
		(0.009)			(0.0115)
Tax	−2.72*	2.55	−2.75*	−2.81*	−1.82
	(0.66)	(1.98)	(0.65)	(0.72)	(1.77)
Tax^2		−9.55*			−8.21*
		(4.03)			(3.61)
China	−1.15*	−1.59*	−0.74#	−1.30*	−1.25*
	(0.35)	(0.44)	(0.41)	(0.41)	(0.47)
East Asia				−0.21	
				(0.45)	
East Asia × Corruption				0.07	
				(0.06)	
OECD	0.26##	0.30#	0.27#	0.46#	0.39##
	(0.17)	(0.17)	(0.17)	(0.26)	(0.27)
log Wage				−0.24	−0.21
				(0.20)	(0.20)
OECD × log Wage				−0.09	−0.08
				(0.14)	(0.14)
	0.30*	0.21*	0.28*	0.50*	0.47*
	(0.11)	(0.09)	(0.14)	(0.20)	(0.19)
log Population	0.30*	0.40*	0.84	0.06	0.09
	(0.11)	(0.13)	(1.35)	(0.17)	(0.18)
(log Population)^2			−0.015		
			(0.037)		
log Distance	−0.11	−0.12##	−0.11	−0.16#	−0.15#
	(0.08)	(0.08)	(0.08)	(0.08)	(0.08)
Linguistic tie	0.72#	0.76#	0.71#	0.85*	0.89*
	(0.39)	(0.39)	(0.39)	(0.42)	(0.42)
A	8.6E+9*	8.6E+9*	8.6E+9*	9.3E+9*	9.1E+9*
	(1.1E+7)	(6.6E+6)	(7.6E+6)	(5.8E+6)	(4.8E+6)
σ	1.01*	1.00*	1.00*	0.98*	0.99*
	(0.17)	(0.17)	(0.17)	(0.17)	(0.17)
Source dummies	Yes	Yes	Yes	Yes	Yes
N	286	286	286	231	231
Log likelihood	1,288.5	1,292.1	1,288.9	1,124.2	1,121.6

Note: Numbers in parentheses are standard errors. All coefficients and standard errors have been multiplied by 1,000. All regressions include a constant and source country dummies whose coefficients are not reported.

*Significantly different from zero at the 5 percent level.

#Significantly different from zero at the 10 percent level.

##Significantly different from zero at the 15 percent level.

top of that, a dummy for China as host country is added to see whether China receives more or less FDI than predicted by the model.

The coefficients on both corruption and tax rate are negative and statistically significant, indicating that more corruption or higher taxes tend to discourage foreign investment. The coefficients on log GDP and log population are positive, significant, but less than one, suggesting that larger economies receive more FDI, although the increment in FDI is less than proportional to the increment in country size. The coefficient on log distance is negative but insignificant. That on the linguistic dummy is positive, significant, and quantitatively large.

The key variable of interest is the dummy for China as host country for FDI from these seven major source countries. The coefficient on this variable is -1.15 and statistically significant at the 5 percent level. In other words, controlling for these regressors, China is a significant underachiever as a host of FDI. The nonlinear nature of the specification prevents an intuitive interpretation of how much smaller FDI in China is relative to its potential. But the quantitative effect is large. Taking the point estimates on the China dummy and the tax variable literally, one needs to raise the tax rate by 42 percentage points ($= 1.15/0.0272$) in order to reduce FDI in a country that is otherwise identical to China (in terms of the values of the regressors) to the level that actually went into China in 1993.

The relative quantitative effect of corruption on FDI is also significant. A one-step worsening in the TI corruption rating would be equivalent to raising the marginal tax rate by 4.78 percentage points (see Wei 1997a). An increase in the host country corruption rating from the Singapore level (TI value = 1) to the China level (TI index = 6) has the same effect on inward FDI as raising the tax rate by 23.9 percentage points ($= 4.78 \times 5$). In other words, (perceived) corruption in China is likely to have significantly discouraged FDI.

The benchmark specification in column (1) of table 8.6 assumes that the effects of corruption and the tax rate are linear. In column (2), squared values of both corruption and the tax rate are added to check for the presence of nonlinearity. Neither corruption nor corruption squared is statistically significant, suggesting that there is no nonlinear effect from corruption. On the other hand, tax squared does have a negative and significant effect, although the level effect becomes insignificant. The estimated coefficient on the China dummy remains negative (-1.59) and statistically significant.

It is interesting to note that the coefficient on the host country population term is less than one. This suggests that while inward FDI increases with population size, it does so less than proportionally.

To see a possibly nonlinear effect from host country population size on inward FDI, in column (3) squared log population is included as an additional regressor. The coefficient on the China dummy does get smaller

but remains negative and statistically significant at the 10 percent level. However, neither the log population variable nor its square has a statistically significant coefficient. So in subsequent regressions, I will drop the squared term.

In columns (4) and (5), log wage and an interactive term between log wage and the OECD dummy are added. Because wage data are missing for some host countries, this reduces the sample size quite a bit. In any case, the coefficient on log wage is negative, consistent with the idea that countries with low labor costs attract more FDI, but the effect is not statistically significant. In the regression reported in column (4), we also add a dummy for East Asian developing country host and an interactive term between the East Asia dummy and the corruption measure. The objective is to test the hypothesis that the effect of corruption on FDI is smaller for East Asian developing hosts. The coefficient on the interactive term is a small positive number but statistically insignificantly different from zero. Hence, East Asian exceptionalism with respect to the effect of corruption on FDI is not supported by the data.[5]

Are American and Japanese Investors Different?

I now look at whether American and the Japanese investors react to host country corruption in ways that may differ from the response of average OECD investors. Specifically, the United States has a unique law—the Foreign Corrupt Practices Act of 1977—that prohibits its firms from bribing foreign officials. Violators can be fined or put in jail. Until very recently, the United States was the only major source country in the world that criminalized the act of bribing a foreign official.[6] For many other major source countries, bribes paid to foreign officials not only are not illegal but in fact are tax deductible as legitimate business expenses. The uniqueness of the United States leads one to think that American firms may be particularly averse to corruption in foreign host countries.[7]

Japan, on the other hand, is said to have a culture of substantial "gift exchange" between firms and government officials even in the purely domestic context. This might translate into some comparative advantage for Japanese businesses in corrupt foreign countries. In other words, Japan may be less sensitive to foreign corruption than an average source country.

Column (1) in table 8.7 puts these hypotheses to the test. Two more variables are added to the basic specification: an interactive variable be-

5. This agrees with the finding of Wei (1997a) on an earlier data set.

6. Britain claims to have a law that specifies the same thing. The law is apparently not enforced.

7. Hines (1995) found a negative association between the size of U.S. direct investment in a country and that country's corruption rating according to the BI index. While finding that FDI in general is negatively related to host country corruption, Wei (1997a) did not find a statistically significant difference between American and other OECD investors.

Table 8.7 Are American and Japanese Firms Special?

Variable	(1)	(2)[a]
Corruption	−0.13*	−0.13*
	(0.05)	(0.04)
Tax	2.90	2.73
	(2.10)	(1.99)
Tax^2	−10.23*	−9.64*
	(4.15)	(3.93)
China	−1.38*	−1.20*
	(0.40)	(0.38)
U.S. × Corruption	−0.27*	−0.25*
	(0.10)	(0.10)
Japan × Corruption	0.04	0.04
	(0.05)	(0.05)
OECD	0.27	0.25##
	(0.18)	(0.17)
log GDP	0.25*	0.24*
	(0.11)	(0.11)
log Population	0.39*	0.36*
	(0.12)	(0.12)
log Distance	−0.15##	−0.14##
	(0.09)	(0.09)
Linguistic tie	0.77#	−0.72##
	(0.40)	(0.37)
A	8.1E+9*	8.6E+9*
	(7.7E+6)	(1.8E+7)
σ	1.03*	0.97*
	(0.17)	(0.16)
Source dummies	Yes	Yes
N	286	286
Log likelihood	1,284.8	1,284.8

Note: Numbers in parentheses are standard errors. All coefficients and standard errors have been multiplied by 1,000. All regressions include a constant and source country dummies whose coefficients are not reported.

[a]In col. (2), FDI into China has been multiplied by five.

*Significantly different from zero at the 5 percent level.

#Significantly different from zero at the 10 percent level.

##Significantly different from zero at the 15 percent level.

tween the U.S. source country dummy and the corruption measure, and a similar interactive variable between the Japan source country dummy and the host country corruption measure. If American investors are more averse to foreign corruption than investors from an average source country, the coefficient on the first interactive variable should be negative and statistically significant. If Japanese investors are less sensitive to foreign corruption than investors from an average source country, one expects to find a positive and significant coefficient on the second interactive variable.

The results reported in column (1) support the first hypothesis but not the second. In other words, American investors are more discouraged from investing in corrupt host countries than average investors.

While the coefficient on the China dummy is still negative and significant, it is noteworthy that its absolute value is smaller than the corresponding coefficient in column (2) of table 8.6. In other words, taking into account American investors' aversion to foreign corruption is a step toward understanding the gap between China's actual reception of FDI and its potential as predicted by the model in columns (1) and (2) of table 8.6.

Measurement Errors on FDI into China

We mentioned the possibility that FDI in China from the major source countries may be underreported in the OECD database (specifically, OECD numbers tend to be a lot smaller than the numbers China reports in its official statistics). Note that if a particular OECD country adopts a definition of FDI that merely underreports its FDI abroad, it would underreport FDI to all destination countries by the same or a similar factor, which would not explain the negative China coefficient here. Although there is no evidence to think so, let us assume that for some reason, FDI in China from the major source countries is underreported by a larger extent than is FDI in other countries. To see if China's underachievement as a host can be explained by this assumption, I conduct an entirely arbitrary exercise: I multiply all FDI in China by a factor of five while keeping FDI in other host countries intact and rerun the regression reported in column (1) of table 8.7. The results are reported in column (2) of table 8.7.

As one might expect, the absolute value of the coefficient on the China dummy—a measure of the gap between China's actual inward FDI and its potential—declines from 1.38 to 1.20. But multiplying actual FDI in China by five is not enough: the gap is still negative and statistically significant at the 5 percent level.

The Hong Kong Connection

It is often remarked that Hong Kong is a mecca for FDI. It seems possible that in part because investors from the major source countries loathe the corrupt situation on the mainland, they invest heavily in Hong Kong as a stepping stone toward or substitute for investing in mainland China. Indeed, part of Hong Kong investment in China may have been made on behalf of investors from the major source countries.

We examine this possibility. In column (1) of table 8.8, a dummy for Hong Kong as host country is added to the regression. As one expects, the coefficient is positive (0.46) and statistically significant, indicating that Hong Kong is an overachiever as a host of FDI.

To see if the Hong Kong connection helps to solve the puzzle of China's underachievement, I redefine all FDI in Hong Kong from the major

Table 8.8 **The Hong Kong Connection**

Variable	(1)	(2)[a]	(3)[b]	(4)[c]
Corruption	−0.13*	−0.13*	−0.13#	−0.14*
	(0.05)	(0.05)	(0.05)	(0.05)
Tax	3.24	3.03	3.01##	2.89*
	(2.15)	(2.05)	(2.05)	(2.00)
Tax^2	−10.63*	−10.01*	−10.06*	−9.78*
	(4.22)	(4.03)	(4.01)	(3.93)
China	−1.52*	−1.04*	−0.93*	−0.49*
	(0.40)	(0.42)	(0.44)	(0.50)
Hong Kong	0.46*			
	(0.18)			
U.S. × Corruption	−0.30*	−0.24*	−0.23*	−0.19#
	(0.12)	(0.10)	(0.10)	(0.11)
OECD	0.29##	0.30#	0.30#	0.30##
	(0.19)	(0.18)	(0.18)	(0.18)
log GDP	0.23*	0.22*	0.22*	0.22*
	(0.11)	(0.11)	(0.11)	(0.11)
log Population	0.41*	0.40*	0.40*	0.39*
	(0.13)	(0.12)	(0.12)	(0.12)
log Distance	−0.16#	−0.15#	−0.15#	−0.14#
	(0.09)	(0.08)	(0.08)	(0.08)
Linguistic tie	0.79#	0.74#	0.74#	0.71#
	(0.41)	(0.40)	(0.40)	(0.39)
A	8.1E+9*	8.5E+9*	8.5E+9*	8.7E+9*
	(5.9E+7)	(5.6E+6)	(3.5E+6)	(4.8E+6)
σ	1.01*	1.00*	1.00*	0.99*
	(0.16)	(0.16)	(0.17)	(0.16)
Source dummies	Yes	Yes	Yes	Yes
N	286	279	279	279
Log likelihood	1,286.4	1,252.4	1,259.0	1,254.8

Note: Numbers in parentheses are standard errors. All coefficients and standard errors have been multiplied by 1,000. All regressions include a constant and source country dummies whose coefficients are not reported.

[a]In col. (2), FDI in Hong Kong is counted as a part of FDI in China. Hong Kong as a host country is excluded from the sample.

[b]In col. (3), constructed FDI in China is FDI in Hong Kong, plus five times original FDI in China.

[c]In col. (4), constructed FDI in China is FDI in Hong Kong, plus twenty times original FDI in China.

*Significantly different from zero at the 5 percent level.

#Significantly different from zero at the 10 percent level.

##Significantly different from zero at the 15 percent level.

source countries as part of FDI in China from the same source countries and exclude from the regression those observations in which Hong Kong is a host. The results are presented in column (2) of table 8.8. While the coefficient on the China dummy drops substantially (from −1.52 to −1.04), it remains negative and significant.

In column (3) of table 8.8, I reconstruct bilateral FDI in China as original FDI in China as reported by the source countries multiplied by five, plus bilateral FDI in Hong Kong from the same source countries. The coefficient on the China dummy again drops (to −0.93) but is still significantly different from zero. In column (4), I reconstruct yet again bilateral FDI in China, as FDI reported by the source countries multiplied by twenty, plus actual FDI in Hong Kong. The coefficient on the China dummy this time is statistically insignificant (although still negative). All of these experiments are completely arbitrary. They serve to show that the gap between actual FDI in China and potential FDI as defined by these regressions is enormous.

Adding Regulatory Burdens and Other Factors to the Regressions

As a final exercise, we add host country labor cost, regulatory burden, ease of access to domestic capital markets by foreign-invested firms, and efficiency of infrastructure to the regressions. In this exercise, FDI in Hong Kong is counted as a part of FDI in China, but original FDI in China is not amplified. All four new variables have missing observations for some host countries, and therefore, the sample size is reduced. The results are presented in table 8.9.

When just log wage in the host country is added to the regression, in column (1), it has a negative coefficient that is statistically significant at the 10 percent level. When a measure of regulatory burden is added to the regression, reported in column (2), it has a statistically significant and negative coefficient (−0.34). It is noteworthy that the coefficient on the China dummy now becomes statistically insignificantly different from zero.

In column (3), an index for easy access to domestic capital markets by foreign-invested firms and another index for infrastructure efficiency are added. Neither is statistically significant. Indeed, both have wrong signs.

The measure of regulatory burden and the TI corruption index are positively correlated (with a correlation coefficient of .6). Shleifer and Vishny (1994) and Kaufmann and Wei (1999) have argued that the burden of regulation is often imposed or maintained by corruption-prone officials to facilitate the extraction of bribes. In that sense, the severity of the regulatory burden can be taken as an indirect measure of the severity of corruption.

8.4 Concluding Remarks

While the absolute value of FDI in China in recent years looks very impressive, it masks an unusual composition of source countries. A significant

Table 8.9 **Regulatory Burden and Other Obstacles to FDI**

Variable	(1)	(2)	(3)
Corruption	−0.07	0.07	0.04
	(0.05)	(0.07)	(0.09)
Tax	1.92	5.04#	6.29##
	(1.90)	(2.84)	(3.91)
Tax^2	−8.40*	−14.32*	16.82
	(3.62)	(5.71)	(7.74)
China	−0.93*	−0.47	−0.84
	(0.44)	(0.48)	(0.86)
U.S. × Corruption	−0.20*	−0.30*	−0.31
	(0.09)	(0.13)	(0.13)
OECD	0.22	0.52#	0.66##
	(0.18)	(0.28)	(0.43)
log Wage	−0.34#	−0.23	−0.31
	(0.20)	(0.23)	(0.28)
Regulatory burden		−0.34*	−0.36#
		(0.17)	(0.20)
Easy access to domestic capital markets			−0.12
			(0.24)
Infrastructure efficiency			−0.09
			(0.27)
log GDP	0.56*	0.44#	0.48#
	(0.24)	(0.25)	(0.28)
log Population	−0.015*	0.11	0.07
	(0.215)	(0.27)	(0.30)
log Distance	−0.16*	−0.07	−0.07
	(0.08)	(0.10)	(0.10)
Linguistic tie	0.89*	1.08*	1.13*
	(0.44)	(0.48)	(0.50)
A	9.1E+9*	9.4E+9*	9.2E+9*
	(3.5E+6)	(9.6E+6)	(3.8E+6)
σ^2	0.97*	0.98*	1.01*
	(0.16)	(0.16)	(0.17)
Source dummies	Yes	Yes	Yes
N	224	170	170
Log likelihood	1,082.4	834.4	837.9

Note: Numbers in parentheses are standard errors. All coefficients and standard errors have been multiplied by 1,000. All regressions include a constant and source country dummies whose coefficients are not reported. Constructed FDI in China is FDI in Hong Kong plus original FDI in China.

*Significantly different from zero at the 5 percent level.

#Significantly different from zero at the 10 percent level.

##Significantly different from zero at the 15 percent level.

fraction (maybe 15 percent of Hong Kong investment in China can be round-tripping mainland capital in disguise. This should be counted as false-foreign direct investment and should be deleted from statistics on FDI in China.

The remaining part of Hong Kong investment in China should be regarded as quasi-foreign direct investment, for Hong Kong has always been a special extension of China even under British rule and has since 1 July 1997 been legally part of China. Taking out these two parts would reduce the annual flow of FDI into China in recent years by half, and the stock by 60 percent.

Using cross-country data on bilateral stocks of FDI from the seven most important source countries in the world, one can estimate the potential amount of inward FDI for a host country such as China. Compared with its model-predicted potential, China is found to be a significant underachiever as a host of FDI from the major source countries. The gap is huge. China's relatively high corruption discourages FDI by a significant amount. The regulatory burden in China may be another important impediment that discourages investors from the major source countries from investing more in China.

Appendix

Table 8A.1 **FDI Flow into China: Chinese versus Source Country Statistics**

Country	1990	1991	1992	1993	1994	1995	Units
United States							
OECD report	30	40	74	556	745	436	Million US$
Chinese report	455.99	323.20	511.05	2,063.12	2,490.80	3,083.01	Million US$
Japan							
OECD report	349	579	1,070	1,691	2,565	3,834	Million US$
Chinese report	503.38	532.50	709.83	1,324.10	2,075.29	3,108.46	Million US$
Germany							
OECD report	–	115	233	112	471	627	Million marks
OECD report (US$)	–	75.86	144	64.88	304.11	437.39	Million US$
Chinese report	64.25	161.12	88.57	56.25	258.99	386.35	Million US$
United Kingdom							
OECD report	–	17	20	21	8	54	Million pounds
OECD report (US$)	–	31.80	30.24	31.11	12.5	83.7	Million US$
Chinese report	13.33	35.39	38.33	220.51	688.84	914.14	Million US$
France							
OECD report	−11	463	296	505	607	693	Million francs
OECD report (US$)	−2.14	89.38	53.75	85.66	113.54	141.43	Million US$
Chinese report	21.06	9.88	44.93	141.41	192.04	287.02	Million US$
Australia							
OECD report	–	–	–	16	50	33	Million AU$
OECD report (US$)	–	–	–	10.83	38.84	24.59	Million US$
Chinese report	24.87	14.91	35.03	109.96	188.26	232.99	Million US$

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Comment Mari Pangestu

This interesting paper enriches our understanding of the many facets of FDI in China and in particular questions the perception of China as a

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"magnet" for FDI. Wei aims to show that the gap between actual FDI in China and the potential amount from major source countries is large—or, contrary to what is perceived, that China is an "underachiever" as a host country of FDI from major source countries due to its corruption and regulatory burden.

However, the motivation for the paper, that is, why one should be concerned that China may be an underachiever with respect to FDI from source countries but an overachiever with respect to FDI from Hong Kong, Taiwan, Macao, and Singapore, is not obvious. One can postulate three possible reasons for concern. First is the quantity of FDI. The notion would be that China is not receiving enough FDI (after adjusting for Hong Kong investment that is "domestic"), whether measured as a shortfall between domestic savings and domestic investment or whether the quantity of FDI is small relative to the size of China.

Second is the diversity of FDI. If investment is dominated by Hong Kong, Macao, Taiwan, and Singapore, China may be too dependent on these sources. Such reasoning could be partly political and partly economic. Economically speaking, the type of investment from these source countries could differ from that from major source countries.

Related to the above point, a third reason is the notion that FDI from the major source countries is "different" from domestic investment and FDI from Hong Kong, Taiwan, Singapore, and Macao. FDI from major source countries could be preferable for various reasons normally argued to be the benefits of FDI: technology transfer, management and technology spillovers, demand for greater transparency, competition, and access to export markets. It is not clear whether the FDI numbers included in this study cover all FDI in China or whether they exclude certain sectors such as oil and gas. This distinction is important because it is likely that FDI from the major source countries dominates some sectors, such as oil and gas and mining, where these countries are likely to have firm-specific advantages.

The reason for investment from one set of source countries differing qualitatively from investment from another set is not self-evident. While the amount of domestic investment must be taken out of Hong Kong investment coming into China because of round-tripping and stop-tripping—or investment coming through Hong Kong to avoid corruption—should be subtracted, is the remaining pure Hong Kong investment qualitatively not desirable? After all, there has been a lot of synergy between Hong Kong and China, with the former having much higher technological capability and the latter providing lower cost labor, land, and infrastructure, as well as a large market. Furthermore, it is not self-evident that stop-tripping happens mainly because of corruption. FDI destined for China might go through Hong Kong because Hong Kong is a major

financial and service center, and many firms have their regional headquarters in Hong Kong. So FDI entering China through Hong Kong could be based on synergy with existing activities in Hong Kong and proximity to the financial center and other infrastructure.

Once it is statistically established that FDI from major source countries in China is less than its potential, the results of the analysis could be improved by looking at which main factor explains the underachievement. Besides corruption and the other factors tested, it is possible that there are still other factors, such as lack of intellectual property protection and weak enforcement of contracts.

The data used in the study are for 1993. It is possible that updating the data to 1994–96 would yield different results because there was considerable outward investment from Japan in those years. Another way to push the analysis is to take China as a dummy compared with other countries as dummies—for example, Indonesia, one of China's main competitors for FDI from major source countries. Is Indonesia more or less of an underachiever, and what are the explanatory factors for its greater or lesser underachievement?

A final point: if the result is that underachievement is due to China's corruption and regulatory burden, then for the paper to be useful it should identify policy implications. For instance, China's attractiveness as a big market and source of low-cost labor is marred by its corruption and regulatory burden. Therefore, if the motivation is to increase FDI from major source countries for whatever reason, the priorities for policy would be to reduce corruption and the regulatory burden. Since it will take time for these policies to take effect, especially if corruption cannot be uprooted at once, it is also important to identify interim measures that can be introduced (e.g., one-stop administration of FDI and regulations facing foreign investors).

Comment Akira Kohsaka

In this paper Wei examines the determinants of bilateral FDI stocks in 1993 from seven major OECD source countries to forty-two host economies, including China and Hong Kong. He concludes that China was an "underachiever" in attracting FDI from the seven countries within the framework of his empirical model. In 1994, Wei presented a paper at the NBER–East Asia Seminar on Economics in which he followed the same

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line of argument by examining the determinants of FDI flows in the years 1987–90 from five OECD countries (Wei 1996). What is the difference between the two papers?

First, he now uses a statistically more sophisticated estimation method with Tobit specification on the data set. Second, he scrutinizes more deeply the determinants of FDI by adding some explanatory variables related to the general business environment in the host economy; these include tax levels, degree of corruption, and other factors. Third, even though he starts his analysis with mainland China (table 8.6), he ends up consolidating China with Hong Kong as a host economy (tables 8.8 and 8.9).

I sympathize with Wei's goal of evaluating the accuracy of the popular view of China as a world magnet for FDI, and I find appealing the claim that China has in fact been an underachiever and can or will be a larger FDI absorber. As far as his analysis goes, however, I cannot help having a few reservations about his conclusion.

Let me begin my argument from within his data set as well as his analytical framework. To start, look at columns (2) and (3) of table 8.9. We find a significant negative effect of regulatory burden on FDI on one hand and insignificant (and wrongly signed) tax and corruption variables on the other. This is not surprising because all of them could be positively correlated one another, reflecting unfavorable general business environments in host economies. On top of that, we must note that the China dummy becomes insignificant, though negative, which suggests that FDI to "China" by the OECD-7 does not deviate from what the model predicts, or that China is not an underachiever contrary to the author's claim.

I am not necessarily saying that his claim is negated by his own results, but I would like to suggest we should be more careful in interpreting this series of his estimation results on two points.

One point concerns missing explanatory variables. In addition to ordinary determinants of FDI, such as those related to host economy size and physical and cultural distance between host and source countries, the author picks up variables related to general business environment in the host economy: taxation, corruption, wages, regulatory burden, access to domestic capital markets, and infrastructure efficiency. He could add others related to locational advantages and disadvantages. The problem is that these variables are more or less closely correlated with each other, and we generally cannot tell which of them matters most and is first to be tackled. Furthermore, this correlation problem is most serious with those variables based on subjective evaluations, such as corruption and regulatory burden.

The other point concerns his enlarged definition of China as a host economy that includes Hong Kong. The probable overstatement of FDI data on the Chinese side has been frequently mentioned and is well

known. This is because of the *round-tripping* of Chinese capital as well as the *short-tripping* of other foreign capital, that is, because of the very nature of Hong Kong as an entrepôt not only in goods but in capital flows. So one idea is to focus only on "direct" FDI by the OECD countries to China. Yet once you add Hong Kong to greater China as a host of FDI, all the ambiguity and complexity revive. The business environments in the two economies were (and are) quite distinct. We cannot tell what portion of FDI by OECD countries was meant to reach China through Hong Kong and what portion was intended for Hong Kong on its own.

Now, I turn to general issues about Wei's framework as well as his data set. The deficiency or overstatement of FDI in China has been frequently mentioned. But it cannot be denied that Hong Kong has been the largest source economy for FDI in China. Although it would be difficult to identify the ultimate nationalities of Hong Kong capital invested in China, the fact that it does not matter is the raison d'être of Hong Kong. Above all (except for round-tripping Chinese capital motivated by domestic distortions), as correctly put by Deng Xiaoping, it does not matter who brings in capital but how. If this is the case, whether China is an under- or overachiever might have policy implications worth probing, and then the exclusion of Hong Kong as a source economy is not justified except for reasons of data availability.

As is well known, China became the largest FDI absorber among the developing economies as late as 1993. Until then, it had never been taken seriously as a significant absorber of FDI. Apparently, before 1993, no one spoke of "China fever" (*Economist,* 1 March 1997, 38, U.S. edition) or "The world's strongest magnet" (*Journal of Commerce,* 27 December 1996, 3A). What can we say about such comments with a data set of FDI stock figures in 1993? Probably not much. Rather, I would like to see what Wei will come up with on the basis of a more recent data set. If he finds again that China is underachieving as an FDI absorber, it would really be a surprise.

Reference

Wei, Shang-Jin. 1996. Foreign direct investment in China: Sources and consequences. In *Financial deregulation and integration in East Asia,* ed. Takatoshi Ito and Anne O. Krueger. Chicago: University of Chicago Press.