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Promoting exports The role of inward FDI in China☆

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Abstract

Since the late 1970s, exports and inward foreign direct investment (FDI) in China have risen dramatically under the open-door policy. The critical role of FDI in China's exports may be indicated by the fact that exports by foreign affiliates in China in 1998 were US$81 billion, comprising 44% of China's total exports in that year. While there is considerable evidence on the FDI export linkage in China, systematically empirical analyses have been limited. This paper investigates the issue using panel data at the provincial level in the period of 1986–1997. The findings support the widely held belief that increased levels of FDI positively affect provincial manufacturing export performance.

JEL classification: F21; F23; O53

Keywords: Foreign direct investment; Exports

1. Introduction

In recent years, few developments in the world economy have been more important than the emergence of China as an exporting center as well as an attractive site for foreign direct investment (FDI; Naughton, 1996). Particularly, the role of FDI in China's export performance has burgeoned in ways that no one anticipated in the two decades since the economic reform was initiated in the late 1970s.

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The phenomenal growth of exports and its link with inward FDI flows may be suggested by following indications. Between 1984 and 1997, the nominal value of exports grew 16% annually while manufactured exports grew 21% per year. While China accounted for only 0.75% (valued as US$9.7 billion) of world exports in 1978, the share rose to 3.3% (valued as US$182.8 billion) in 1997 (WTO, 1998). By 1994, China exported manufactured goods worth more than US$100 billion and was the eighth largest exporter in the world (IMF, 1998). Changes in FDI flows into China and FDI's contributions to exports are even more astonishing. From an almost isolated economy in late 1970s, China has become the largest recipient of FDI among the developing world and globally the second only to the U.S. since 1993. FDI flows into China in 1997 totaled US$200 billion, which constitutes 31% of total FDI in all developing countries (UNCTAD, 1998). The share of foreign affiliates' exports in total China's exports increased from negligible in the early 1980s (0.27% in 1984) to 20% (value of US$17.4 billion) in 1992, and then 41% (US$74.9 billion) in 1997. In 1998, the value of exports by foreign affiliates was US$81 billion, constituting 44% of China's total exports, with even higher shares in manufactured exports (SSB, 1999).

There has been a growing literature on the role of FDI in Chinese economy and its export (for example, Branstetter & Feenstra, 1999; Chan, Tracy, & Zhu, 1999; Lardy, 1992, 1994; Naughton, 1996; Zhang, 1998, 1999, 2000a) and the theoretical link between FDI and host export performance (for example, Markusen, Venables, Konan, & Zhang, 1996; Zhang, 2000b; Zhang & Markusen, 1999). Most of the studies on effects of FDI on exports, however, offer qualitative analyses on the issue. Empirical work has been limited, partly due to the difficulty of obtaining systematic relevant data. This study seeks to close up the gap in the literature by investigating the issue with panel data at the provincial level in the period of 1986–1997. The findings support the widely held belief that increased levels of FDI positively affect provincial manufacturing export performance.

The rest of the paper is organized as follows. Section 2 provides some stylized facts of the export and FDI patterns in China. In Section 3, the conventional views on the FDI export linkage are discussed in order to provide groundwork for our empirical analysis. Section 4 describes the empirical specification and explanatory variables. Main results of estimations are reported and discussed in Section 5. Section 6 concludes.

2. Some stylized facts of exports and FDI in China

The contribution of FDI in China's exports has been widely recognized. Table 1 shows the rapid growth of FDI, total exports, exports generated by foreign-invested enterprises (FIEs), and the share of exports by FIEs in total exports. The small amount of FDI in the early 1980s initially made a negligible contribution to China's total exports. As late as 1985, 6 years after the passage of China's foreign investment law and 5 years after the establishment of special economic zones, the exports by FIEs were only US$297 million, barely over 1% of China's total exports. From that modest base, they expanded dramatically, reaching about 47 billion by 1995 (32% of total exports), and even almost 89 billion in 1999, about 46% of China's total exports (see Table 1).

Table 1
FDI flows, total exports, and exports by FIEs 1980–1999

Year	FDI flows (millions of US$)	Total exports (millions of US$)	Exports by FIEs (millions of US$)	Share of exports by FIEs in total exports (%)
1980		18,119	8.2	0.05
1981		22,007	32.4	0.15
1982		22,321	52.9	0.24
1983	1802	22,226	330.4	1.49
1984	1258	26,139	68.9	0.26
1985	1661	27,350	296.7	1.08
1986	1874	30,942	582.0	1.88
1987	2314	39,437	1208.1	3.06
1988	3194	47,516	2456.4	5.17
1989	3392	52,538	4913.2	9.35
1990	3487	62,091	7813.7	12.58
1991	4366	71,910	12,047.3	16.77
1992	11,007	84,940	17,356.2	20.43
1993	27,515	90,970	25,237.2	27.51
1994	33,767	121,047	34,712.9	28.69
1995	37,521	148,797	46,875.9	31.51
1996	41,725	151,050	61,506.4	40.72
1997	45,257	182,790	74,899.9	40.98
1998	45,463	183,760	80,961.9	44.06
1999	40,390	194,791	88,630.0	45.50

The figure of FDI flows in 1983 is sum over 1979–1983. Sources: China Statistical Yearbook 1999 (SSB, 1999) and China Foreign Economic Statistical Yearbook 1998 (SSB, 1998). The data for 1999 are taken from the Chinese official newspaper, People's Daily (January 2 and 8, 2000).

The sharp rise of exports by FIEs is a result of the establishment of a program of export processing, under which inputs and components needed for the production of goods for exports were imported duty free, with a minimum of administrative interference. This can be seen from the fact that exports created by FIEs are predominantly products assembled from imported parts and components. In addition, many Chinese firms also produce processed exports using parts and components supplied by or purchased from foreign firms. In fact, the total processed exports in 1994 were already more than US$57 billion, almost half of China's exports. They comprised about 60% of US$100 billion in manufactured goods exports that year.

The fundamental factor that explains the expanding exports by FIEs has been related to China's export promotion regime in which FIEs have operated under an entirely different set of institutions and regulations from those applying to most domestic enterprises. The most important of these institutions is the duty-free processing of imported materials and components into exports. Two types of the duty-free processing trade in China may be identified: processing materials and processing imports. The processing materials may take place under a contract in which a foreign business ships materials to Chinese firms for processing or assembly and subsequent reexport. Township or village enterprises account for the bulk of export value under this arrangement (86% in 1995). In the second type of the

duty-free trade (processing imports), factories in China import materials and organize production and then export. FIEs (mainly joint ventures) account for the bulk of export value under this arrangement (about 74% in 1995).

Export processing has grown rapidly along with the growth of FIEs. In 1995, export processing accounted for half of all exports and 90% of FIE exports. Processing imports, which are dominated by FIEs, are twice as important as processing materials, so FIEs accounted for 57% of all export processing (Naughton, 1996). For example, many export-processing arrangements are made between Hong Kong firms and factories in China. Chinese factories import raw materials and semimanufactures then export finished product after

Table 2
FDI and exports by provinces, 1986–1998

	FDI		Exports	
Provinces	Flows (US$10,000)	Share (%)	Volume (US$10,000)	Share (%)
Coastal areas	22,833,729	87.70	99,748,958	85.45
Beijing	1,076,605	4.14	4,267,169	3.66
Tianjin	1,046,600	4.02	3,402,226	2.91
Shanghai	2,330,352	8.95	10,708,556	9.17
Hebei	537,622	2.06	2,796,273	2.40
Liaoning	1,164,769	4.47	7,992,510	6.85
Shandong	1,611,518	6.19	7,681,067	6.58
Jiangsu	3,127,880	12.01	6,957,052	5.96
Zhejiang	833,485	3.20	6,321,748	5.42
Fujian	2,603,471	10.00	6,590,978	5.65
Guangdong	7,363,195	28.28	40,724,345	34.89
Hainan	617,818	2.37	777,270	0.67
Guangxi	520,414	2.00	1,529,764	1.31
Inland areas	3,201,420	12.30	16,989,696	14.55
Jilin	232,966	0.89	1,300,608	1.11
Heilongjiang	308,375	1.18	1,680,305	1.44
Inner Mongolia	37,442	0.14	591,463	0.51
Shanxi	89,452	0.34	849,404	0.73
Anhui	241,892	0.93	1,236,466	1.06
Jiangxi	214,753	0.82	1,002,205	0.86
Henan	335,185	1.29	1,439,763	1.23
Hubei	459,742	1.77	1,865,469	1.60
Hunan	391,471	1.50	1,539,926	1.32
Sichuan	425,511	1.63	1,908,883	1.64
Guizhou	33,552	0.13	320,665	0.27
Yunnan	94,926	0.36	973,368	0.83
Tibet	0	0.00	10,573	0.01
Shaanxi	248,903	0.96	999,340	0.86
Gansu	38,043	0.15	334,682	0.28
Qinghai	2621	0.01	110,207	0.09
Ningxia	13,073	0.05	161,852	0.14
Xinjiang	33,513	0.13	664,517	0.57
Total	26,035,149	100.00	116,738,654	100.00

Two regions are used. Source: authors' calculation.

processing and assembling. A study reports that almost four-fifths of Hong Kong manufacturers have shifted their production to China (mainly in Guangdong province) by 1993, with about 25,000 factories and 3–4 million workers in the Pearl River Delta region of Guangdong that are engaged in outward processing for Hong Kong firms (Fung, 1998).

Another stylized fact of exports and FDI in China is their spatial concentration in the east coastal areas. Table 2 illustrates the distributions of export and FDI across provinces and between coastal and inland regions. In the period of 1986–1998, the coastal areas contributed more than 85% of all China's exports and attracted more than 85% of the total inward FDI. Research on exports and FDI spatial patterns has identified numerous factors, including agglomeration economies, market potential, taxes, physical capital stock, and human capital. Some studies argued that coastal and border regions are likely to have industrial structures that are more amenable to gains from export trade than do interior areas (Leichenko & Erickson, 1997). Song and Zhang (1999) found that the coastal areas in China are more attractive to FDI because these areas have closer overseas Chinese connections, favorable tax privilege, better physical infrastructure, and stronger agglomeration economies.

As shown in Table 2, provinces experiencing the largest exports include Guangdong, Shanghai, Laoning, and Shandong. Provinces experiencing the largest inward FDI include Guangdong, Jiangsu, Fujian, and Shanghai. Guangdong alone accounted for 35% of the total export and 28% of the total inward FDI. Running a simple regression of these export shares on FDI shares, we found a correlation coefficient of .954 with a t value of 16.78. This result strongly suggests that exports are closely associated with inward FDI.

3. Conceptual framework of FDI export links

The linkage between inward FDI and export performance of a host country has been long recognized in literature. A host country may expand its exports with hosting FDI since multinational corporations (MNCs) are thought to carry advantages in entering world markets, such as established global marketing networks. MNCs also bring in new technologies that may be diffused among host country firms, making them more competitive abroad. In general, one may distinguish between direct and indirect effects of FDI on host exports. Direct effects refer to exports by foreign affiliates themselves. The impact of FDI on export activities of local firms makes up the indirect effects (Caves, 1996; Helleiner, 1989).

3.1. Direct effects of FDI on host exports

In a discussion of the direct effects of FDI on host country exports, it is convenient to divide export activities of foreign affiliates into three categories according to production characteristics: (1) local raw materials processing; (2) new labor-intensive final product exports; and (3) labor-intensive processes and component specialization within vertically integrated international industries.

In the processing of locally produced raw materials, foreign affiliates in host countries may have better export potential than indigenous firms because of their business contacts abroad, marketing skills, superior technology, both in product and processes, and greater general

know-how. Particularly for those where most of these assets are lacking, foreign firms may be the only means, at least for the time being, of increasing exports.

There are many opportunities for host countries to become significant exporters of new labor-intensive final products, such as textiles and other consumer goods. Firms in developing countries seeking to expand their exports to world markets, however, face immense difficulties in setting up a distribution network, keeping in close touch with rapid changes in consumer tastes, mastering the technicalities of industrial norms and safety standards, and building up a new product image. In many cases, the design, packaging, distribution, and servicing of the products are as important as being able to produce them at, or below, ruling prices in world markets. The lack of such skills constitutes a key barrier to entry into the world markets for developing country exporters. MNCs may, however, help developing country exporters to enter the world markets through special arrangements to provide links to final buyers.

Exports of labor-intensive goods within vertically integrated production obviously depend on the participation of MNCs. Generally, these exports are thought of as intrafirm trade, but a great part of them are arm's-length transactions between MNCs and indigenous host country firms (Zhang & Markusen, 1999). This type of production in general is associated with processing components and assembling in which host countries import unfinished and intermediate goods. Countries that choose to specialize in labor-intensive processes and components production for MNCs also must remember that these affiliates are relatively "footloose," with little physical capital nailed down to hinder movement to the most favorable environment (Zhang, 2000b). Location decisions of this type of MNCs thus are quite sensitive to host FDI incentives, the costs of production, and the perception of risks.

3.2. Indirect effects of FDI on host exports

Foreign affiliates can also affect host country manufacturing exports in several indirect ways. For instance, local firms may increase their exports by observing the export activities of MNCs and by making use of the infrastructure of transport, communications, and financial services that develop to support those activities (Haddad & Harrison, 1993).

Another indirect effect involves the influence of FDI on the competitiveness of host country firms and diffusion of new technologies. MNCs have firm-specific advantages that enable them to compete with local firms with better knowledge of consumers, factor markets, and the favor of local governments. These firm-specific advantages in product-process technology, management, and marketing competence represent something more than simple input of capital into a host country and may influence both the structure of the host economy and performance of host country firms. By taking their firm-specific assets abroad, MNCs may increase competition in host country markets and in that way, force existing firms to adopt more efficient methods. FDI thus may improve the efficiency of host country firms through the diffusion of new technologies and management practices in host countries.

The third indirect effect is related to the linkage structure between foreign and local firms. If export-oriented foreign subsidiaries increase their purchase of inputs from the local firms as the subsidiary matures, the host country's trade balance improves (Din, 1994). Furthermore, such relationships between a foreign subsidiary and its local suppliers are also important

potential sources for technology spillovers, which may stimulate productivity improvements and the competitiveness of host country firms.

4. Empirical specification and explanatory variables

Our study examines the relationship between export performance and FDI flows across provinces of China for the period from 1986 through 1997. Export levels of provinces are modeled as a function of provincial levels of FDI and other explanatory variables. We construct a dynamic model as follows:

$$\mathrm{Log}X_{it} = f(\mathrm{LogFDI}_{i(t-1)}, \mathrm{Log}X_{i(t-1)}, \mathrm{Log}I_{i(t-1)}, \mathrm{GDPGR}_{it}, \mathrm{MS}_{it}, R_t) \quad (1)$$

where X_{it} = exports of province i in year t. $i = 1 \ldots 28$, and $t = 1986 \ldots 1997$, $\mathrm{FDI}_{i(t-1)}$ = FDI flows of province i in year $t-1$, $X_{i(t-1)}$ = exports of province i in year $t-1$, $I_{i(t-1)}$ = domestic investment of province i in year $t-1$, GDPGR_{it} = growth rate of gross domestic product of province i in year t, MS_{it} = share of manufacturing output of GDP of province i in year t, R_t = exchange rate of the Chinese currency with U.S. dollar in year t.

The coefficients on $\mathrm{LogFDI}_{i(t-1)}$, $\mathrm{Log}X_{i(t-1)}$, and $\mathrm{Log}I_{i(t-1)}$ reflect the short-run elasticity of exports with respect to each of these variables. The value of the coefficient on $\mathrm{LogFDI}_{i(t-1)}$ is of particular interest for this study, as this coefficient indicates the impact of FDI in previous year on the export performance in the next year.

The lag structure of the model is to capture the relatively longer time period, which may be required for the impacts of FDI to be felt on export performance. The effects of FDI on export performance are not likely to be felt immediately because modernization of production facilities, dissemination of new production technologies, or other changes require time to take effect. Although the first-order lag structure may not capture potential feedback between FDI and trade or longer-term impacts of FDI, the relatively short time period for the study (12 years) necessitated the use of a simple lag approach.

A lagged value of exports is included on the right hand side of the model because of significant relationships between past and future export performance. This procedure is commonly used in regional economic analyses where there may be a strong tendency for past economic trends to influence future performance (Coughlin & Cartwright, 1987).

Domestic investment is included in the model in order to separate the export effects of FDI from the export effects of investment in general. Studies of the determinants of export performance have found that domestic investment is a significant predictor of export performance. Inclusion of a domestic investment variable is thus intended to hold constant the effects of these other investment factors.

The growth rate of GDP indicates the overall economic performance of a province and export performance as well. We expect that GDP growth rate is positively related to exports. In the model, we also include a variable MS that is defined as the share of manufacturing output to GDP. Between 1984 and 1997, the nominal value of exports grew 16% annually while manufacturing exports grew 21% per year. The average share of manufactured products in the total exports during the period 1986–1997 is 75%, with a rising tendency (in 1998, the

share was 89%). Therefore, we expect that the level of manufacturing sector in a province should positively affect its export performance.

To account for possible impacts of exchange rate fluctuations, we include an exchange rate variable in the model. Exchange rates of Chinese currency fluctuated widely during the period of analysis. Relative to U.S. dollar, Chinese exchange rates increased dramatically (the currency depreciate) during the period 1986–1997, especially in the early 1990s. Although exchange rates alone do not account for long-term trends in either FDI or trade, changes in exchange rates may have short-term effects on both FDI and exports. The weakening Chinese yuan was associated with rapid growth of China's exports during this period, as Chinese goods became relatively cheap abroad. Similarly, the weakening of the Chinese yuan has been linked with increased FDI, as foreign firms sought to purchase relatively cheaper Chinese assets.

5. Data and results

Data used in this paper are panel data, covering three central municipalities and 24 provinces in the period of 1986–1997. They come from three sources. The first source provides information on GDP, FDI, exports, industrial outputs, etc. (SSB, 1996). The second source provides information on exchange rates between U.S. dollars and Chinese yuan for the period of 1985–1997. The third source (SSB, 1998, 1999) gives information for the last 2 years, 1996 and 1997. Since Chongqing became the fourth central municipality in 1997, we added it back to Sichuan in our data analysis. Due to many missing data on FDI for Qinghai, Tibet, and Ningxia, we exclude these three provinces from our regression, which results in a total panel observation number of 282. In our following regression analyses, real values are used in calculations of growth rate, logarithm of GDP, and logarithm of domestic investment.

Before we present and discuss our empirical results, it is necessary to comment on some econometric issues related to our model and estimation. First, when cross-sectional and time series data are combined in the estimation, certain effects specific to individual regions and years may be found in the data. Instead of assuming fixed regional effects, we incorporate individual region-effect variables into the error term, so that $u_{it} = \mathrm{v}_i + \epsilon_{it}$, v_i denotes the ith province's year-invariant unobserved heterogeneity (which we assume to be random, independent, and identically distributed) and ϵ_{it} is the remainding disturbance. We estimate our panel model with random effects also because our inferences will be made about the population. Effects are more appropriately considered random when inferences are not going to be confined to the specific regions but about the population (Hsiao, 1986).

Second, for dynamic models, the OLS estimates of the coefficients are biased due to the correlation between the lagged dependent variable and individual-specific effects. To reduce such bias, we estimate our model with the generalized least squares (GLS) estimator. According to Hsiao (1986), the GLS estimator is simple to implement and the assumption can be in the general form of independently distributed effects. Although the GLS estimator might be inconsistent when T is small and if the initial values are correlated with the effects, the asymptotic bias of the GLS is smaller than that of the OLS.

Third, FDI and exports could be simultaneously related. In one direction, FDI promotes exports. In the other direction, exports stimulate FDI. To minimize this potential causality problem in our regression analysis, we use the current exports as the dependent variable while a lag FDI as an explanatory variable. Investment proceeds ahead of production and production proceeds ahead of exports. The lag specification better represent the above sequence and thus the causality. In addition, some recent empirical studies have shown that FDI is determined by market size, infrastructure, wage cost, education, and preferential policy (e.g., Cheng & Kwan, 2000; Song & Zhang, 1999). We have not seen any study that shows exports as a major determinant of FDI.

A linear form of Eq. (1) is estimated. Table 3 presents our empirical results. Like Wei et al. (1999), we estimate Eq. (1) using both random effect and least squares methods. As shown in Table 3, our regression models well fit the data, with high R^2 values. Because the export and FDI variables are specified as log levels in the regression model, the possibility of heteroscedasticity is considered. In addition, we calculated t values based on White's asymptotically consistent variances.

The positive and significant coefficient on $\text{Log}X_{(t-1)}$ suggests that previous export performance is strongly associated with the export performance during the next year. Its value of .946 implies than a 1% change in the level of exports in previous year is associated with 0.946% increase in exports in the next year. This finding confirms a strong tendency for past performance to influence future performance. Of particular interest is the coefficient on the $\text{LogFDI}_{(t-1)}$ variable. The high t value indicates that the level of FDI in previous year significantly affect the export performance in the next year. Statistically speaking, FDI is an important factor affecting export performance. The result on growth rate of GDP (GR) suggests that the better overall economic performance of a province, the better export performance as well. The results on other variables, however, are unexpected. One possible explanation is that the model is dominated by the lag variable of export. Checking the coefficients and t values, we found that both coefficient and t values for $\text{Log}X_{(t-1)}$ are very large. Other variables are probably overshadowed and thus the model underestimates their

Table 3
Determinants of China's export (dependent variable: $\text{Log}X_t$)

	Model 1		Model 2		Model 3	
Independent variable	Coefficients	t value	Coefficients	t value	Coefficients	t value
Constant	0.5974***	4.69	0.6600***	4.51	4.7935***	17.09
LFDI(−1)	0.0334***	3.58	0.0291***	2.82	0.2925***	13.86
LX(−1)	0.9460***	44.85	0.9369***	39.94	–	–
LK(−1)	0.0116	0.41	0.0280	0.83	0.3842***	2.75
MS	−0.0007	−0.53	−0.0010	−0.59	0.0127***	3.06
R	−0.0417***	−5.01	−0.0393***	−4.44	−0.1788***	−8.72
GR	0.0095***	3.79	0.0094	3.68	0.0199***	3.09
LGDP	–	–	–	–	0.4550***	3.90
Adjusted R^2	.972		.973		.826	

Model 1 is random-effect GLS estimation; Model 2 is pooled least-squares estimation; and Model 3 is pooled least-squares estimation.

*** Indicates significance at .01 level.

influences on the export performance. To check whether our estimated results are robust to estimation methods, we ran a pooled least-squares regression. The second column shows results. We observed that they are qualitatively the same as those obtained by using random-effect method.

To correct the possible bias caused by the dominance of $\text{Log}X_{(t-1)}$, we reran a regression by excluding the variable of $\text{Log}X_{(t-1)}$ from the model. In order to capture the impact of the overall economy scale on export performance, we added a variable $\text{LogGDP}_{(t-1)}$ into the model. Because the lagged dependent variable is excluded, we used the pooled least-squares method. Column 3 in Table 3 presents the results. We observe that both magnitude and significance level increased for each explanatory variable, confirming the dominance of $\text{Log}X_{(t-1)}$ in our earlier regression model and the underestimation of impacts of other variables. The coefficient of $\text{LogFDI}_{(t-1)}$ becomes .29, implying that a 1% change in the level of FDI in previous year is associated with 0.29% increase in exports in the next year. This result confirms the important role of inward FDI in promoting export performance.

The results on other variables are also interesting. As stated earlier, we included $\text{Log}I_{(t-1)}$ in the model to separate the export effects of FDI from the export effects of investment in general. The significant coefficient on $\text{Log}I_{(t-1)}$ suggests that domestic investment is a significant predictor of export performance. This finding is consistent with the results in many previous studies (Coughlin & Fabel, 1988; Erickson & Hayward, 1992). The result on MS_t shows that the manufacturing sector is an important contributor to China's exports. Considering the fact that the share of manufactured products in total exports was 89% in 1998, our finding is self-explaining. The results on LogGDP and GR are expected. They indicate that export performance is positively associated with both the overall economy level and performance.

The negative and significant result on the exchange rates is unexpected. According to the conventional international trade theory, a higher exchange rate means a devaluation of Chinese yuan, causing China's products cheaper. In turn, demand for China's product increases, pushing up China's exports. We are unable to explain fully why the conventional theory does not work here. One possible explanation is that a large portion of China's exports comes from export processing, under which inputs and components needed for the production of goods for exports were imported. For example, the total processed exports in 1994 were about half of China's total exports. They comprised about 60% of total manufactured exports in that year. For processed exports, devaluation of Chinese currency implies an increase in input cost, thus decreasing China's exports.

6. Summary and conclusions

Export promotion through FDI has been one of the key reasons for the government's desire to attract FDI. FDI can help to channel capital into industries that have the potential to compete internationally, and the global linkages of MNCs can facilitate their access to foreign markets. In addition to exports that are generated directly by foreign affiliates, FDI can also promote exports through the teaching of proper marketing strategies, methods, procedures, and channels of distribution. Given that the absolute volume of China's total

exports has also been increasing substantially, China's effort on attracting FDI is proved a remarkable achievement.

This paper has presented stylized facts of exports and FDI in China. It showed that exports generated by FIEs have become more and more significant, with a share increasing dramatically from 0.05% in 1980 to 12.58% in 1990 and 45.5% in 1999. No doubt, inward FDI is playing an important role in promoting China's exports. Examining the spatial patterns of exports and FDI, this paper found that both of them concentrated in the coastal areas. Over 85% of exports came from the coastal areas and more than 85% of inward FDI went to these areas. Calculating a correlation coefficient using a simple regression model, this paper found a strong link between exports and FDI.

Using panel data at the provincial level in the period of 1986–1997, this paper provided empirical evidence on the role of inward FDI in promoting China's exports. Specifically, this paper found that 1% change in the level of FDI in previous year is associated with 0.29% increase in exports in the next year. It also found that the results on the variable of inward FDI are the most statistically significant. The findings support the widely held belief that increased levels of FDI positively affect provincial manufacturing export performance.

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