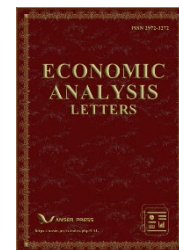




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How Does FDI-Led Growth Strategy Work? Some Lessons from China for Developing Countries

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ABSTRACT

Foreign direct investment (FDI) is widely viewed as a key driving force behind China's exceptional growth performance in the last four decades. This paper investigates several questions posed by China's success in capturing gains from FDI. What explains that success? Can other countries replicate it, or is it unique to China? What lessons are from China for other countries? China indeed has advantages in attracting FDI such as huge market and cheap labor, the well-designed policy and strategy, however, seem to play more important role in the successful story. Our empirical estimates support on four hypotheses: FDI and DP growth in China positively interact each other; FDI is helpful to China's technological progress, FDI promotes China's industrial development, and FDI stimulates China's manufactured exports.

KEYWORDS

Foreign direct investment (FDI); FDI-led growth (FK) strategy; Multinational corporations (MNCs)

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1. Introduction

In the mainstream of economics since the early 1990s, foreign direct investment (FDI) has been viewed as a key catalyst to economic growth in developing countries (Caves, 1996; Markusen and Venables, 1999; Grossman & Helpman, 2015). Yet gains from FDI, including capital inflow, job creation, export growth, and industrial upgrading, do not automatically accrue, and a country could be even worse off with inward FDI or suffer from negative consequences, including killing or crowding-out domestic firms and controlling domestic markets by MNCs with monopoly power. Well-designed FDI policies in host countries, therefore, matter for maximizing the benefits and minimizing the costs (Tang and Zhang, 2016).

While there are several economies that are successful with the export-led growth (ELG) strategy, few work out with the FDI-led growth (FLG) strategy.¹ As much by luck as by design, China seems to stumble onto the FDI policy that has proved remarkably successful, enhancing economic growth and helping the country move quickly to be the largest economy in the world in terms of purchasing power parity. How does the FLG strategy work in China? Can other countries replicate it, or is it unique to China? What lessons are from China for other countries? This study is to look for answers for the questions and to provide empirical evidence to the positive impact of FDI in China's overall economic growth, technological progress, industrial development, and manufactured export.

2. Trend of FDI in China

China has been successful in attracting FDI since the late 1970s, when open-door policy and economic reforms were initiated. FDI flows into China have surged from nil in 1979 to \$189 billion in 2022 (Figure 1). In most years of the last three decades, China was the largest FDI recipient in developing world and globally second, with FDI stock of \$2253 billion in 2022 and accounted for 15% of the world FDI inflows. In addition to China's location advantages of abundant cheap labor and huge markets, the main driving forces behind the FDI boom are the country's robust economic growth, improved infrastructure, liberal FDI regime and incentive policy, and efficient central and local government officers.

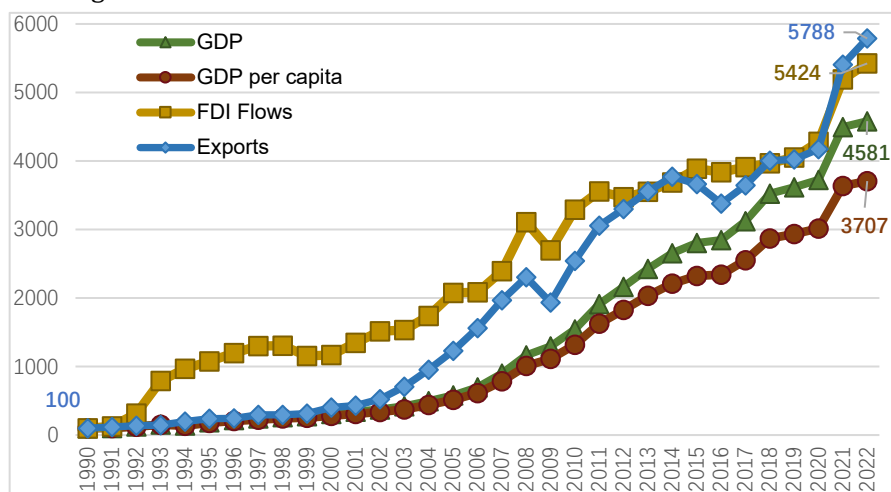


Figure 1. Growth of FDI and Economic Performance of China: 1990-2022 (1990=100)

Sources: UNCTAD-STAT (UNCTAD, 2023) and World Development Indicators (World Bank, 2023).

There are various motives for FDI, China's abundant cheap labor and large market have been most attractive to foreign investors (Zhang and Markusen, 1999). Most of FDI China received in the first three decades were cheap-

¹ There has been relative success with EL strategy, including in Germany, Japan, South Korea, Taiwan, Hong Kong, and Singapore, China seems to be successful in combinations of both EL and FL strategies.

labor-seeking and export-oriented in low-tech activities such as assembly and processing. In the recent decade, market-seeking FDI in medium-high and high-tech activities has been dominant. Unlike many other countries, FDI flows to China had been highly concentrated in the manufacturing sector, especially in the first three decades (MOC, 2023).

FDI in China displayed special patterns of ownership and entry mode, and geographic distribution. Most FDI projects were taken the way of equity or contractual joint venture with domestic firms in 1980s and 1990s. Wholly foreign-owned enterprises became common in the new century, making up 59% of total number of FIEs by the end of 2019, and 62% of total FDI stock (MOC, 2022). Greenfield FDI has been a dominant entry mode in China, although merge and acquisition (M&A) gained some importance in the past two decades (MOC, 2023).

3. Role of FDI in the Chinese Economy

Theoretically, net impact of FDI on a host country is highly disputed. While proponents argue that FDI brings about an injection of scarce resources into the host economy, including physical capital and technology, opponents warn that by competing for scarce resources including qualified labor and market demand/opportunities, FDI might replace and crowd out domestic investment. More importantly, static benefits of FDI are not sustainable over time, and the long-term impact of FDI might be pessimistic. By plugging into global value chains (GVCs) through FDI, host countries may become suppliers of labor-intensive products and components only, without gaining and upgrading its industrial capabilities (UNCTAD, 1998; Ram and Zhang, 2002; Zhang, 2010).

The large FDI inflows are closely correlated with China's outstanding economic performance, as suggested in Figure 2 and Table 1. FDI only grew strongly and became highly significant for the Chinese economy until 1990. During the period of 1990-2022, FDI flows rose by 54 times, and the growth times of GDP per capita, GDP, and exports are 37, 46, and 58, respectively (Figure 2). Table 1 provides main indicators about the role of FDI in years 1992-2020. FDI flows account for 7.4% of China's gross fixed capital formation in 1992, the share rose to 10%, then decreased to 2.3% in 2020 due to stronger growth of domestic investment. FDI stock in China accounts for 7.3% of China's GDP in 1992, then doubled to 14.7% in 2002, and maintained at 13% in 2020.

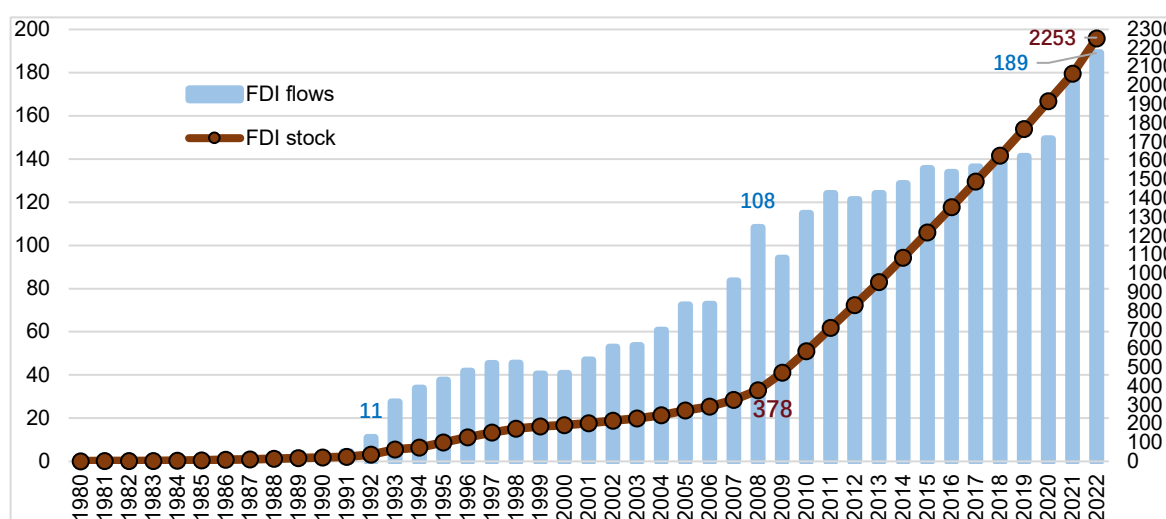


Figure 2. FDI Flows into China: 1980-2022 (in current price of billions of US dollars)

Notes: The right vertical axis is for FDI stock and the left axis for FDI flows.

Sources: Statistics on FDI in China (MOC, 2023) and UNCTAD-STAT (UNCTAD, 2023).

Table 1. Role of FDI in the Chinese Economy: 1992-2020

	1992	2002	2011	2020
FDI flows (billions of US dollars)	11.2	52.7	124.0	149.3
FDI flow share of China's gross capital formation (%)	7.4	10.0	3.7	2.3
FDI stock (billions of US dollars)	36.1	216.5	831.9	1918.8
FDI stock share of China's DP (%)	7.3	14.7	9.4	13.0
FIEs' share of total exports (%)	20.4	52.2	52.4	36.0
FIEs' share of total industrial output (%)	5.1	33.4	25.7	22.8
FIEs' share of total industrial profits (%)	7.1	30.5	25.2	28.3
Local workers employed by FIEs (millions)	6.0	31.3	55.1	29.5
FIEs' share of total tax revenue (%)	3.7	19.8	21.9	17.3

Notes: FIEs = foreign invested enterprises.

Sources: Computed from China Statistics Yearbook (NBSC, 2023), UNCTADstat (UNCTAD, 2023), and Statistics on FDI in China (MOC, 2023).

The net impact of FDI on the Chinese economy seems to be positive, especially on economic growth, which has been widely confirmed in the literature. Two factors have been identified to attribute most of China's economic miracle: rapid productivity growth driven by capital investment and technological progress, and smooth transition toward market-oriented economic systems (Zhang, 2001b and 2014). The two factors have been largely influenced by FDI, particularly through promotion effects on exports and industrial output. As Table 1 shows, foreign invested enterprises (FIEs) accounted 20% of China's exports in 1992, the share rose to 52% in 2002 and stayed there until 2011. FIEs' share of China's industrial output increased from 7% in 1992 to 33% in 2002, maintained at 28% in 2020. The similar pattern is true for FIEs' shares of total industrial profits and government tax revenues (Table 1). FDI also creates jobs. FIEs employed 55.1 million workers in 2011, constituting 16% of total urban workforce (MOC, 2022).

FDI have been helpful in China's transition toward market-oriented systems in the following aspects (Zhang, 2001b). (a) Diversifying the Ownership Structure. State-Owned Enterprises' (SOEs) share of gross industrial output declined from 78% to 28% in 1978-1998, while FIEs' share rose from zero to 24% and non-SOEs share from 22% to 48% in the same period (NBSC, 2023). (b) Establishing Market-Oriented Institutions. To effectively attract and utilize FDI, China liberalized its FDI regime and introduced market mechanisms in the rest of its economy. (c) Facilitating Reforms of SOEs. FDI in China has played a unique role in rejuvenating and reforming SOEs either directly through joint ventures with SOEs or indirectly through demonstration effects from the operations of FIEs. In addition, FDI seems to be conducive to the transition by stimulating competition and fostering China's integration into the world economy. With forward and backward linkages between domestic firms and FIEs, China's integration with the world economy has been deepened.

4. FDI-Led growth Strategy

FDI policies in China have evolved alongside economic development and strengthened institutional capacity. A gradual and prudent approach has been taken in the process of liberalization (Zhang, 2006). Four phases, roughly a decade for each over 1979-2023² may be identified as follows: the 1980s is an experimental stage with FDI policy/law trials; the 1990s witnesses significant FDI liberalization with encouraging export-

² More specifically, the four phases are 1979-1991, 1992-2001, 2002-2010, and 2011-2023.

oriented FDI in manufacturing; a much more comprehensive liberalization for all kinds of FDI has been taken since China entered World Trade Organization (WTO) in 2001; and special attention has been paid since 2011 to FDI in high-tech industries and high-tech productive services.

China began to allow FDI entry in 1979, when “Equity Joint Venture Law” was passed. Since market institutions were not fully in place in the 1980s, China experimented with opening up to FDI in special economic zones (SEZs) and selected coastal cities with a focus on attracting export-oriented manufacturing FDI. After 1986, FDI in some selective industries, mainly export-oriented sectors, was actively promoted.

The establishment of so-called socialist market economy with “Chinese characteristics” in 1992 is a big jump of the FDI policy that not only protected foreign-firm interests but also created over-national treatments for foreign investors, especially in labor-intensive sectors using China as an export platform. An amplifying factor was the concurrent strong real depreciation of the Chinese currency which made producing in China more attractive (Zhang, 2006).

A radical commitment to further FDI-trade liberalization made by China in its WTO entry in 2001, along with its cheap labor and growing markets, has triggered a formation of global value chains (GVCs) that were largely aligned with China as their center. The result of China as a world factory is extraordinary in the human history of globalization. Almost all Fortune 500 multinational corporations (MNCs) have invested in China and some small foreign firms in China have grown to well-known MNCs (Zhang, 2005). China was listed in first place among the top 5 investment locations in the first decade of the 21st century in World Investment Reports by United Nations (UNCTAD, 2022).³

Corresponding to its economic structural transformation in 1979-2023, China adjusted the policy goal toward attracting right kind/type (or high quality) of FDI as it strives to upgrade industry and move up along the global value chains. The challenge faced the Chinese government is no longer attracting large quantity of FDI, but rather meeting the needs of a rapidly industrializing its economy. The decreasing dependence on FDI in low-tech projects allowed a further move toward full national treatment with the ending of the special tax regime for MNCs. Policies have taken a more selective approach, focusing on FDI in high-tech industries and high-tech productive services.

In sum, China’s FDI-led growth strategy has been designed to gain the benefits of FDI without suffering negative consequences. In all policies, China has taken an active but gradual reform approach. The progress by step by step over time includes gradual shifts (a) from the establishment of the four SEZs to the nationwide openness for FDI, (b) from granting permission for joint ventures to allowing wholly-foreign-owned enterprises, (c) from export-oriented FDI to market-seeking FDI, (d) from encouraging FDI in manufacturing to services, (e) from tight foreign-exchange control to China’s currency convertibility on current account, and (f) from offering tax incentives to attract FDI to the application of national treatment. Despite the limitations, this reform process has proved both politically necessary and economically successful. As a result, policy makers attempted to segregate the investment regime, restricting/prohibiting investment where domestic Chinese producers might be vulnerable to MNCs competition, whilst encouraging investment to produce exports and where there was little or no domestic capacity.

5. Theoretical Hypotheses and Empirical Evidence

³ China’s highly decentralized FDI approval and policy implementation creates opportunities for healthy competition for FDI among local authorities. Local governments are increasingly seeking to ensure the administrative and operational efficiency of the approval process. The most common practice is setting up “one-stop” facilities, which aim at allowing investors to conduct all procedures in one place.

There is a large body of the literature on FDI-economic growth links, theoretical predictions in the context of China, however, may be summarized as four hypotheses: FDI and GDP growth in China may positively interact each other; FDI may enhance China's technological progress, FDI may promote China's industrial development, and FDI may stimulate China's manufacturing exports (Zhang, 2001b; 2001c; Zhao & Zhang, 2010; Zhang, 2014; 2015).

A procedure of "unit root-cointegration-error correction-causality tests" with time-series data is adopted to investigate possible causal relationship between FDI and economic growth. we conduct estimations with the data of annual real FDI stock and real GDP over 1970-2021.⁴ The data on all variables are taken from *World Bank Open Data* (World Bank, 2023) and *UNCTADSTAT Database* of United Nations (UNCTAD, 2023). All estimates of tests for unit root, cointegration, and causality are reported in Table 3. The ADF tests in Panel 1 are performed under three hypotheses: the series are stationary at levels (with no unit root), at differencing once (one unit root), and at differencing twice (two-unit roots). Both FDI and GDP in China are integrated of two-unit roots, suggesting that the two variables are non-stationary with time-dependent means and variances, and cointegration tests are necessary to establish long-run relations between the two series (Engle and Granger, 1987). The long-run relationship might be investigated by the Johansen procedure to see whether the series of FDI and GDP are cointegrated. The estimations reject the hypothesis of no integration, as showed in Panel 2. In other words, FDI and GDP in China may have a long-run as well as a short-run relationship. The conventional Granger-causality tests are applied for the short-run causality and Error-Correction model tests for the long-run causality (Hsiao, 1981). Estimates in Panel 3 support two-way causality between China's GDP and FDI or FDI and GDP in China move together in both short-run and long run with positive causality (or feedback). In other words, FDI and economic growth in China reinforce each other.

Table 2. FDI and Economic growth in China (1981 -2021): Estimates of Unit Roots, Cointegration, and Short-Run and Long-Run Causality

Panel 1. Augmented Dickey-Fuller Tests for Unit Roots

$$X_t = \alpha_0 + \alpha_1 X_{t-1} + \sum_{i=1}^n \alpha_{1+i} \Delta X_{t-i} + \varepsilon_t$$

H ₀ : Non-Stationarity of <i>Log(FDI)</i>			H ₀ : Non-Stationarity of <i>Log(DP)</i>		
Levels	1 st Difference	2 nd Difference	Levels	1 st Difference	2 nd Difference
-0.41 (-1.52)	-1.01 (-1.37)	-3.14** (-5.68)	-0.78 (-2.01)	-0.92 (-1.96)	-3.89** (-5.15)

Panel 2. Johansen Cointegration Tests for Long-Run Equilibrium Relationship

$$X_t = a + \lambda \sum_i^n Y_{t-i} + ct + \varepsilon_t$$

Maximum Eigenvalue	Cointegration Equation Normalized on <i>Log(DP)</i> or <i>Log(FDI)</i>		
Likelihood Ratio	<i>Log(FDI)</i>	Constant	Log Likelihood
13.87**	Yes	Yes	Yes

⁴ The real DP is used to measure economic performance, FDI stock instead of FDI flows seems to be the more appropriate variable in relation to DP, just like DP and exports that are used widely in the literature for analyzing causal links between economic growth and exports. As also is common in the literature, each variable is used in the logarithmic form.

Likelihood Ratio	Log(DP)	Constant	Log Likelihood
	Yes	Yes	Yes

Pane 3. ranger Tests for Short -Run Causality and Error-Correction Model for Long-Run Causality

$$\Delta X_t = \alpha_1 + \beta_1 z_{t-1} + \sum_{i=1}^p \gamma_{1i} \Delta Y_{t-i} + \sum_{i=1}^q \delta_{1i} \Delta X_{t-i} + \varepsilon_{1t}$$

$$\Delta Y_t = \alpha_1 + \beta_1 z_{t-1} + \sum_{i=1}^p \gamma_{1i} \Delta Y_{t-i} + \sum_{i=1}^q \delta_{1i} \Delta X_{t-i} + \varepsilon_{1t}$$

ranger Tests for Short -Run Causality		Error-Correction Model Tests for Lon-Run Causality		Causal Inference
DP to FDI	FDI to DP	DP to FDI	FDI to DP	
	6.76** (+)		2.91** (+)	DP \longleftrightarrow

Notes: The asterisks * and ** indicate significance levels at 5% and 1%, respectively.

Empirical evidence on the role of FDI in China's technology is based on regressions with industrial panel data in 2001-2006 (Zhao & Zhang, 2010). The main results, presented in Table 3, can be summarized as follows. Technology-promoting effects from FDI on China's industries take place through both direct ways and spillovers. China's human capital complements with positive effects of FDI on industrial productivity in the sense that the magnitude of FDI promoting effects may be influenced by China's absorptive capability. An industry with more human capital tends to capture more benefits from FDI. Direct contributions to productivity are larger in labor-intensive industries, which spillovers seem to be greater in capital-intensive industries.

Table 3. Estimates of FDI and China's Technology: 2001-2006

Variable	Full Sample	K-Intensive Sample	L-Intensive Sample
Constant (C)	1.30 (7.61)***	1.55(6.68)***	1.17(7.01)***
Capital (K)	0.42(5.63)***	0.47(5.02)***	0.39(5.75)***
Labor (L)	0.16(1.76)*	-0.19(1.13)	0.23(2.49)**
Human Capital (H)	0.09(1.81)*	0.10(2.61)**	0.08(1.76)*
R&D (R)	0.08(1.78)*	0.09(1.81)*	0.06(1.76)*
FDI Stock (FDIS)	0.36(4.58)***	0.21(3.95)***	0.48(5.24)***
FDI Flows (FDIF)	0.12(2.82)**	0.23(2.47)**	0.09(4.01)***
FDIS*H	0.03(2.41)**	0.04(2.38)**	0.01(1.80)*
Adjusted R ²	0.95	0.95	0.96
F-Statistic	324***	484***	528***
Sample size (N)	222	108	114

Notes: The dependent variable is value-added of industrial output (Y) in an industry. Figures in parentheses are t-statistics. The asterisks *, **, and *** indicate significance levels at 10%, 5%, and 1%, respectively.

Source: Zhao, Z. & K. H. Zhang, "FDI and industrial productivity in China: Evidence from panel data in 2001-2006," *Review of Development Economics*, 14 (3), 2010: 656-665.

FDI seems to affect largely China's industrial development, because of the outstanding performance of the Chinese industry and massive increase in FDI flows into China in the past decades. The empirical work (Zhang, 2014) is based on 21 manufacturing sectors for 31 regions in 2005-2011 with an index of industrial competitiveness (IC). Panel estimates, reported in Table 4, suggest a positive role of FDI in promoting IC, with

conditions on domestic absorptive capability. The main findings are summarized as follows: (a) FDI, along with domestic learning from MNCs, does seem important to China's industrial performance; (b) The benefits of FDI seem to be larger to exporting industries than domestic manufactures; (c) FDI seems to play a crucial role in expanding China's capacity to produce and export low-tech manufactures, its contributions to technology upgrading and export sophistication seem to be limited; and (d) Domestic learning from FDI or local absorptive capability seem to account for most of China's technological deepening in manufacturing production and exports.

Table 4. Estimates of Impact of FDI on China's Industrial Competitiveness: 2005-2011

Independent Variables	Dependent Variables					
	IC		DIC		XIC	
<i>K</i>	0.172*	0.199*	0.192	0.215	0.157*	0.180*
	(1.693)	(1.805)	(1.364)	(1.416)	(1.766)	(1.857)
<i>HK</i>	0.228*	0.241*	0.177	0.212*	0.245	0.316*
	(1.790)	(1.678)	(0.823)	(1.757)	(1.101)	(1.777)
<i>INFR</i>	0.185***	0.270***	0.141**	0.150**	0.207***	0.235***
	(4.641)	(5.01)	(2.478)	(2.592)	(4.328)	(5.010)
<i>RD</i>	0.124	0.257*	0.144	0.178	0.124*	0.381**
	(0.807)	(1.760)	(0.559)	(1.087)	(1.866)	(2.787)
<i>FIEYS</i>	0.396***		0.276**		0.517***	
	(6.558)		(3.147)		(7.423)	
<i>FIEYS×HK</i>	0.157**		0.121*		0.274**	
	(2.286)		(1.718)		(3.027)	
<i>FDIS</i>		0.463***		0.307**		0.557***
		(7.039)		(2.920)		(7.853)
<i>FDIS ×HK</i>		0.216**		0.193*		0.231**
		(2.501)		(1.706)		(2.885)
<i>Reg. Dummy</i>	Yes	Yes	Yes	Yes	Yes	Yes
<i>Year Dummy</i>	Yes	Yes	Yes	Yes	Yes	Yes
<i>Adj. R²</i>	0.90	0.91	0.85	0.87	0.92	0.93
<i>F-Statistic</i>	197	201	173	179	210	228
<i>Observations</i>	217	217	217	217	217	217

Notes: IC = industrial competitiveness; DIC = domestic industrial competitiveness; and XIC = export industrial competitiveness. Constant terms are omitted (but available upon request) to save the space. Figures in parentheses are t-statistics. The asterisks *, **, and *** indicate significant levels at 10%, 5%, and 1%, respectively.

Source: Zhang, K. H. (2014), "How does FDI affect industrial competitiveness? Evidence from China," *China Economics Review*, 30: 530-539.

FDI seems to affect China's exports substantially through expanding export capacity and upgrading export sophistication. The empirical analyses of the issue are based on evidence from the Chinese manufacturing (Zhang, 2015). We construct the export competitiveness (XC) index and its three composite indicators (manufactured exports per capita, manufactured export share in total exports, and medium- and high-tech manufactured export share in total manufactured exports). Four findings emerge from the estimates: (a) FDI is a key driver of China's export success; (b) China's absorptive capacity reinforces the effects of FDI through domestic learning efforts; (c) FDI seems to contribute more to export capacity than export upgrading, especially in labor-intensive/low-tech

products; and (d) High-tech FDI from the western world seems to be more conducive to export upgrading than low-tech FDI from developing economies.

Table 5. Estimates of FDI and China's Manufacturing Export: 2005-2011

	<i>Dependent Variables</i>							
	<i>XC</i>		<i>MXPC</i>		<i>X/X</i>		<i>MHMX/MX</i>	
<i>K</i>	0.23** (2.54)	0.24* (1.87)	0.11** (2.50)	0.13* (1.89)	0.09** (2.52)	0.07* (1.72)	0.22** (2.66)	0.24* (1.75)
<i>W</i>	-0.08 (-0.47)	-0.10 (-0.46)	-0.08 (-0.87)	-0.09 (-0.21)	0.12 (0.78)	0.11 (0.81)	-0.08 (-0.99)	0.10 (1.00)
<i>HK</i>	0.28* (1.89)	0.32** (2.77)	0.44* (1.90)	0.47* (1.93)	0.49 (1.42)	0.52* (1.87)	0.81* (1.77)	0.88** (2.56)
<i>INFR</i>	0.25*** (5.87)	0.26*** (5.22)	0.20*** (3.82)	0.19** (2.55)	0.15** (2.65)	0.12** (2.49)	0.31*** (5.11)	0.33*** (5.77)
<i>FIEYS</i>	0.51*** (5.77)		0.75*** (6.08)		0.50** (2.42)		0.41*** (4.94)	
<i>FIEYS×HK</i>	0.18** (2.49)		0.17* (1.79)		0.11 (1.44)		0.29** (2.71)	
<i>FDIS</i>		0.60*** (6.21)		0.78*** (7.55)		0.40** (2.89)		0.52** (2.66)
<i>FDIS ×HK</i>		0.25** (2.47)		0.35* (1.87)		0.20* (1.80)		0.29** (2.56)
<i>Reg. Dummy</i>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<i>Year Dummy</i>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<i>Adj. R²</i>	0.88	0.90	0.89	0.93	0.74	0.73	0.86	0.87
<i>Observations</i>	217	217	217	217	217	217	217	217

Notes: *XC* = Export competitiveness; *MXPC* = manufactured exports per capita; *MX/X* = manufactured exports share in total exports; *MHMX/MX* = shares of medium- and high-tech manufactured exports in total manufactured exports. Constant terms are omitted (but available upon request) to save space. Figures in parentheses are *t*-statistics. The asterisks *, **, and *** indicate significant levels at 10%, 5%, and 1%, respectively.

Source: Zhang, K. H. (2015), "What drives export competitiveness? The role of FDI in Chinese manufacturing." *Contemporary Economic Policy*, 33 (3): 499-512.

6. Summary and Policy Implications

This study tends to explain why the FDI-led growth strategy works well in China. Perhaps China is only a large economy that has been successful in attracting and utilizing FDI since 1979. What China did in the first two-decade include encouraging export- (not market-) oriented FDI, establishing export-processing zones and industrial parks, and building up high-quality infrastructure. In the second two-decade, China's policies include relaxing restrictions on market-seeking and services FDI, exchanging market for technology, more R&D funds for domestic firms, and encouraging high-tech FDI.

China has been widely regarded as one of the most successful countries in utilizing FDI to promote economic growth. While China's success might be somewhat special due to its unique advantage over other developing countries in bargaining with multinational corporations, some lessons may have implications to other developing countries. Several reasons for China's success may be identified. (a) Export-oriented manufacturing: China attracted significant FDI to establish manufacturing facilities, becoming the "world's factory" for a wide range of products. This FDI-driven manufacturing sector played a crucial role in driving China's rapid economic growth

and export-led development. (b) Technology transfer: Foreign companies brought advanced production techniques, management practices, and technology to China. This technology transfer contributed to upgrading China's industrial capabilities and fostering innovation. (c) Infrastructure development: China emphasized developing its high-quality infrastructure, including transportation networks, and ports, which provided a conducive environment for foreign investors. (d) Government policies: China's government implemented policies to encourage FDI, including the establishment of special economic zones, preferential tax treatment, and reduced bureaucratic barriers.

Several lessons might be derived in the context of other developing countries. (a) FDI has potentials in helping a host economy, but the benefits do not accrue automatically. National policies and host government bargaining power relative to multinational corporations matter for attracting right FDI and for reaping its full benefits. (b) In addition to well-designed FDI policies, location advantages of developing economies such as abundant cheap labor and domestic market may be fully utilized as its bargaining power to minimize costs of and maximize benefits of FDI. (c) Export-oriented manufacturing FDI may be prioritized as a top type of all FDI. This FDI-driven manufacturing activities could play a crucial role in driving rapid economic growth and export-led industrialization. (d) More work on infrastructure development to promote exports and to enhance technology transfer in FDI. High-quality infrastructure, including transportation networks, and ports, provided a conducive environment for foreign investors as well as for domestic firms. (f) Specific policies or measures should be designed and developed to encourage FDI and to capture gains from FDI, including the establishment of special economic zones, industrial parks, preferential tax treatment, and reduced bureaucratic barriers.

While many policies and measures China used could be copied by other developing countries, the outcome of China's FDI-led growth strategy may not be replicated. China's unique advantages – large size or scale in cheap labor and market, strong centralized government, large amount of rich overseas Chinese who invested most of export-oriented affiliates, and special culture (patience, persistence, learning, high saving rate) have provided it with bargaining power to minimize costs of and maximize benefits of FDI.

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Conflict of interest

The authors claim that the manuscript is completely original. The authors also declare no conflict of interest.

References

- Caves, R. (1996), *Multinational Enterprises and Economic Analysis*, the 2nd edition, Cambridge, MA: Cambridge University Press.
- Grossman & E. Helpman (2015), "globalization and growth." *American Economic Review*, 105 (5): 100-104.
- Markusen, J., and A. Venables (1999), "Foreign direct investment as a catalyst for industrial development." *European Economic Review*, 43: 335-56. [https://doi.org/10.1016/S0014-2921\(98\)00048-8](https://doi.org/10.1016/S0014-2921(98)00048-8)
- Ministry of Commerce (MOC) of China (2023), *Statistics on FDI in China 2022*, Beijing: Ministry of Commerce of China.
- National Bureau of Statistics of China (NBSC) (2023), *China Statistical Yearbook 2022*, Beijing, China: China Statistics Press.
- Ram, R. & K. Zhang (2002), "Foreign direct investment and economic growth: evidence from cross-country data for the 1990s", *Economic Development and Cultural Change*, 51(1): 205-215. <https://doi.org/10.1086/345453>

- Tang, Y. & K. H. Zhang (2016), "Absorptive capacity and benefits from FDI: evidence from Chinese manufactured exports." *International Review of Economics and Finance*, 42: 423-429.
- United Nations Conference on Trade and Development (UNCTAD) (1998), *World Investment Report 1998: Foreign Direct Investment and Challenges of Development*, New York: United Nations. UNCTAD (2023), *UNCTADSTAT Database*, New York: United Nations.
- World Bank (2023), *World Development Indicators Database*, Washington DC: World Bank.
- Zhang, K. H. & J. R. Markusen (1999), "Vertical multinationals and host-country characteristics," *Journal of Development Economics*, 59: 233-252. [https://doi.org/10.1016/S0304-3878\(99\)00011-5](https://doi.org/10.1016/S0304-3878(99)00011-5)
- Zhang, K. H. (2000), "Why is U.S. direct investment in China so small?" *Contemporary Economic Policy*, 18(1): 82-94. <http://dx.doi.org/10.1111/j.1465-7287.2000.tb00008.x>
- Zhang, K. H. (2001a), "What attracts multinational corporations to developing countries? Evidence from China," *Contemporary Economic Policy*, 19 (3): 336-346. <https://doi.org/10.1093/cep/19.3.336>
- Zhang, K. H. (2001b), "How does foreign direct investment affect economic growth in China?" *Economics of Transition*, 9 (3): 679-693. [https://doi.org/10.1016/S0022-1996\(97\)00033-0](https://doi.org/10.1016/S0022-1996(97)00033-0)
- Zhang, K. H. (2001c), "Does FDI promote economic growth? evidence from east Asia and Latin America," *Contemporary Economic Policy*, 19 (2): 175-185. <http://dx.doi.org/10.1111/j.1465-7287.2001.tb00059.x>
- Zhang, K. H. (2005), "Why does so much FDI from Hong Kong and Taiwan go to mainland China?" *China Economic Review*, 16: 293-307. <https://doi.org/10.1016/j.chieco.2005.02.004>
- Zhang, K. H. (2006), "Foreign direct investment in China," *Canadian Foreign Policy*, 13 (2): 35-50.
- Zhang, K. H. (2010), "How does globalization affect industrial competitiveness?" *Contemporary Economic Policy*, 28 (4): 502-510. <https://doi.org/10.1111/j.1465-7287.2009.00153.x>
- Zhang, K. H. (2014), "How does FDI affect industrial competitiveness? Evidence from China," *China Economics Review*, 30: 530-539. <https://doi.org/10.1016/j.chieco.2013.08.003>
- Zhang, K. H. (2015), "What drives export competitiveness? The role of FDI in Chinese manufacturing." *Contemporary Economic Policy*, 33 (3): 499-512. <https://doi.org/10.1111/coep.12084>
- Zhao, Z. & K. H. Zhang (2010), "FDI and industrial productivity in China: Evidence from panel data in 2001-2006," *Review of Development Economics*, 14 (3): 656-665. <https://doi.org/10.1111/j.1467-9361.2010.00580.x>