OWNERSHIP BIASES AND FDI IN CHINA

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ABSTRACT

This paper summarizes a new approach toward the phenomenon of foreign direct investment (FDI) that views FDI as a function of institutional distortions in an economy rather than as normally-postulated factors such as growth and labor costs. The ownership-bias hypothesis of FDI has received some empirical support and this paper will summarize these findings. The paper will then present a detailed summary of a research project that links the ownership biases in the Chinese economy with the subjective preferences for FDI on the part of the Chinese private entrepreneurs. The main finding is that credit-constrained private entrepreneurs, all else being equal, exhibit stronger preferences for FDI than those private entrepreneurs less constrained. This study complements other studies that are based on objective economic data.

JEL Codes: F00, L26, R11
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"As entrepreneurs we are condemned to being either the concubines of state enterprises or the mistresses of multinationals." Wu Kegang, president of Yunnan Hong Wine, a private spirits company in southwest China.¹

There are two important strands in the literature on foreign direct investment (FDI).² The seminal work here began with his PhD thesis at MIT—by Stephen Hymer in the early 1960s. A long-held view is that FDI is the conduit for transferring management know-how, technology, and much needed market access to a host country.³ The second strand of the literature seeks to demonstrate the effects of FDI (and of globalization in general). The mainstream view among economists is that globalization has been enormously beneficial to poor countries. For these economists, China is the most dramatic example of the benefits of globalization. For instance, World Bank economists have attributed China’s impressive reduction of poverty to the globalization of its trade and capital markets.⁴

The primary purpose of this paper is to revisit the theme in the first strand of the FDI literature—i.e., why FDI happens. In the concluding section of the paper, I will highlight the implications of the findings for the second strand of the literature on FDI. I will argue that the two strands of the FDI literature are intimately related but the main emphasis of this paper is on the first strand.

A central hypothesis of this paper is that China’s FDI inflows are heavily—although not exclusively—a function of China’s institutional landscape. That institutional landscape is best described as manifesting a political pecking order of firms in which the firms at the top of the pecking order are the least efficient—such as SOEs—and the firms at the bottom of the pecking order are the most efficient—such as entrepreneurial, private-sector firms. This is not to deny the enormous progress China has made in private sector development and privatization of state-owned enterprises (SOEs). The point here is that resource allocation in China—resources here defined broadly to include not just financial resources but also political and legal resources—is

¹ Quoted by McGregor and Sun (2006).
² The general social science research on FDI is substantial. For a summary of the literature, see Caves (1996). China scholars began to study FDI quite early. For example, see Kueh (1992) and Lardy (1992).
³ See Hymer (1976).
substantially statically inefficient even though there have been dynamic improvements over time (and from a very low base).

In this institutional setting, FDI plays a critically important role. This is a role having to do with provision of finance and some amelioration of property rights insecurity to the most dynamic sector of the Chinese economy—private firms. FDI also contributes to the growth of the Chinese economy through its privatization of SOEs. This is the central idea behind the hypothesis that connects FDI inflows with ownership biases in the Chinese economy.

We should explicitly separate the incidence of FDI from the effects of FDI in our discussion. The effects of FDI are efficiency-improving but FDI is efficient because it is curative, not additive. Here is the fundamental difference between the traditional conception of FDI and the ownership-bias view of FDI. Traditional view of FDI is that it is additive to economic growth through capital inflows, technology, know-how, market access, etc. The ownership-bias view of FDI is that FDI is remedial of fundamental distortions of an economy and its incidence is a function of distortions and inefficiencies rather than because of low labor costs and market growth. Also this line of research is distinct from the research that seeks to ascertain the “crowding out” effect of FDI (Aitkin and Harrison 1999; De Backer and Sleuwaegen 2003).

Since the ownership-bias view of FDI was proposed (Huang 2003b), there have been a number of attempts—some ongoing—to systematically demonstrate the effects of ownership biases on FDI. In this paper I summarize some of the empirical findings from this line of research as well as to present some broad patterns of China’s FDI that are descriptively consistent with an ownership-bias view of FDI. I should note that the data and the findings presented in this paper do not represent original research; they reflect the state of research in this area.

The paper is organized as follows. The first section presents some stylized facts of Chinese FDI. The second section presents some direct evidence of the ownership biases in the Chinese economy. The third section summarizes some of the research that connects ownership biases with FDI. The fourth section concludes with broad implications of this line of research.

**CHINA’S FDI INFLOWS**

This section presents a number of stylized facts of China’s FDI inflows.

**Aggregate volume**

It is well-known that China is one of the top destinations of FDI in the world. The aggregate volume of FDI inflows is now approaching 80 billion dollars a year. Perhaps the best
indicator of the huge FDI appetite of China is to contrast it with India. Figures 1 and 2 present the huge contrast between the two countries. FDI inflows into India, on average, are about one tenth of that of China. This difference is not a function of the size differentials of these two economies. As a percentage ratio of GNP and fixed asset investments, the Indian ratios are dwarfed by those of China. And this is true both during the fast-growth period of Indian economy—since 2003—as well as during those years in which Indian growth was lacklustre (such as the early 1990s).

[Insert Figures 1 and 2 here]

It follows naturally that the large FDI inflows would have led to a substantial role of FIEs—foreign-invested enterprises—in the Chinese economy. FIEs have established an absolute dominance in China’s high-tech export sectors—such as electronics and machinery—and overall FIEs now account for over 60 percent of China’s total exports.

Many attribute China’s huge export success to FIEs. But the simple fact is that other economies were able to achieve impressive export growth with minimum FDI. As of the mid-1970s, FIEs in Taiwan accounted for only 20 percent of Taiwan’s manufactured exports. The share of FIEs in China’s exports not only exceeds that of Taiwan but of other Asian countries as well during comparable stages of development. Seiji Naya and Eric Ramstetter show that, except for Singapore, where MNCs have traditionally dominated domestic firms, no other Southeast Asian country came close to the 60 percent share of manufactured exports claimed by Chinese FIEs. In Korea, between 1974 and 1978, foreign firms accounted for 24.9 percent of manufactured exports.

One critical difference between China on the one hand and the rest of East Asia on the other is that FIEs dominate both labor-intensive industries as well as in capital-intensive industries in China whereas in East Asia—almost everywhere else—FDI is only important in capital-intensive industries. This explains why East Asia was able to achieve export success without much FDI—they first grew in the labor-intensive industries where FDI was absent and then began to attract FDI as they upgraded their products.

Huang (2003) presents data that in the 1990s garment and footwear FIEs accounted for 60.5 percent of exports in China, but only 5.7 percent in Taiwan in the 1970s. FIEs similarly dominated exports in leather and furniture in China to a far greater extent than they did in Taiwan. A very interesting pattern is that FIEs’ export dominance in China is not because they

5 The export share data for Taiwan come from Ranis and Schive (1985).
6 All the data on Korea and the Southeast Asian countries are from Naya and Ramstetter (1988).
are more export-oriented than Taiwanese FIEs at the firm level. In fact they are less export-oriented. At least this was true in the 1990s. On average, FIEs in China in 1995 exported 38.6 percent of their output, but FIEs in Taiwan in 1976 exported a much higher share, at 46 percent (Ranis and Schive 1985). Thus, at least compared with Taiwan, that FIEs in China export so much output abroad results from their sheer dominance of Chinese export production, not from export-orientedness at the firm level. This distinction is critical. The export dominance of FIEs in China is the result of their substantial overall role in the Chinese economy rather than export efficiency at the firm level.

THE PERVASIVE PRESENCE OF FIEs

Gravity model of FDI predicts that FDI should be clustered in countries geographically close to each other. In China, the geographic distribution of FDI is extremely dispersed. Western researchers believe that FDI is highly concentrated in the coastal provinces to the neglect of China’s hinterland provinces. Two researchers, Edward Graham and Erika Wada, in a study on FDI in China make the following observation, “[V]ast areas of China, including ones where much state-owned industry is located, have not been touched by FDI” (Graham and Wada 2001, p. 5). In recent years, the Chinese government has made FDI promotion a prominent component of its development strategy for the central and western provinces.

The data that are often cited to support the geographic concentration hypothesis is that Eastern China accounted for 84.5 percent of cumulative FDI between 1985 and 1991 and 87.3 percent between 1992 and 1998 (Gipouloux 2000). In interpreting these data, it is important to keep in mind that during the 1990s China attracted an enormous amount of FDI and thus a small portion of FDI going to the interior provinces is still a significant number. According to statistics provided in Gipouloux’s study, the interior regions of China accounted for about 13 percent of cumulative FDI inflows between 1992 and 1998. During this period cumulative FDI flows into China as a whole amounted to $242.3 billion. This means that the interior regions of China received $31.5 billion in FDI.

The true puzzle is not why the poor, land-locked provinces do not receive much FDI; the puzzle is why they get any at all. These areas of China are not expected to be competitive on the FDI front. Linguistic and cultural ties with the ECEs are not strong and, to the extent that FDI is a “neighborhood affair,” these regions of China are far away from all the major FDI suppliers. But the fact is that even in some of the most remote provinces in China FDI accounts for a surprisingly high proportion of fixed asset investments.
FDI theory suggests that FDI is usually concentrated in industries characterized by an oligopolistic dynamic. There is quite a bit of empirical evidence in support of the thesis of industry concentration of FDI. For example, in a survey article Newfarmer and March find that over 80 percent of foreign subsidiaries in Mexico and Brazil were in industries with four-firm concentration ratios exceeding 50 percent. Similar concentration patterns of foreign firms were found in Peru, Chile, Colombia, and Malaysia. According to Bruce Kogut, FDI in Central European countries exhibited a similar pattern. Foreign firms were found in only a few industries, such as autos, consumer products, and telecommunications. And the investing firms were familiar ones, such as ABB, Coca-Cola, and Proctor & Gamble.7

Chinese FDI patterns again differ. In order to avoid attributing a particular pattern of industry distribution of FDI to investor characteristics—such as those associated with Western MNCs vis-à-vis those associated with Asian MNCs—Huang (2003) presented Hong Kong investments in four Asian economies, China, Taiwan, Malaysia, and Indonesia, to control for a supply perspective focusing on differences among investors. Except for in China, Hong Kong investments exhibit a similar degree of high industry concentration. In Indonesia, the top three manufacturing industries with the most Hong Kong investments accounted for 79.1 percent of total Hong Kong investments; in Malaysia, it was 75.3 percent; and in Taiwan, it was 86.4 percent. (While these data are from the 1970s, data from the 1990s show a similar pattern of sector concentration of Hong Kong FDI.) In China, the top three industries, electronics, plastic products, and textiles, only accounted for 46.7 percent of total Hong Kong FDI as of 1993. Among the twenty-eight manufacturing industries, none received more than 10 percent of total FDI. The highest share was 9.6 percent in the electronics and telecommunications industry. The textile industry followed, at 8.9 percent. In our ongoing study (Feng, Huang, and Li 2008), we show that across a number of concentration measures, Chinese FDI distribution is highly dispersed compared with India’s FDI industry distribution.

**Labor-intensive FDI**

In a widely used textbook on FDI, Richard Caves writes (1996, p. 25), “MNEs [multinational enterprises] are logically incompatible with the purely competitive organization of

7 Central Europe exhibits a familiar pattern of oligopolistic rivalry among foreign investors. FDI may disturb national oligopolies, although, as Kogut points out, multinational corporations prevail in industries characterized by oligopoly (Kogut 1996).
an industry.” The reason is, as Caves observes, “purely competitive industry has ample new local entrants to compete down the windfall profits in the foreign market.”

One of the most interesting aspects of Chinese FDI inflows is how far the country has deviated from this theoretical postulation. FDI has been very large in China’s labor-intensive industries. According to one estimate, about 50 percent of China’s FDI inflows in the late 1990s went into labor-intensive manufacturing industries (Tseng and Zebregs 2002). While one can argue that the export dominance of FIEs is due to their control of access to Western markets, it should be noted that in a number of labor-intensive industries, the FIE shares of industry sales seem to be substantial as well. In 1995, FIEs accounted for 30.7 percent of sales in furniture manufacturing, 50.8 percent in garments, and 54.1 percent in leather and related products.

One of the reasons why FDI is so substantial in labor-intensive industries is the presence of many foreign small-to-medium enterprises (SMEs) among foreign investors in China. The active role of foreign SMEs in China is revealed in a number of ways. One is the small size of the FDI projects. The other is that FDI projects tend to be small across the board, that is, the small size, at least in the mid-1990s, is not a function of the investors’ ethnicity. Huang (2003) has collected data that show that the individual size of FDI projects from Taiwan was substantially smaller than similar projects by Taiwanese firms in other economies.  

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8 According to Yang (1997), the average capitalization of Taiwanese investments in China ranged between $735,000 and $1 million during the 1991-94 period. In contrast, Taiwanese investments in Southeast Asia averaged between $3 and $6 million during the same period. Taiwanese authorities restricted investments in China by limiting the size of individual FDI projects. This restriction, no doubt, led to the smaller FDI projects in China by Taiwanese investors. However, it is important to point out that the average actual investment size was far below the limit imposed by the Taiwanese authorities ($1.5 million). Also FDI projects funded by firms from countries without investment restrictions are similarly small. Affiliates of Singaporean firms in China are much smaller than affiliates of Singaporean firms in other countries. According to the Singapore Department of Statistics, in 1995, the average equity capital per overseas affiliate of Singaporean firms was $4.8 million. A similar measure would put the size of Chinese affiliates of Singaporean firms at $1.9 million. The data on the average equity investment size of Singaporean overseas affiliates are from (Singapore Department of Statistics 1998). Data on Chinese affiliates of Singaporean firms are from NSB (1997).
Declining contractual alliances

One of the biggest puzzles in China’s export production is why outsourcing declined at the same time as equity production arrangements gained dominance. While FIEs have played an instrumental role in China’s successful export drive, it should be noted that they both have created exports and may have replaced exports previously produced by Chinese-owned firms. In the late 1980s, contractual alliances accounted for majority of Chinese export production; by 1996, exports by processing and assembly operations fell to 16 percent of Chinese exports while FIEs’ share of exports increased to 33.8 percent (General Administration of Customs of the People's Republic of China 1996). In more recent years, contractual alliances have all but disappeared. This was mainly due to a massive conversion of contractual alliances between domestic and foreign firms into FIEs during the mid-1990s.

Efficiency does not explain this massive conversion. To the extent that there is any difference at an operating level, the difference actually favors export-processing and assembly operations over FIEs. Based on research on Guangdong province and data from the early 1990s, Sung et al. (1995) find no evidence of significant differences in technology and labor intensity between FIEs and export-processing operations. FIEs, in the opinion of the authors of this study, were “no better than processing operations in the transfer of management skills.” In fact, processing operations might command an edge in efficiency because they operate in an extremely competitive environment and are more export-oriented (Sung et al. 1995).

Precisely because the operating differences between FIEs and contractual alliances are not substantial, it is all the more interesting to explore why equity capital inflows have risen while contractual capital inflows have experienced a dramatic decline. It is an analytical matter as well because most of the FDI studies begin with the question, “Why does a firm not rely on a contractual exchange when doing business abroad?”

A related development is the rising foreign equity controls of Chinese firms. Corporate control is a complicated concept but the simplest measure is the investor’s share of the equity ownership. The higher the share, the more control the investor is said to have since equity ownership is usually an indicator of how decision-making power is apportioned among investors, through, for example, the number of board seats one can appoint. Since many FIEs in China are JVs, decision-making is shared among Chinese and foreign investors. The allocation of decision-making power is determined on the basis of their respective shares of equity ownership.

Foreign firms have established majority controls over FIEs in most industries. Data from the late 1990s suggest that at the two-digit industry level, in the majority of industries foreign
equity controls exceeded 50 percent. Foreign equity control is only absent or small in those industries explicitly declared to be off-limits to FDI, such as tobacco industry. A new development since 2004 is that many first-generation entrepreneurs surrendered controlling stakes to foreign strategic investors. A case in 2006 concerns one of the largest electronic retail chain selling majority of its shares to Best Buy. In an economy growing at a double digit rate every year, Chinese entrepreneurs seem to have a strong desire to cash out, rather than building up their businesses for the long term.

Another characteristic is that foreign majority equity controls seem unrelated to some of the well-known features of these industries. Foreign majority controls span both labor-intensive industries, such as garments, footwear, and leather products, and capital-intensive industries, such as chemicals, machinery, and instrument manufacturing. This across-the-board foreign equity control contrasts with the Taiwanese pattern. In Taiwan foreign firms have dominant equity positions in certain industries, such as garments and footwear (71.8 percent), lumber and bamboo products (75.7 percent), and leather and fur products (79.6 percent). But in quite a number of industries, they are mere minority investors (such as nonmetallic minerals, chemicals, and the machinery industry).9

**OWNERSHIP BIASES IN CHINA**

The main hypothesis advanced in this paper is that many of the aforementioned FDI characteristics are driven by the institutional distortions in the Chinese economy. In particular, there are two types of distortions. One is the political pecking order that systematically favors the least efficient SOEs at the expense of the most efficient indigenous private-sector firms. The other distortion is derived from the first—the Chinese economic system favors FIEs at the expense of indigenous firms, especially indigenous private sector firms. These two types of distortions are succinctly summarized by the statement of Wu Kegang quoted at the beginning of this paper.

This section of the paper will detail the second distortion. The presence of the first distortion is relatively well-known and undisputable. The second type of distortions is less recognized; in fact, much of the Western conventional wisdom is just the opposite. Western MNCs and analysts often argue that China has an East-Asian version of industrial policy that protects domestic firms against foreign firms. Relatively systematic evidence directly contradicts this postulation.

9 The Taiwanese data are reported in Ranis and Schive (1985).
A dualist legal system

China’s legal system is explicitly dualist. Certain laws and regulations apply to foreign business activities and other laws and regulations apply only to domestic businesses. The dualist nature of the legal system even pertains to such basic issues as company incorporation, corporate governance, contract and tax issues. The dualist nature of China’s economic legislations is deeply rooted in the design and the approach of China’s reform. As a design matter, China’s reform has been primarily motivated to save, rather than dismantle, socialism. The separate legal regime designed for FIEs is simultaneously used to complement socialism as well as to insulate socialism from the full effects of FDI. China’s reform approach matters as well. China has permitted and, over time, encouraged the emergence of non-state firms by crafting new rules and policies while maintaining old rules and policies on the incumbents.

Compared to the FIEs, the legislative and regulatory treatments of domestic private firms have been far less transparent and more restrictive. As a simple but highly illustrative example, the constitutional protection of FIEs far exceeded that accorded to the domestic private firms. The Chinese state made a legislative commitment in 1979 and a constitutional commitment in 1982 not to nationalize or expropriate the assets of foreign investors without “due cause and compensation.” Only by 2007, did the Chinese state make a similar commitment to domestic private enterprises.

The initial intention to maintain a dualist legal regime was threefold. One was a recognition that the central planning mechanisms governing the state sector of the economy were fundamentally incompatible with firms operating in an international market environment. Thus imposing these mechanisms on foreign firms seeking to invest in China was self-defeating. The other consideration was to insulate domestic economy from the fluctuations of international economy. The most important reason, however, is that the Chinese state has mainly sought to use foreign capital—including FDI—to preserve, not to dismantle, socialism. To this extent, there is an internal coherence between actively courting FDI on the one hand and restricting domestic private sector on the other.

On balance, the legal treatment of FIEs has been far superior than that accorded to domestic private firms, although inferior to that of SOEs. The most remarkable example concerns the constitutional treatment of FIEs and domestic private firms. China’s Constitution, adopted in 1982, only six years after the Cultural Revolution, clarified and offered protection to the legal

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10 For an extensive analysis, see Gelatt (1983).
status of foreign enterprises operating in China (Article 18). Foreign enterprises were permitted “to invest in China and to enter into various forms of economic cooperation with Chinese enterprises and other Chinese economic organizations….” Article 18 also swore to protect their “lawful rights and interests.” While Article 12 prohibited “appropriation or damaging of state or collective property,” no such a commitment was made about the property rights of private enterprises. Only in March 1999, did the Chinese Constitution acknowledge private sector to be an integral part of the Chinese economy.

**Tax treatments**

The differences in tax treatments between foreign and domestic firms are well recognized. As a rule of thumb, until the tax unification of 2006, FIEs were taxed at 15 percent corporate profit rate whereas domestic firms’ rates ranged from 25 to 33 percent. It is not clear that the effective tax rates differ as much as the statutory tax rates because SOEs—and in recent years some large domestic private firms—received government subsidies. But it is safe to assume that tax treatments were different and tax burdens differed. In 2006, the Chinese government unified the corporate profit tax rates between FIEs and domestic firms but it is misleading to assume that tax treatments have been equalized as a result. The reason is that tax base still differs. FIEs are allowed to have full deductibility on their wage bills whereas domestic firms are only allowed to the extent of wage rates stipulated by the government. The government typically stipulates below the market wage rates in order to limit tax deductibility of domestic firms. As SOEs are subject to soft budget constraints, this tax treatment again falls heavily on indigenous private-sector firms.

Another form of tax bias is that the government is more likely to initiate audits of domestic firms than FIEs. Due to the limitations of the data, we can only show this pattern descriptively. Huang (2003a) shows that in 1992, in a nationwide auditing campaign, twice as many domestic firms were audited by the General Auditing Agency than FIEs in terms of the percentage share of all their respective firm populations.

Another difference in tax treatment has to do with the levying of “tax and surcharges,” which are defined in the Chinese statistical manual as the “tax on city maintenance and construction, consumption tax, resource tax and extra charges for education.” These are essentially surcharges collected by government agencies outside the Ministry of Finance.

Huang (2003a) shows that as a percentage ratio of sales, FIEs had the lowest ratios of this levy as compared with SOEs, collective firms and private firms. For all the manufacturing firms, FIEs paid 0.67 percent of their sales in the form of consumption and resource taxes and extra
fees; for SOEs, collective firms and private firms, it was 0.86 percent, 1.07 percent and 1.03 percent, respectively. Our finding here confirms a political pecking order of firms that I documented in (Huang 2003b), in which private firms in China got the worst tax and legislative treatment.

**Perceptions of business environment**

The paragraphs above describe a set of objective indicators. In the end it is the subjective measure that probably matters more. One can argue that domestic private firms are more optimistic and therefore a higher level of tax and legislative burdens do not affect their business operations whereas the more risk-averse foreign firms need policy inducements to make investments in China. If the risk aversion differs in the way postulated above, domestic firms and FIEs may view their business environment similarly despite the well-documented statutory differences.

We go to some perception data. Our perception data come from the World Business Environment Survey (WBES). The survey was implemented in 2000 and it focused on perceptions of factors external to the firm. Many dimensions of business environment were surveyed, ranging from perceptions of the national business environment as shaped by local economic policy; governance to the perceptions of regulatory, infrastructural and financial impediments and public service quality. The survey was done on roughly 100 firms in each of some 80 countries. For the first time, China agreed to be a part of this type of surveys.

A caveat in this type of survey research is that the responses given by foreign and domestic firms are not strictly comparable. Foreign firms may rate China’s business environment, implicitly or explicitly, against their own home economies. For domestic firms, the implicit benchmark could be China’s business environment in the past. If this is the case, it is entirely possible to have a rather low rating by foreign firms and a high rating by domestic firms because China’s business environment has improved over time but has not obtained the level prevailing elsewhere. The data provide some suggestive insights rather than definitive conclusions.

The WBES breaks down firms by their foreign and domestic ownership. Table 1 presents the average response scores given by foreign and domestic firms to a number of questions measuring regulatory burdens, rule of law, helpfulness of the government, and general business constraints. The minimum score is 1, indicating a good business environment perception; the maximum score ranges from 4 to 6, indicating a bad business environment perception.

[Insert Table 1 here.]
In some areas, domestic private firms feel more constrained than foreign firms; in other areas they feel less constrained. In general, domestic firms are constrained in the area of regulations. They gave a higher score for business and labor regulations and on general constraint on taxes and regulations. In general, foreign firms are less satisfied with China’s legal system than domestic firms, although domestic firms appear to have less confidence than foreign firms in China’s judicial system. Foreign and domestic private firms rate government similarly in terms of helpfulness of government, although domestic private firms view local governments as more helpful. On the two critical measures of a business environment, financing and corruption, domestic private firms indicate more constraints than foreign firms and on the issue of financing constraint, substantially so.

OWNERSHIP BIASES AND FDI

In this section, I explore the question whether or not there is a connection between the ownership biases documented above and China’s large FDI absorptions. I will first summarize a number of empirical projects that have looked into this question. I will then present a more detailed summary of an investigation based on survey data that has looked into policy biases and subjective preferences for FDI on the part of the private entrepreneurs in China.

Huang and Wen (2007) present evidence that legal and financial constraints imposed on the domestic private-sector firms reduced the bargaining power of the owners of those firms when they negotiated with foreign investors over the equity control of their alliances. (The data used are from the 1995 industry census.) On average, for a joint venture situated similarly economically (i.e., after controlling for firm size, export orientation, establishment years, industry characteristics, etc.), Chinese private shareholders hold 2.9 percentage points less equity as compared with a typical township and village enterprise (TVE), which is more controlled by the government. This is direct evidence of how greater equity concessions to foreign investors were induced by the political pecking order.

Based on provincial-level data, Havrylchyk and Poncet (2007) show that incoming foreign investments functioned as a “remedy” for the inherent weaknesses in Chinese financial and investment allocations. Their paper has an additional set of controls as compared with Huang and Wen (2007) but the findings are quite similar in that they show financial biases and inefficiencies of SOEs are actually correlated with more FDI inflows at the provincial level.

Several ongoing projects further refine some of the empirical implementation of the ownership-bias hypothesis. One paper is focusing only on labor-intensive FDI (Huang, Tao and Yang 2008). As pointed out before, FDI theories do not predict FDI to be present, let alone
dominant, in labor-intensive industries. The paper again finds that credit-constrained private-sector firms made more concessions on the equity structure as compared with those firms with access to finance. Another finding is that credit constraints only have this effect on private-sector firms. SOEs are unaffected by credit constraints. We also have evidence that credit constraints affect not only objective distribution of equity controls but also subjective preferences for FDI. Huang (2007) used private-sector survey data to illustrate this connection between FDI preferences and their access to formal finance.

Huang (2008) goes into some historical details to describe the political economy of the ownership biases. The conclusion is that the rise of technocratic leadership in the wake of Tiananmen was responsible for this acceleration of the policy biases in favor of FDI at the expense of indigenous private-sector firms. Huang and Qian (2008) show that this policy bias against indigenous private entrepreneurship takes on an extreme in a city that has been widely viewed as a huge success in FDI and globalization—Shanghai. The paper was able to identify a specific turning point in this policy bias in Shanghai—around 1986 and 1987, when the two leaders, who were to dominate the Chinese politics in the 1990s, Jiang Zemin and Zhu Rongji, created Shanghai’s policy model.

In the following paragraphs, I will present a detailed illustration of a study that connects ownership biases with FDI. The empirical findings are reproduced from the paper by Huang (2007). This paper compares two provinces, Jiangsu and Zhejiang. The reason for this comparison is that the pair comes closest to a natural experiment. The two are similar to each other in many aspects but differ in one critical detail important to the ownership bias view of FDI—ownership biases are far more substantial in Jiangsu than in Zhejiang. Consistent with our hypothesis, Jiangsu is far more dependent on FDI than Zhejiang in its economic development. We will supplement this aggregate description with firm-level survey data to document this connection.

An FDI story of two provinces

The following paragraphs show that in Jiangsu FDI was a more important source of financing, was distributed more widely in the manufacturing industries, and generated more export production than FDI in Zhejiang. In the 1990s, there were some substantial differences in the FDI patterns between the two provinces. For one thing, Jiangsu depended far more heavily on FDI financing than did Zhejiang, despite the fact that their initial FDI dependency was quite similar. On average, in the second half of the 1980s, both provinces drew very little FDI, as measured by the proportion of FDI to total fixed asset investments. In the first half of the 1990s,
as China became more open to FDI, this ratio rose in both provinces, but much more rapidly in Jiangsu. On average, FDI accounted for 13.6 percent of fixed asset investments in Jiangsu, which was more than twice the level in Zhejiang during the same period (5.7 percent). These contrasts are shown in Table 2.

Both Jiangsu and Zhejiang are China’s export powerhouses and they are open to foreign trade to a similar degree. In 1995, the foreign trade/GDP ratio was identical in the two provinces, around 27 percent. This was a substantial increase from 1981 when foreign trade accounted for 5.8 percent of Jiangsu’s GDP and 4 percent of Zhejiang’s GDP. There are, however, two significant differences between Jiangsu and Zhejiang. One is that the increase in Jiangsu’s foreign trade/GDP ratio was driven by both exports and imports. In the case of Zhejiang, export growth was the main driver.

The other difference is that export growth was faster in Zhejiang. Annual average export growth was 28 percent in the case of Zhejiang, but only 9.3 percent in the case of Jiangsu. Exports accounted for 20 percent of GDP in Zhejiang in 1995, but only 8.1 percent in Jiangsu. These two patterns cast doubt on the conventional wisdom that export success requires FDI. In fact, one can argue that an FDI-induced export success is associated with smaller domestic value added. FIEs in Jiangsu are mainly engaged in the import-intensive export processing operations whereas export-oriented firms in Zhejiang primarily source from local firms.

We pointed out before that one prominent characteristic of China’s FDI is its wide industry distribution. It turns out that this China pattern is reflected in the Jiangsu data but not in Zhejiang data. The data here refer to the percentage distribution of fixed asset investments by FIEs and of foreign equity across 29 manufacturing industries in the two provinces, respectively. (The 29 manufacturing industries are given by the 2-digit Chinese standard industry classification.) Whether the presence of FDI is measured by the industry share of fixed asset investments by FIEs or by the industry share of equity held by foreign firms in FIEs, all the indicators point in the same direction—the presence of FDI is spread in more industries in Jiangsu than in Zhejiang. In other words, some industries in Zhejiang received a lot of FDI, but others received relatively little, whereas in Jiangsu, relatively speaking, FDI flowed to all industries more evenly.

The most straightforward indicator is the share of the top three industries with the largest FDI presence. In Zhejiang province, the top three industries with the largest fixed asset investments are, respectively, papermaking and paper products (18.5 percent), smelting and pressing of ferrous metals (9.7 percent), and textiles (8.9 percent). These three industries
combined accounted for 37.1 percent of fixed asset investments by FIEs in 1997. In Jiangsu province, the top three industries with the largest fixed asset investments are, respectively, transportation equipment (11 percent), papermaking and paper products (9.6 percent), and special purpose equipment (9.3 percent). These three industries combined accounted for 29.9 percent of all fixed asset investments made by FIEs in 1997. In addition, both the standard deviation and coefficient of variation values for the industry distribution of fixed asset investments by FIEs in 1997 are larger for Zhejiang than they are for Jiangsu.

**Ownership biases in Jiangsu and Zhejiang**

There are some substantial differences between the two provinces in terms of ownership biases. To put it briefly, Jiangsu is known for its statist developmental model known as Sunan model. Zhejiang is known for its laissez faire model of development known as Wenzhou model.

The pair started out in the early 1980s similarly. In 1980, the size of the domestic private sector—the non-state sector minus the collective firms, such as TVEs and FIEs—in the two provinces was virtually identical. In Jiangsu, domestic private firms accounted for 0.53 percent of total industrial output value, compared with Zhejiang’s 0.57 percent. In the 1980s and 1990s, the domestic private sector grew much faster in Zhejiang. In 1995, domestic private firms generated 38.7 percent of Zhejiang’s industrial output value, compared with 10.5 percent in Jiangsu. After 1995, the two provinces began to converge somewhat. By 2001 domestic private firms generated 69.3 percent of gross industrial output value in Zhejiang, compared with 44.7 percent in Jiangsu.

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11 The private sector is defined here as the residual of the industrial output value of all firms minus that of the SOEs, collective firms, and FIEs. By this definition, some of the firms tangentially privately owned are also counted as private firms, e.g., shareholding firms. A stricter definition of private firms, i.e., firms that are solidly controlled by private entrepreneurs, would yield a higher differential between Zhejiang and Jiangsu. The output value of privately-operated (siying) and individually-operated (geti) firms accounted for 34.4 percent of total industrial output value in Zhejiang but only 6.2 percent in Jiangsu.

12 Since the late 1990s, there has been some convergence of the two models—in the direction of the Zhejiang model. It is beyond the scope of this paper to delve into this issue. But one hypothesis is that by the late 1990s private sector development became a more acceptable policy goal of the government. And Jiangsu simply followed the national trend. Thus it is not so much that Jiangsu began to converge with Zhejiang but that the rest of China began to converge...
This difference in private sector development was mainly due to the contrasting economic models of the two provinces. In Jiangsu, the “Sunan model” prevailed whereby the government played a heavy sponsorship and operating role in enterprise management and supported collectively-owned TVEs rather than, or even to the detriment of, genuinely private firms. The Sunan model was widespread in much of southern Jiangsu, but three cities, Wuxi, Suzhou, and Changzhou, are considered to be the progenitors of this model. The other is the Wenzhou model which is characterized by a heavy reliance on private initiatives, a non-interventionist government style in the management of firms, and a supportive credit policy stance toward private firms. Wenzhou, a city in southern Zhejiang province, is the best-known example of this model (hence the name of the model).

The Sunan and Wenzhou models differ on several dimensions. First, government control of firms was far tighter in Jiangsu. Wenzhou favored a far more laissez-faire policy stance and did not exercise this kind of micro-management. Second, until the mid-1990s, Jiangsu actively suppressed the development of private firms. The tight labor regulations reduced the availability of quality human capital to the private sector and the strict registration procedures prevented private entrepreneurs from falsely registering their firms as collective firms, a popular mechanism to evade the prohibitions on private firms and to acquire some rudimentary property rights security associated with the closer relationship with the state. Jiangsu wanted to conserve raw materials and energy and to protect TVEs as much as possible from competition for human and financial resources. Private enterprises “are tolerated, but their development has been constrained by limits on loans, restricted access to inputs, and environmental and other regulations” (Svejnar and Woo 1990, p. 80). As a result of this bias, the dominance of the more government-controlled TVEs was overwhelming in Wuxi.

Wenzhou of Zhejiang presents a sharp contrast to Wuxi in many aspects. Wenzhou was a vibrant trading port up through the Republican (1911-49) era (so were, incidentally, Suzhou and Wuxi of Jiangsu), but in the first thirty years of the PRC (1949-79) period, its economy stagnated. It was considered high-risk by the central government because of its proximity to Taiwan. In addition, it is difficult to reach by travel and it is not near any other major Chinese cities. It is flanked by mountains on one side and the East China Sea on the other; a 500 km ferry ride from Shanghai was the primary way to get to Wenzhou until a small airport was built there with private funds in 1990. In 1998 a railway was opened from Wenzhou to Jinhua city in Zhejiang province.

with Zhejiang in the late 1990s. For a detailed study of privatization activities, see Garnaut et al. (2005).
Because its proportion of arable land was so low (only 0.42 mu per capita vs. 0.65 for the province as a whole and 1.4 nationwide), it was never a major agricultural center, nor was it known for advanced industrial development. Much of the rural labor force was unemployed or underemployed at the beginning of the reforms. Nevertheless, a private economy of petty commodity producers, retail vendors, and wholesale traders emerged early on in Wenzhou. At the formal commencement of the rural reforms in 1979 there were already an estimated 1,844 micro-entrepreneurs in the area; three years later, the number had increased eleven-fold to 20,363.\footnote{The data in this section come from Tsai (2002, pp. 122-124).}

The centerpiece of the Wenzhou model was an active informal credit market servicing the private enterprises, much of which was not sanctioned by the central government. Despite the dynamism of the private sector, “the state banking system was neither willing or jurisdictionally able to meet the credit needs of the new generation of individual entrepreneurs” (Tsai 2002, pp. 122-3). In the 1980s, the thriving informal financing mechanisms included rotating credit associations (\textit{hui}), money houses, and credit cooperatives. The Wenzhou government, rather than curtailing the informal credit facilities, tried to incorporate them into the formal financial sector. Its reasoning is particularly indicative of the economic liberalism of Wenzhou—informal finance should be made official to enhance regulatory supervision and to better meet the rising credit demand from the private sector (Tsai 2002, pp. 157-158).

There are, however, differences in the formal financial sector as well. Banks in Zhejiang lent more to the private sector than banks in Jiangsu, although in both provinces the bulk of lending has always gone to the state sector. In Jiangsu province, the private sector received a smaller share of credit resources compared with the private sector in Zhejiang. During the 1990-95 period, loans directly allocated to the private sector on average amounted to 4.3 percent of total loans in Jiangsu; the same figure for Zhejiang was 8 percent.\footnote{Loans allocated to the private sector are defined as the sum of the loans that go to individually-owned businesses and a category called “other loans.” “Other loans,” according to Lardy (1998), represent credit from banks to non-bank financial institutions. Non-bank financial institutions typically lend to private or non-state entities. The category of individually-owned businesses does not include the other type of private businesses, which are known as privately-run businesses, defined as those with hired labor of eight or more employees. Also the figure does not include loans that are directly allocated to SOEs, which then on-lend to the private firms. Data on this type of loans are simply unavailable. It is possible that the exclusion of this type of}
Zhejiang is that the direct credit allocation to the private sector was already substantial in the 1980s. On average, between 1985 and 1989, 6.9 percent of the loans went to the private sector, as compared with 1.7 percent in Jiangsu.

**Ownership biases and FDI: An empirical demonstration**

The data came from a large-scale private-sector survey conducted in 2002. This was a part of a regular series of surveys on the private sector. These surveys are nationwide surveys, covering all the provinces in China and they enable a detailed comparison between Jiangsu and Zhejiang.\(^1\) The main questions of the survey cover (1) firm size, status of development,
organization, and operation; (2) management system and decision-making style; (3) social-economic background of enterprise owners; (4) social mobility and network of owners; (5) source and composition of employees and employee-employer relations; (6) self-assessment by entrepreneurs on a range of issues related to government-business relations, business environment, financing, and (7) income, expenditures, and assets of entrepreneurs. Critical for our purposes, the 2002 survey includes questions about intentions or plans to form joint ventures with foreign firms. The responses to these questions will be the basis for the dependent variable in this paper.

The first dependent variable takes 5 discrete values, ranging from 1 to 5. The FDI question in the two surveys can be construed as a ranking of the strength of FDI preferences. The firms that have already formed joint ventures can be said to have the strongest FDI preferences and those firms that are forming or contemplating to form joint ventures have the next strongest FDI preferences. The firms that have not planned or have not thought about setting up joint ventures have the weakest FDI preferences. Our first dependent variable, FDIPREF1, takes the value of 1 for firms that have not contemplated forming joint ventures, 2 for firms that are not planning to form joint ventures, 3 for firms that are planning to form joint ventures within 3 to 5 years, 4 for firms that are in the process of negotiating joint ventures, and 5 for firms that have already formed joint ventures. The second is a dummy variable (FDIPREF2), which takes the value of 1 if a firm has chosen 1), 2), or 3) in its answer to this question and takes on a value of 0 if it has chosen 4) or 5).  

In the 2002 survey, out of 706 valid observations, half of the firms have formed or are in the process of forming joint ventures with foreign firms. In comparison, the 2002 survey includes firms located in 17 cities (11 in Jiangsu and 6 in Zhejiang), ranging from well-developed to less-developed regions and providing substantial variation in terms of economic and institutional development levels. An additional reason is that the quality of the ownership bias measure based on the 2002 survey is better.

In the empirical implementation, in order to capture more precisely the idea of FDI preferences, we also exclude those firms that have already formed joint ventures with foreign firms in some of the regression runs and the dependent variable becomes a choice between planning to form a joint venture and not planning to form a joint venture. This is designed to eliminate any potential for an endogeneity problem—that the ownership bias refers to the bias against private firms with foreign-owned assets. Ex ante, however, as will be explained later, this should not be a problem.
The main independent variables consist of a number of firm-level variables that either directly measure ownership biases or can be construed as measures of ownership biases. In the 2002 survey, our ownership bias variable is formulated on the basis of responses to Question 20a3. Question 20a3 asks the respondents to choose one principal reason for difficulties in obtaining bank loans. The choices are: 1) ownership discrimination, 2) collateral and guarantee conditions being too difficult, 3) financial disclosure requirements being too stringent, 4) credit ratings requirements being too strict, 5) high interest rates, 6) maturity terms being too short, 7) insufficient credit amount, and 8) other reasons.

The variable—BANK_BIAS—is coded 1 if firms blamed difficulties in obtaining bank loans on an ownership bias and 0 otherwise. This is our primary ownership bias measure (BANK_BIAS). In the two-province sub-sample, 64 out of 614 firms with valid observations viewed bank discrimination as rooted in ownership considerations rather than in more technical considerations (such as collateral requirements).

All the regression runs include controls of a number of firm, industry, and region-level attributes. Because much of the FDI literature focuses on why foreign firms invest abroad, rather than why domestic firms seek foreign capital, there is not much theoretical guidance about what are the relevant firm-level independent variables. Technology features prominently in FDI discussions so we conjecture here that a more technologically-intensive domestic firm may desire to form an alliance with a foreign firm as a way to access technology. The 2002 survey asks respondents whether or not they hold patents and we created a technology variable coded as 1 for firms with patents and 0 for firms without patents. There are also alternative measures of firm size in all the regressions. One measure is the employment size; the other measure is the sales value of the firms.

Regression runs include additional controls. One set of controls refers to three locational variables. One is a dummy variable for development zones. Many regions in China have created development zones with the specific purpose of attracting FDI. The second is a countryside dummy variable depending on whether or not a firm is located in the countryside. The third is a regional dummy variable to differentiate regions within as well as between the two provinces.

All the regression runs include a dummy for manufacturing industries or all the industry dummies. The survey breaks down firms by fifteen industries—1) agriculture and fishery, 2) mining, 3) manufacturing, 4) electricity and gas, 5) construction, 6) geology, 7) transport, 8) commerce, 9) finance, 10) real estate, 11) social services, 12) health and sports, 13) science and technology, and 15) others. The majority of the firms are in the manufacturing sector. For example, in the 2002 survey, they account for 397 out of 733 observations for the two-province
sub-sample and some sectors have no firms at all (such as finance). However, there is no further disaggregation of manufacturing firms, which makes it difficult to control for a number of potentially relevant industry characteristics. Fortunately, due to the entry restrictions imposed on private firms in the 1990s, it is safe to assume that most private firms might have operated in relatively labor-intensive industries. Therefore, after the variables measuring patent holdings and firm size, the hope is that industry characteristics among the manufacturing private firms are not substantially different. Our default strategy is to include a manufacturing industry dummy, although we also experimented with regressions that include all fifteen industry dummies (minus the benchmarked one).

Table 4 and Table 5 present regression findings. Table 4 reports the ordered probit regression results for the likelihood of forming joint ventures (JVs) with foreign firms, our measure of FDI preferences in this paper. The dependent variable, FDIPREF1, ranges from 1 (=having not thought about forming a JV) to 5 (=already having formed a JV). The five specifications in the table vary with the sample selection and types of other controls included in the regressions. Specifications 1, 2, 4, and 5 are based on the Jiangsu/Zhejiang sub-sample from the 2002 survey. Specification 3 is based on the entire national sample. Specifications 1, 2, and 4 include the 16 regional dummies (with Wuxi being the omitted category). Specification 5 includes only a Zhejiang dummy (=1 and Jiangsu=0). Specification 3 uses the whole national sample with 30 provincial dummies. (Zhejiang is the omitted province.) Specifications 1, 2, 3, and 5 include one dummy for the manufacturing industry, whereas specification 4 includes 14 industry dummies (out of a total of 15 industries). All the regressions include a period dummy denoting those firms created since 1991, a size variable (log employment), a technological variable (a dummy for those firms holding patents), and two locational variables (whether located in a development zone or in the countryside, with the omitted category being the city variable).

Table 4 about here.

The control variables in the regressions conform with our theoretical or intuitive postulations. Larger firms—as measured by employment—have stronger FDI preferences, as do technologically sophisticated firms. These two findings are entirely consistent with well-established findings in the FDI literature (although the conventional literature approaches the question from the perspective of foreign investing firms). The locational variables are consistent with what one might have expected. Firms located in development zones—which are set up specifically to attract FDI—have stronger FDI preferences than firms located outside development zones. Firms located in rural areas, which may not enjoy the same level of contacts with foreign firms as firms located in cities, have weaker FDI preferences.
The variable of interest is the ownership bias measure, i.e., bank bias (BANK_BIAS), which is a dummy variable denoting those firms that viewed credit difficulties as grounded in an ownership bias. In all five specifications, BANK_BIAS is consistently positive and consistently statistically significant. In the two-province sub-sample, the coefficient for BANK_BIAS ranges from 0.36 to 0.44, with the statistical significance levels between 1 and 5 percent. This means, all else being equal, those domestic private firms that viewed bank discrimination as rooted in ownership considerations were more likely to form JVs with foreign firms than those firms that viewed bank discrimination as rooted in technical considerations (such as high collateral requirements). This finding is true for both the two-province sub-sample as well as for the national sample as a whole (specification 3) and it is robust to a variety of province, city, and industry controls.\footnote{17}

Before we conclude that an ownership bias seems to correlate positively with FDI preferences, let us consider a number of complications. One is the possibility that BANK_BIAS is endogenous of foreign ownership rather than the other way around, as postulated by the ownership-bias hypothesis. Economists and social scientists in general often assume that governments discriminate against foreign firms and protect domestic firms. This is known as the “national preference” view of the world.\footnote{18} Following the national preference view, for example, one may argue that Chinese banks discriminate against those private firms with partially foreign-owned assets in favor of those private firms without such assets.

\footnote{17} Specification 5 utilizes the entire national sample of firms in the 2002 survey. For this regression, 30 provincial dummies are included, with Zhejiang being the omitted category. It should be pointed out that for the entire national sample, the size of the coefficient is considerably smaller and the level of statistical significance is also smaller (at 10 percent). This should be investigated further. One possibility is that Jiangsu and Zhejiang differed most sharply in terms of bank policies but not on other dimensions of policies toward the private sector by the time the 2002 survey was carried out. For example, in the national sample, entrepreneurs with the largest financial assets more strongly desired FDI than those entrepreneurs with smaller financial assets, but there is no difference for the Jiangsu/Zhejiang sub-sample. One reason may be that a fear of outright seizure of private property is present in other parts of China, but not in Jiangsu or Zhejiang.

\footnote{18} In FDI research, there is a long and venerable view that host governments discriminate against foreign firms in order to protect domestic firms. The term, “national preference,” belongs to (Caves 1996).
On *ex ante* grounds, this scenario is unlikely. As early as 1986, the State Council decreed that banks would treat FIEs as favorably as SOEs, a level of treatment domestic private firms did not receive until probably 2002 or 2003. Nevertheless, this endogeneity concern can be addressed empirically. Specification 2 excludes those private firms that already have formed JVs with foreign firms. The dependent variable then denotes pure FDI preferences, ranking firms in the process or planning to form JVs vis-à-vis firms with no intention of forming JVs. BANK_BIAS remains positive and statistically significant. In fact, one can go a step further, by dropping those firms in the process of forming JVs as well. The remaining firms are those with plans to form JVs within 3 to 5 years, those without such plans, and those that have not considered this option at all. This procedure produces a BANK_BIAS coefficient of 0.415 at a 5 percent significance level. (This result is not reported in the table.)

The second concern is that there may be an interaction effect between BANK_BIAS and the firm-level attributes. For example, it is reasonable to conjecture that only firms that enjoy ownership security can grow to be large and can have the resources to invest in R&D. Thus the reported BANK_BIAS results may simply reflect this effect. To investigate this possibility, specifications 1, 2, and 3 in Table 5 experimented with alternative measures of firm controls or omitted the firm-level attributes altogether.

Under specification 1, the size of a firm is measured by the sales value, rather than the size of employment. Under specification 2, the technological sophistication of a firm is measured by the ratio of technicians to total employment. Specification 3 omits all the firm-level controls. BANK_BIAS remains positive and statistically significant throughout. Specifications 5 and 6 provide additional checks on our findings. The dependent variable is now a binary measure, with those firms planning to form, in the process of forming, or having already formed JVs being coded 1 or 0 otherwise (FDIPREF2). Specification 6 omits those firms that have already formed JVs in order to denote more sharply the idea of “preference.” BANK_BIAS is positive and is statistically significant at 1 percent in both specifications.

Specification 4 adds two additional firm-level controls—the amount of fixed asset investments made in 2001 and the estimated capital requirements to further expand production.\(^{19}\)

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\(^{19}\) We also include additional firm-level controls such as company debt, whether or not the firm was privatized from an SOE, and a measure of insider controls. (The insider control dummy is derived from Question 17d, which asked the respondent to agree or disagree with the following statement: “For the sake of the stable development of your firm, I or my relatives must
BANK_BIAS remains positive and statistically significant at 1 percent. This procedure can address another potential concern. Because our ownership bias measure here is a measure of bank policies, there is a question about how to interpret BANK_BIAS. For example, one can argue that BANK_BIAS reflects the difficulties in obtaining bank loans and thus the FDI preferences can correlate with a desire to obtain capital from foreign firms. Although this interpretation does not invalidate the general argument that a policy bias against private firms increases FDI preferences, it points to financial, as opposed to property rights, motivations.

To address this concern, it is important to emphasize that those domestic private firms on the 1/0 values of the BANK_BIAS do not necessarily differ in terms of the degree of credit constraints. The question is about how to interpret difficulties in obtaining credit, not whether or not there are credit constraints. Both types of firms believe that obtaining bank loans is difficult, but those private firms that seem to have stronger FDI preferences interpret the difficulties in ownership terms. This is a cleaner test of the effect of the ownership bias on FDI preferences as it allows us to separate the purely financial motivations of obtaining capital from foreign firms via FDI and the legal motivations of obtaining a foreign status from foreign firms via FDI.

Empirically, as shown in specification 4, the inclusion of variables that denote some explicit measures of financial motivations—such as estimated capital requirements for production expansion—do not make the effect of BANK_BIAS disappear.

One last concern relates to that of an omitted variable. The 2002 survey did not ask respondents whether or not they export. This may bias our finding in the following way. It is often postulated that exporting firms desire FDI because FDI can provide overseas marketing channels. But this positive correlation between exports and FDI can affect the ownership bias. A number of economists have postulated that the Chinese government discriminates against private firms because it does not have the administrative and technical capabilities to monitor private firms (in comparison with the SOEs). Exporting private firms are most difficult to monitor because they can keep their revenues abroad. Bank discrimination arises via this mechanism. This concern can only be addressed in the future with better data.

\[\text{(20)}\]

manage the firm.” Those who agree with this statement are coded 1; those who disagree are coded 0.) BANK_BIAS is not affected.

\[\text{(20)}\] See Bai et al. (1999).
CONCLUSION

The main idea behind the ownership-bias hypothesis is that institutional distortions in the Chinese economy may have driven up FDI inflows into China. There are a number of specific mechanisms. One is that these distortions reduce the bargaining power of the biased firms and this dynamic may have reduced the valuation of the private-sector firms seeking to establish joint ventures, thus increasing foreign control. The other mechanism operates on the demand side—biased firms may have an incentive to seek FDI as FDI is a source of financing and of some legal security.

The claim here is that these dynamics are broadly and descriptively consistent with a number of prominent characteristics of China’s FDI inflows, such as the high volume of FDI inflows, pervasive presence of FIEs, and the presence of FDI in labor-intensive industries. A number of research projects provide statistical evidence connecting ownership biases with FDI inflows. This paper provides a detailed summary of one research project that links the subjective preferences for FDI to the credit biases against entrepreneurs.

This line of research linking ownership biases with FDI inflows entails substantial policy implications. One implication of our findings is that FDI is an offset to institutional distortions and as such FDI is ameliorative rather than additive to economic growth. This view of FDI contradicts a common view that FDI is a boost to growth up and beyond the natural rate of growth. If FDI is a remedy, rather than a reward as shown by Havrylchyk and Poncet (2007), then FDI merely restores the growth to the natural rate of growth.

We have some broad evidence that supports this view of FDI. Many economists believe that globalization has contributed to the sharp reduction of poverty in China. A close look at the data suggests a different view. China reduced poverty substantially during the reform era, based on the poverty lines devised by Ravallion and Chen (2007), but almost 80 percent of this reduction occurred during eight years, between 1981 and 1988 when trade and FDI were a minuscule portion of the Chinese economy. The massive volume of FDI and trade occurred almost entirely in the 1990s but this “globalization period” is associated with a less-than-stellar record of poverty reduction. In fact, the globalization period witnessed several episodes of an “absolute” increase in the poverty level. While the causal connections need to be explored further, recent research shows that 10 percent of China’s population—about 130 million people—registered an absolute income decline in the wake of WTO accession (reported in McGregor 2006).
The growth data from Jiangsu and Zhejiang suggest that less FDI is actually associated with faster growth. By the criterion of FDI, Jiangsu province has been a huge success story. In absolute terms, Jiangsu ranks as the second largest provincial recipient of FDI (after Guangdong province). In 2002, Jiangsu received $10.2 billion in FDI, which accounted for nearly one-fifth of the total FDI inflows into China. In contrast, the FDI inflows into Zhejiang amounted to only $3.1 billion in the same year. The less-than-stellar FDI inflows into Zhejiang prompted several research organizations—including the World Bank—to give a low score to cities in Zhejiang in terms of international integration.

But over the period since the late 1970s, Zhejiang has consistently outperformed Jiangsu with respect to economic growth and growth of per capita GDP. While both are prosperous, Jiangsu and Zhejiang got where they are today via fundamentally different processes. Zhejiang is rich largely through a catch-up process; Jiangsu is rich today but it has always been rich. In 1980, Jiangsu already had the second largest GDP in the country (after Sichuan) and it produced almost twice as much as Zhejiang did. In per capita income terms, Jiangsu occupied exactly the same position in 1980 as it did in 2003—number three in the country (excluding Beijing, Shanghai, and Tianjin, which do not have an agricultural sector). In contrast, Zhejiang ranked seventh in the country in 1980 but it ranked first by 2003 (again excluding Beijing, Shanghai, and Tianjin). In 1978, Zhejiang was substantially poorer than Jiangsu; today it is richer.

The findings from this paper suggest, at the very least, that there are many complex issues related to FDI research. While far more research is warranted to look deeply into the questions of FDI in China, available evidence suggests that at least there is room for debate on both the drivers and the effects of FDI inflows.
Table 1 The average response scores given by foreign and domestic private firms on business environment in China, 2000

<table>
<thead>
<tr>
<th>Category</th>
<th>Foreign firms</th>
<th>Domestic private firms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business regulations: 1=no obstacle; 4=major obstacle</td>
<td>1.79</td>
<td>1.90</td>
</tr>
<tr>
<td>Labor regulations: 1=no obstacle; 4=major obstacle</td>
<td>1.62</td>
<td>1.70</td>
</tr>
<tr>
<td>General constraint-taxes and regulations: 1=no obstacle; 4=major obstacle</td>
<td>1.86</td>
<td>2.17</td>
</tr>
<tr>
<td>Confidence in judicial system today: 1=fully agree; 6=fully disagree</td>
<td>2.59</td>
<td>2.77</td>
</tr>
<tr>
<td>Quality of courts: 1=very good; 6=very bad</td>
<td>3.15</td>
<td>2.97</td>
</tr>
<tr>
<td>Changes in laws and regulations: 1=completely predictable; 6=unpredictable</td>
<td>3.37</td>
<td>3.15</td>
</tr>
<tr>
<td>Helpfulness of central government today: 1=Very helpful; 5=Very unhelpful</td>
<td>3.0</td>
<td>3.02</td>
</tr>
<tr>
<td>Helpfulness of local government today: 1=Very helpful; 5=Very unhelpful</td>
<td>2.76</td>
<td>2.62</td>
</tr>
<tr>
<td>General constraint—financing: 1=no obstacle; 4=major obstacle</td>
<td>2.93</td>
<td>3.48</td>
</tr>
<tr>
<td>General constraint—corruption: 1=no obstacle; 4=major obstacle</td>
<td>1.93</td>
<td>2.13</td>
</tr>
</tbody>
</table>

Source: The data are contained in Batra, Kaufmann, and Stone (2003)
Table 2 Various Measures of FDI Developments (%)

<table>
<thead>
<tr>
<th>FDI/fixed asset investment ratios</th>
<th>Jiangsu</th>
<th>Zhejiang</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>--1985-89 annual average</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1) Of all firms</td>
<td>0.63</td>
<td>0.65</td>
</tr>
<tr>
<td>2) Of non-state sector firmsa</td>
<td>1.27</td>
<td>1.25</td>
</tr>
<tr>
<td>3) Of domestic private firmsb</td>
<td>2.16</td>
<td>2.19</td>
</tr>
<tr>
<td><strong>--1990-95 annual average</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1) Of all firms</td>
<td>13.6</td>
<td>5.7</td>
</tr>
<tr>
<td>2) Of non-state sector firmsa</td>
<td>21.4</td>
<td>10.5</td>
</tr>
<tr>
<td>3) Of domestic private firmsb</td>
<td>93.9</td>
<td>31.8</td>
</tr>
<tr>
<td><strong>Roles of FIEs</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>--Industrial FIE shares of sales of all industrial firms</td>
<td>18.9</td>
<td>17.0</td>
</tr>
<tr>
<td>1995</td>
<td>28.3</td>
<td>18.6</td>
</tr>
<tr>
<td>2001</td>
<td></td>
<td></td>
</tr>
<tr>
<td>--Industrial FIE shares of profits of all industrial firms</td>
<td>31.0</td>
<td>21.7</td>
</tr>
<tr>
<td>1995</td>
<td>37.8</td>
<td>19.8</td>
</tr>
<tr>
<td>2001</td>
<td>4.4</td>
<td>3.9</td>
</tr>
<tr>
<td>--Gross profit margins of industrial FIEs&lt;sup&gt;c&lt;/sup&gt;</td>
<td>5.0</td>
<td>6.3</td>
</tr>
<tr>
<td>1995</td>
<td>19.1</td>
<td>14.6</td>
</tr>
<tr>
<td>2001</td>
<td></td>
<td></td>
</tr>
<tr>
<td>--Average foreign equity stake in 27 manufacturing industries, 1995</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Notes: a: Non-state sector firms refer to collective firms, FIEs, and domestic private firms. b: The denominator does not include fixed asset investments made by FIEs. c: Gross profit margins refer to profits divided by sales revenue.
Table 3 Descriptive Statistics of Major Variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Definition</th>
<th>Mean</th>
<th>Std Dev.</th>
<th>Min.</th>
<th>Max.</th>
<th>Obs</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2002 private sector survey</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FDIPREF1</td>
<td>5 discrete values from 1 (=have not thought about forming a JV) to 5 (=already formed a JV)</td>
<td>2.40</td>
<td>1.4</td>
<td>1</td>
<td>5</td>
<td>706</td>
</tr>
<tr>
<td>FDIPREF2</td>
<td>1 if the firm has formed a JV, is forming, or is in the process. 0 if not in the process or no such a plan.</td>
<td></td>
<td></td>
<td>0</td>
<td>1</td>
<td>706</td>
</tr>
<tr>
<td>Bank bias (BANK_BIAS)</td>
<td>1 if credit discrimination viewed as ownership-related and 0 for bank discrimination on technical grounds.</td>
<td></td>
<td></td>
<td>0</td>
<td>1</td>
<td>614</td>
</tr>
<tr>
<td>Employment</td>
<td>Employment in persons in 2001.</td>
<td>159</td>
<td>293</td>
<td>1</td>
<td>3000</td>
<td>726</td>
</tr>
<tr>
<td>Sales</td>
<td>Values of sales in 2001 (in 10,000 yuan)</td>
<td>2770</td>
<td>7172</td>
<td>2</td>
<td>77000</td>
<td>697</td>
</tr>
<tr>
<td>Patent dummy</td>
<td>1 for firms with patent holdings and 0 otherwise.</td>
<td></td>
<td></td>
<td>0</td>
<td>1</td>
<td>694</td>
</tr>
</tbody>
</table>

Note: "": Observations with missing values are excluded.
<table>
<thead>
<tr>
<th>Specification</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Owner bias:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bank bias</td>
<td>0.398***</td>
<td>0.424***</td>
<td>0.099*</td>
<td>0.438***</td>
<td>0.365**</td>
</tr>
<tr>
<td>(BANK_BIAS)</td>
<td>(0.155)</td>
<td>(0.17)</td>
<td>(0.05)</td>
<td>(0.158)</td>
<td>(0.151)</td>
</tr>
<tr>
<td>Firm attributes:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Log employment</td>
<td>0.227***</td>
<td>0.143***</td>
<td>0.024***</td>
<td>0.219***</td>
<td>0.245***</td>
</tr>
<tr>
<td></td>
<td>(0.04)</td>
<td>(0.04)</td>
<td>(0.018)</td>
<td>(0.14)</td>
<td>(0.039)</td>
</tr>
<tr>
<td>Patent dummy</td>
<td>0.296**</td>
<td>0.329**</td>
<td>0.48***</td>
<td>0.284**</td>
<td>0.255**</td>
</tr>
<tr>
<td></td>
<td>(0.138)</td>
<td>(0.15)</td>
<td>(0.059)</td>
<td>(0.14)</td>
<td>(0.133)</td>
</tr>
<tr>
<td>Location:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Development zone</td>
<td>0.231</td>
<td>0.405**</td>
<td>0.161*</td>
<td>0.151</td>
<td>0.38**</td>
</tr>
<tr>
<td></td>
<td>(0.197)</td>
<td>(0.22)</td>
<td>(0.09)</td>
<td>(0.20)</td>
<td>(0.19)</td>
</tr>
<tr>
<td>Countryside</td>
<td>-</td>
<td>-0.347***</td>
<td>-0.189***</td>
<td>-</td>
<td>-0.22**</td>
</tr>
<tr>
<td></td>
<td>(0.117)</td>
<td>(0.126)</td>
<td>(0.05)</td>
<td>(0.119)</td>
<td>(0.11)</td>
</tr>
<tr>
<td>Other controls:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Provincial dummies</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Zhejiang=1</td>
</tr>
<tr>
<td>Regional dummies</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Jiangus=0</td>
</tr>
<tr>
<td>Manufacturing dummy</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Industry dummies</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Period dummy (since 1991)</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Observations</td>
<td>572</td>
<td>511</td>
<td>2625</td>
<td>572</td>
<td>572</td>
</tr>
</tbody>
</table>

Note: Standard errors are in brackets. *: 0.10, **: 0.5 and ***: 0.01.
Table 5 FDI Preferences and Ownership Bias: Alternative Independent and Dependent Variables (2002 survey)

<table>
<thead>
<tr>
<th>Dependent variable:</th>
<th>Ordered probit: FDIPREF1 (=1 if having not thought about forming JV; 2=no plan to form JV; =3 if planning to form JV in 3-5 years; =4 if already in the process of forming JV, and =5 if already formed JV)</th>
<th>Probit: FDIPREF2 (=1 if planning to form JV in 3-5 years or already in the process of forming JV or already formed JV; =0 if no plan to form JV or having not thought about forming JV)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Specification:</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Explanation:</td>
<td>Size measured by sales</td>
<td>Technology measured by technicians/employment ratio</td>
</tr>
<tr>
<td>Ownership bias:</td>
<td>0.394*** (0.16)</td>
<td>0.366** (0.173)</td>
</tr>
<tr>
<td>Bank bias (BANKBIAS)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Firm attributes:</td>
<td>0.128*** (0.032)</td>
<td></td>
</tr>
<tr>
<td>Log sales</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Log employment</td>
<td>0.21*** (0.045)</td>
<td>0.205*** (0.048)</td>
</tr>
<tr>
<td>Patent dummy</td>
<td>0.392*** (0.139)</td>
<td>0.339** (0.144)</td>
</tr>
<tr>
<td>Technicians/employment ratio</td>
<td>0.262 (0.416)</td>
<td></td>
</tr>
<tr>
<td>New investments in 2001</td>
<td>0.000 (0.000)</td>
<td></td>
</tr>
<tr>
<td>The amount of capital needed to expand production Location:</td>
<td>0.000 (0.000)</td>
<td></td>
</tr>
<tr>
<td>Development zone</td>
<td>0.283 (0.19)</td>
<td>0.217 (0.189)</td>
</tr>
<tr>
<td>Countryside</td>
<td>-0.26** (0.119)</td>
<td>-0.315*** (0.11)</td>
</tr>
<tr>
<td>Other controls:</td>
<td>0.197 (0.20)</td>
<td>-0.308** (0.126)</td>
</tr>
<tr>
<td>Regional dummies</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Manufacturing dummy</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Period dummy (since 1991)</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Observations</td>
<td>551</td>
<td>493</td>
</tr>
</tbody>
</table>

Note: Standard errors are in brackets. *: 0.10, **: 0.5 and ***: 0.01.
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