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Abstract

China has become the world’s largest FDI recipient and exporting country, however, Chinese consistent policy to encourage multinational exports is suppressing and replacing the exports of local private enterprises restricted by domestic financing, therefore, these two related research questions appearance in regular sequence: (1) Is there necessary link between Financing constraints and export of enterprise? (2) What is the impact mechanism of export-oriented multinational companies on local private enterprises export? Using a rich of panel data and Tobit model to carry out the theoretical analysis and empirical testing for the intrinsic relationship among financing channel, FDI and exports of private enterprises, The study found that, labor-intensive industries have a stronger correlation between receiving good bank loans and better export performance with respect to the capital-intensive industry, the export of export-oriented multinational companies with favorable external financing channel is more robust; However, the horizontal or vertical export spillover effects of foreign-invested enterprises are not obvious. In order to foster the export of local private enterprises, eliminating the discrimination in the financing of private enterprises may be a more effective policy tool compared to rely on the export spillover effects of multinational companies, without a doubt that changing Chinese financing policy is the best choice.

Key words: FDI; Financing channel; Export of private enterprises; Export spillover effect

INTRODUCTION

Since the reform and opening up, China has become the world’s largest foreign investment recipient and exporting country originating from the preferential policies attracting foreign investment implemented by China; it won extensive acclaim for a time. The initial stages for reform and opening-up of the late 1970s, foreign investment only allowed in designated special economic zones of china with the form of joint venture, cooperation implementation, At this time, FDI is seen as a tool for the government to implement export-oriented and import substitution strategy (Alfaro, Chanda, Kalemli-Ozcan, & Sayek, 2004). Because of the implementation of “the law of foreign-capital enterprises”, it’s for the first time allow foreign-owned form enter into China, but also investment areas expand from the SEZ to the whole coastal strip, this implementation of open policy aimed at encouraging the development of labor-intensive industries, with the advantage of foreign-invested enterprises to develop processing trade. The export-oriented FDI policy has been a huge success, China is also described as “the world’s factory” for a time by the outside world, and 1992 economic system reform made further liberalization of foreign-invested enterprises, Chinese government provides better sales chance of domestic market for foreign investors, multinational operating companies in China are soaring (Aw, Chung, & Robert, 1999). Implementation purpose of the more open policy is that taking FDI as an international knowledge transfer channel, encouraging the admission of high-technology Company with foreign funding to reduce the
demand for technology imports. However, some scholars are not optimistic for the consistent policy of encouraging export-oriented foreign direct investment implemented in China for a long time, they are questioning that whether the foreign-invested enterprises restrain and replace the normal export of domestic private enterprises or not, it is extending a separate issue, if there is no necessary link among the relaxed external financing channel of foreign-invested enterprises, financing constraint of domestic private enterprises and private enterprises’ exports.

From the view of multinational financing structure, there are four typical sources: government budget funds (for joint ventures), domestic bank loans, self-financing (including direct financing of capital market and surplus carry-over), foreign financing. A typical foreign investment enterprise often comprehensively utilizes all of the above financing channels to obtain the necessary funds, currently the funds received from the channels of government budget funds, domestic bank loans, self-financing, and financing in foreign markets are respectively accounted for 8%, 20%, 17% and 55% of the total financing, which indicates that multinational companies operating in China have become the monopolized users of domestic financial resources (Huang, 2004).

Compared with abundant financial resources and convenient financing channels of foreign-invested enterprises, domestic private enterprises are difficult to get loans from the banking system, Chinese bank industry including the five state-owned commercial banks always has discrimination in lending to private enterprises; “difficult financing” has always been a long-standing problem for private enterprise. Because of the financial suppression, domestic private enterprises are difficult to carry out technological transformation, updated equipment and industrial upgrading; and it is also difficult to reach long-term export contract arrangements with foreign markets. This kind of domestic financing rule repressed private enterprises’ development, but providing conditions for the financing expansion of multinational companies to enter into China. According to the view, this deviation of financing policy is unique to China that paying attention to state-owned enterprises and large multinational financing, but ignoring the majority of small and medium private enterprises, resulting in a large influx of export-oriented FDI. Therefore, a large number of FDI enter into China is not necessarily to be a symbol of powerful domestic economy, two related research questions sequentially to be thrown out: (1) if there is necessary link between financing and export or not? (2) What is the influencing mechanism of FDI on local private enterprises’ export behavior? This paper attempts to explore the scientific proposition.

1. THEORETICAL BASES AND LITERATURE RESEARCH

1.1 Research of Financing Channels and Export Behavior

Those writings about international trade theory seem to have examined the relationship between financing and export performance from different perspectives. Developed financial system is a source of comparative advantage, which further determines the pattern of international trade (the flow direction). By introducing the financial sector, Kletzer and Bardhan (1987) extend the Heckshcer-Ohlin Model, constructed a theoretical framework to predict that the countries with well-functioning of financial system have a comparative advantage on the industry of heavily dependent on the financing channels, so it is more inclined to export the products of this industry; Baldwin (1989) developed a model that the finance in this model has been used as a variable tool for spreading risk, research shows corporate in countries with developed finance industry enjoy better diversification opportunities, Therefore, there is a comparative advantage in exporting risk products; recently, an theoretical perspective of international trade of Chaney (2005) shows that export enterprises with constrained financing have no better export performance.

Literature studies have shown that there are a few channels of mechanism for finance to promote economic growth, first, the financial institution is considered to be the most efficient in the aspect of choosing to support what type of enterprises engaged in innovation activities, the concept of financial can improve technological innovative speed is traced back Schumpeter at the earliest, as well as the ones of De la Fuente and Martin (1996) and Morales (2003) later explore the idea; second, a well-functioning financial system has a positive impact on the accumulation of human capital, for example, Jacoby (1994) describes the dynamic process that through getting financing to facilitate technological upgrading; third, financial institutions by monitoring agents to ensure the efficient operation of corporate governance mechanisms to stimulate economic growth (Stiglitz & Weiss, 1983; Myers & Majluf, 1984), which will guide the agents’ behavior in order to maximize the companies’ value, rather than at the expense of sacrificing the interests of shareholders to engage in rent-seeking activities; and finally, a well-functioning financial system will support the agents to carry out a variety of projects to improve the growth expectation, including increasing high-risk and high-return projects, the idea was carried out theoretical discussion by King and Levine (1993), Acemoglu and Zilibotti (1997) from different perspectives, this proposition believes that those companies received good financing with more efficient, rapid growth and high-tech investments have a higher export propensity (Bernard, Eaton, Jensen, & Kortum, 2003; Clerides, Lach, & Tybout, 1998; Aw, Chung, & Robert, 1999), it is reasonable to assume that financing can improve the companies’ earnings growth and export propensity.


1.2 FDI and Research on Spillover Effect

About mechanism of FDI for spillover effect of domestic industry can be explained in many literatures, the entry of multinationals can affect the output, employment and production efficiency of domestic enterprises by improving competition, technological diffusion, access to export markets, staff training and other channels, especially FDI can stimulate domestic export by providing international market information, international marketing strategy, advanced management experience and improving local enterprises competition, (Aitken, Hanson, & Harrison, 1997). The early literatures are focused on the spillover effect research of FDI in the industry, but Rodriguez-Clare (1996) first theoretically analyzed the inter-industry linkage effects generated by transnational corporations; according another relevant literature, the model Markusen and Venables (1999) provided shows that the entry of multinational companies has two opposite results for domestic economy: Through competitive effects, the entry of FDI has crowd out producers of domestic final product, but by the correlation effects, that also creating favorable conditions for domestic intermediate goods producers, such as increased demand for intermediate products. However it’s worth noting that Rodriguez-Clare, Markusen and Venables had not explored the intrinsic relationship between exports and FDI.

To sum up the above arguments, the literature studies found that there are abundant literature studies on the relationship between economic growth and the financing, but there is little about the microscopic mechanism of interaction among the relevant financing channels, FDI and exports. The main contribution of this paper is conducting empirical test by constructing model, simulating relationship among financing, FDI and exports of private enterprises, and with the micro data of Chinese multinational enterprises and private enterprises, in addition, by microscopic study of enterprises’ export also reveals various channels that financial promotes economic growth to some extent.

2. RESEARCH METHODS AND MODEL CONSTRUCTING

2.1 Data Sources

The research is take private enterprises as samples, using the micro panel data, by building mutual relations among model, financing channel of empirical test, FDI and private enterprises outlet. Data from statistics annual report of Chinese industrial enterprises compiled by Chinese statistics Bureau (2000-2012), it almost covering all of private corporate data of over five million Yuan of year sales, The statistics report includes abundant content, including enterprises micro data of corporate ownership structure, industry, geographical location, date of establishment, employment situation, output, value added, product innovation, financing channel, export, staff training expenses and others.

2.2 Model Construction

In order to verify the relevance of financing channel, FDI and private enterprises’ outlet, we constructed a Tobit model, introducing export intensity as the dependent variable, and the export intensity is defined as the share of exports in total sales, the company i at time t may have positive exports sales (export intensity is greater than 0), exports sales may also have a negative (export intensity is less than 0).

Tobit model as show below:

\[
\text{Export}_{ikt} = \max(0, X_{ikt} + \gamma_2 \text{FDI}_{ikt} + \gamma_3 \text{Bank}_{ikt} + \gamma_4 (\text{FDI}_{ikt} \times \text{Bank}_{ikt}) + \gamma_5 \text{D}_{ikt} + \epsilon_{ikt}), \epsilon \sim N(0, \sigma^2)
\]  

The explained variable Export is as export intensity in t period i company of j industry, The explained variable Bank refers to bank loan portion of the financing structure at time t of multinational company i in j industry, FDI represents foreign invested enterprises have intensity of j industry in t time period, we use annual FDI flow to represent; X is on behalf of characteristic variables of multinational companies in “new product innovation, operating period, total factor productivity, labor training expenses, company size, self-financing ratio” and others, D represents virtual variables of multinational “industry type, entry time and investment area “and others, \(\epsilon\) is a random error term.

In the equation, the regression coefficients of variables of horizontal FDI, company size, growth of total factor productivity, labor training expenses, bank loans and others are endogenous, at present, multinationals are more likely to enter those industries of domestic enterprises have a higher tendency to export, Meanwhile, export enterprises may have some observable characteristics that correlated with their ability to raise funds. Based on these considerations, we use instrumental variables in the Tobit model, taking lag item of endogenous explanatory variables as a tool variable, we also use three traditional exogenous tools, the first dummy variable is the political relations of business, This variable may be a tool related to financing availability, there are some private companies have a strong government relations background, this government affiliation can help businesses to get credit guarantees. The last two ones are FDI and traditional variable designed by financing channels, they are the output share of state-owned enterprises (SOEs), the proportion of loss-making SOEs, assuming that banks prefer more state-owned enterprises, especially the state-owned enterprises with poor management are easier access to financial policy support, so these two variables will affect the level of difficulty of private enterprises to obtain bank financing.

3. DATA DESCRIPTION AND PRELIMINARY ANALYSIS
In order to gather intensity of foreign-invested enterprises of industry j at period t, we define HFDI_{jt} as horizontal FDI intensity, namely the proportion of a multinational industrial output compared to total output, along with other indicators of FDI, we selected 144 industry sectors from 31 provinces of China to conduct the examination, the results show that FDI variable used in this study shows a good sample characteristics.

Accordingly, we launched two indicators associated with the multinational: forward linkage and backward linkage, FDI backward linkage of local private enterprises in sector j at t time is that the department provides supplies intermediate inputs to multinational companies, namely:

\[
\text{DFDI}_{jt} = \sum_{k \neq j} \beta_{kj} \text{HFDI}_{kt}
\]  

(2)

\( \beta_{kj} \) is the proportion of local private enterprises k sector output provides to multinational companies j sector, it is measuring the intensity of forward linkages of FDI, it is measuring the intensity of forward linkages and backward linkages between local private enterprises and multinational corporations.

Three FDI indexes of HFDI, DFDI and UFDI are further distinguished by the market orientation of multinationals (domestic market and export market), and market orientation can be judged by domestic market sales and export sales released by transnational corporations.

Table 1 shows the average output share and export intensity in 2009 and 2012 of private enterprises and foreign-invested enterprises from Zhejiang and Jiangsu provinces, it is clear that compared to local private enterprises, foreign-invested enterprises (defined as foreign capital accounted for at least 25 % equity share) have a larger size presence in labor-intensive industries and capital-intensive industries. But Table 1 also clearly shows that foreign-invested enterprises also have great interests in serving domestic market. But it is also worth noting that the growth rate of output share of private enterprises is more than doubled from the period 2009 to 2012, but the export intensity has not changed significantly.

Based on 5847 econometric analysis of private enterprises, during the study of samples, it can be found that from the financing channel point of view, these private companies do not receive any funding from the state budget funds or foreign channels; their main source of funding is bank loans and self-financing. Table 2 providing some statistical summary of each variable, either labor-intensive sectors or capital-intensive sectors, about one-third of enterprises have export experience, we also note that the average export intensity is high.

As expected, the companies of capital-intensive industry will invest more resources in terms of staff training for skills upgrading, while the companies of labor-intensive industry employ more than 9% of the employee in average compared to companies of capital-intensive industries. The average growth rate of total factor productivity of private enterprises in our data set has more than 10%, which is in keeping with the phenomenon that private enterprise is the main driving force of Chinese economic growth, bank loans of total assets on average more than 40%, indicating that all of the private enterprises with a certain power have bank loans, while the proportion of self-financing is also high.
4. RESULTS AND DISCUSSIONS

4.1 Data Simulation

Using instrumental variable model to respectively estimate all samples, labor-intensive sample, and capital-intensive sample, based on the consideration of two aspects to carry out such processing: First, the preliminary conclusion is that there is a certain degree of relevance between export-oriented FDI and labor-intensive sectors; second, labor-intensive sectors and capital-intensive sectors may face different external financing needs due to technical differences.

Table 3 shows the marginal effect of Tobit model, consistent with existing empirical evidence; firm size and productivity growth have a positive and significant impact for export propensity, for example, according to IV Tobit model on average for all companies, an average growth of enterprises’ size is 10%, and an average growth of export intensity is 3%. Product innovation also has a positive effect on export; this effect is more pronounced in capital-intensive industries, because new product development of capital-intensive industries is more critical for improving competitiveness in international markets. By contrast, employee training is more important to affect the results of the exports in labor-intensive industry, which shows that skills upgrading of traditional industries is more important in international business activities.

Table 3
Bank Financing, Export and FDI Spillover Effect

<table>
<thead>
<tr>
<th>IV Tobit</th>
<th>Dependent Variable</th>
<th>All Sectors</th>
<th>Labor-intensive Sector</th>
<th>Capital-intensive Sectors</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Average</td>
<td>S.d</td>
<td>Average</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Product</td>
<td>0.271(0.107**)</td>
<td>0.475(0.087***)</td>
<td>0.301(0.012***)</td>
<td>0.224(0.023***)</td>
</tr>
<tr>
<td>Innovation/Total Output</td>
<td>0.0221</td>
<td>0.00160</td>
<td>0.0860</td>
<td>0.0312</td>
</tr>
<tr>
<td>Training Expenses/Number</td>
<td>0.0624</td>
<td>0.0516</td>
<td>0.2604</td>
<td>0.0942</td>
</tr>
<tr>
<td>Company Size</td>
<td>4.8422</td>
<td>4.5417</td>
<td>0.9328</td>
<td>4.7405</td>
</tr>
<tr>
<td>TFP Growth</td>
<td>0.1041</td>
<td>0.1032</td>
<td>0.7794</td>
<td>0.1098</td>
</tr>
<tr>
<td>Firm Age</td>
<td>10.154</td>
<td>9.2542</td>
<td>7.3365</td>
<td>10.2058</td>
</tr>
<tr>
<td>Bank Loans/Total Assets</td>
<td>0.5415</td>
<td>0.5250</td>
<td>0.2826</td>
<td>0.5805</td>
</tr>
<tr>
<td>Self-financing/Total Assets</td>
<td>0.3710</td>
<td>0.3268</td>
<td>0.3498</td>
<td>0.3014</td>
</tr>
<tr>
<td>Export-oriented Level FDI</td>
<td>0.1154</td>
<td>0.1283</td>
<td>0.1752</td>
<td>0.0826</td>
</tr>
<tr>
<td>Market-seeking Level FDI</td>
<td>0.1349</td>
<td>0.1416</td>
<td>0.1298</td>
<td>0.1402</td>
</tr>
<tr>
<td>Upstream Export-oriented FDI</td>
<td>0.0006</td>
<td>0.0080</td>
<td>0.0018</td>
<td>0.0007</td>
</tr>
<tr>
<td>Upstream Market-seeking FDI</td>
<td>0.0008</td>
<td>0.0080</td>
<td>0.0012</td>
<td>0.0008</td>
</tr>
<tr>
<td>Downstream Export-oriented FDI</td>
<td>0.0007</td>
<td>0.0009</td>
<td>0.0057</td>
<td>0.0004</td>
</tr>
<tr>
<td>Downstream Market-seeking FDI</td>
<td>0.0011</td>
<td>0.0017</td>
<td>0.0121</td>
<td>0.0039</td>
</tr>
</tbody>
</table>

Observation Value 5847 3623 2224

Consistency: X2(10)(p-value) 72.92(0.000) 99.24(0.000) 170.86(0.000)

Note. The progressive standard error is in the brackets; ***is the result that is significant at 1% level, ** is the result that is significant at 5% level, * is the result that is significant at 10% level; in particular including time, region, and industry dummy variables. HE FDI is for export-oriented level FDI, HM FDI is for the market-seeking level FDI, UE FDI is upstream export-oriented FDI, UM FDI is upstream market-seeking FDI, DE FDI is for the downstream export-oriented FDI, DM FDI is for the downstream market seeking FDI.
4.2 Financing Channel, FDI and Private Enterprises’ Export

Analog display shows that formal financing channels (namely bank loans) increased the export intensity of Chinese private enterprises, this positive effect is more obvious in labor-intensive industries, on the contrary, the effect of self-financing is minimal for export trade of capital-intensive industries, so it seems the export of capital-intensive industry is more highly dependent on external financing, not just only through internal channels of financing.

We found that exports’ spillover from FDI is showing typical heterogeneity characteristic First, export-oriented level FDI has a strong export enhancement effect, the enhancement effect is more significant in capital-intensive industry, it is realized through the export-oriented multinational companies pass the international market information to local similar private enterprises. Second, the positive externality of export spillover of export-oriented FDI is more significant in labor-intensive private enterprises which obtained more bank loans; therefore, the impact of good financing channels on exports is not only beyond suspicion, but also help domestic private enterprises to make better use of the externality generated from multinational companies in this industry. Third, market-seeking level FDI has a negative impact on the export of domestic private enterprises, this effect of influence is more significant in company of labor-intensive industries which obtained more bank loans; an explanation for this effect is that the domestic private enterprises of labor intensive industries need more financing to expand investment in order to compete more market share with the market-seeking multinationals. Fourth, the export-oriented FDI of downstream industry has no significant impact on domestic private enterprises’ export, which seems to indicate that multinational companies in China haven’t a lot of localized procurement, or they do not provide positive export opportunities for the latter in interactive process with domestic suppliers, Fifth, the market-seeking FDI of downstream industry leads to the drop of export intensity of domestic private enterprises, indicating that, local private enterprises that provide intermediate inputs for market-seeking multinationals are more inclined to domestic-oriented in the face of unchanging conditions, Finally, we found that no matter what kind of strategic direction adopted by multinational, there is no obvious correlation between FDI of upstream industry and domestic private enterprises’ export.

4.3 Government-business Relations and Private Enterprises’ Export

Many Chinese private enterprises have a certain political and business relations with local governments, and even some large private enterprises are closely linked with the central government, private enterprise which has an association with the government is called “red hat” enterprise (Huang, 2004), this private enterprise is under the umbrella of the government can obtain government credit guarantee and government protection, and as a reward, private enterprises are handed over certain management fees to the local government.

We suspect that private enterprise have a political background with the “soft budget constraint” because if they default on their loans are more likely to get the appropriate government guarantees. An interesting phenomenon in this regard is that as opposed to private enterprises with the “red hat” nature, general private enterprises without any political background are more capable of effective use of external financing.

In order to explore this question, we divided effective sample firms into general private enterprises and the enterprises with political background, simulating the export intensity of each sub-sample (simulation results are shown in Table 4). The study results show that general private enterprises are more efficient in the use of bank loans, it is interesting that bank loans have no positive impact on the exports of private enterprise with “red hat” nature of capital-intensive industry, which is derived from the reliable source, for example, a lot of resource in Chinese financial system went to inefficient state-owned enterprises (Allen et al, 2005; Boyreau-Debray and Wei, 2005), our findings on this conclusion once again provided preliminary evidence, there will still exist a fact that banking resource misallocation caused by political bias even in private enterprises.

CONCLUSION AND POLICY

This study adopts panel data set includes 5847 private enterprises, systematic analysis was carried out on the relationship among financing channels, FDI and the export of domestic private enterprises, and endogenous nature and heterogeneity of financing channels and FDI were controlled. Study results found that gaining good bank loans from financing structure was significantly correlated with better export performance, especially government non-associated enterprises in the labor-intensive industries; export-oriented level FDI has a strong export promotion effect on private enterprises, this positive externality has a more significant effect for those private enterprises who can get a better bank loan financing. In contrast, the domestic market-seeking FDI has a negative impact on the export of local private enterprises, and there is quite rare situation of building vertical industry chain to increase spillover effect of export through the cooperation with multinational corporations. These study findings suggest that, in order to foster export of local private enterprises, eliminating financial discrimination against private enterprise is a more efficient way, compared with relatively dependent on exports spillover effect produced by FDI, the important enlightenment of this study is that in order to expand the export of private enterprises, the state-owned banking system should be systematic reformed.
Until the late 1990s, private enterprises have the right to import, not through state trading companies to export, even so, private enterprise is still subject to financial repression, and the financing difficulty of private enterprise has become a key problem to restrict the sustainable development of enterprises, especially those private enterprises that are not associated with the government. Our study has important policy gist, more financing generally means more exports, and more foreign direct investment (particularly market-oriented FDI) means fewer export opportunities, in order to foster export of domestic private companies, the reform of financial system is a more effective policy choice.

REFERENCES


