This research proposes a new theory called bilateral rent-seeking to explain the dramatic growth of foreign direct investment (FDI) inflow into China over the past several decades. We construct a Nash bargaining model to illustrate the relevance of how the reciprocal relationship between the local state and foreign investors leads to the greater incentives for the latter to invest in the local market, thus resulting into the huge FDI inflows into the domestic market in China in the past several decades. The empirically evidence presented in the end is broadly consistent with the theories proposed in this paper (JEL D21, D72, L52).

I. INTRODUCTION

A. Some Institutional Background on Inward FDI into China

The dramatic economic growth of China’s economy since the opening-up policies has been largely attributed to the contribution made by foreign direct investment (FDI) from other countries (Liu, Burridge, and Sinclair 2002; Shan 2002; Sun and Parikh 2001; Yao 2006; Yao and Wei 2007; Zhang 2001a, 2001b; Zhang and Song 2001). However, as Rodrik (1999), Javorcik (2004), Lee and Chang (2009), and Shen, Lee, and Lee (2010) raised the issue of an inconclusive impact of FDI on economic growth, it is therefore still debatable in the literature about through which channel FDI could promote economic growth in the local market. In contrast to the previous literature, this paper provides a new angle in which FDI could promote economic growth of the local market in China. We argue that there exists a channel called “bilateral rent-seeking” during the process of FDI inflow, which allows foreign firms’ conventional rent-seeking behaviors required to enter into the market to induce the local government to enact preferential policies toward them such that they enhance economic growth as a result of the formation of a reciprocally beneficial relationship between the two sides.

Although there is a vast amount of literature touching upon the fact that the preferential policies enacted by the local government in China are one of the primary reasons causing the dramatic increase in FDI inflows, nearly all of these works ascribe the causes of these preferential FDI policies to China’s political economy structure such as central-local state relations, local government officials’ promotion tournament, and so on (Li and Zhou 2005; Xu 2011; Zhang and Zhou 2008). In other words, no study has yet to realize the fact that the preferential policies or subsidies provided by the local government toward foreign investors are also endogenous to the amount of

**ABBREVIATIONS**

CSRC: China Securities Regulatory Commission
FDI: Foreign Direct Investment
GDP: Gross Domestic Product
HKEx: Hong Kong Stock Exchange
IV: Instrumental Variable
MS: Market Share
QFII: Qualified Foreign Institutional Investor
ROA: Return on Assets
SOE: State-Owned Enterprises
TABLE 1
The Bilateral Rent-Seeking Activities during the Process of FDI Inflow

<table>
<thead>
<tr>
<th>Agent</th>
<th>Rent Seeker</th>
<th>Rent Setter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type 1</td>
<td>Foreign firm</td>
<td>Local state</td>
</tr>
<tr>
<td>Type 2</td>
<td>Local state</td>
<td>Foreign firm</td>
</tr>
</tbody>
</table>

Source: Keng and Chen (2015).

rent-seeking fees paid by the foreign investors to the local government to allow them to operate in the local market.

This paper notes that what makes the process of FDI inflow into China distinct from FDI into other emerging economies are that foreign investors operating in the local market play both the roles of rent-seekers, in which they have to pay certain license fees to the local government to allow them to operate, and rent-setters such that they induce the local government to become rent-seekers, thus resulting in its heavy subsidies to foreign investors. Table 1 presents the bilateral rent-seeking activities’ relationship between the local government and the foreign investors.

From Table 1 we see that type 1 rent-seeking activity is the standard situation presented by many classical studies including Buchanan, Tollison, and Tullock (1980), Krueger (1974), and Acemoglu and Verdier (2000). It could be argued that the mainstream literature on rent-seeking fails to take into account the fact that the one-way rent-seeking relationship between firms and the local state could be reversed under certain circumstances, which is shown by the type 2 situation in the above table. This especially holds true when there exists a peer-level competition among the local states that forces local governments to transfer these rents they receive from foreign investors back into the productive activities in the forms of subsidy provisions in order to stand out in the local gross domestic product (GDP) competition and government official promotion tournament.

What also sets this paper apart from other works is that we elucidate the fact that there are two pro-growth implications of such a bilateral rent-seeking relationship. First, the excessive level of rent-seeking activities could only be disciplined through the direction from the foreign firm and local state. In most developing countries especially with reference to Africa, when the local governments receive the rents paid by the foreign investors, they are not willing to pay these rents back to those investors in the forms of subsidies; rather, instead of reinvesting in productive sectors, the local states in Africa tend to reallocate these rents into their own pockets, which is very detrimental to economic growth at the local level (Gray and Khan 2010; Khan 1996a). The situation is distinctly different in China. Due to the local intergovernmental competition, the rents received by the states from the foreign investors are normally reinvested in the productive sectors in the forms of subsidies, which effectively curb the state’s unilateral encroachment of foreign investors’ rents. In other words, the bilateral rent-seeking relationship to a larger degree equalizes the respective bargaining power of the local state and the foreign investors, thus leading to dramatic economic growth in the local market. Indeed, this view is corroborated by our model’s prediction that only when the bargaining power between the local state and the foreign investors become more symmetrical do both rent-seeking payment and subsidies from the state lead to higher output from foreign firms.

Second, driven by the incentives of possible promotion within government officials’ hierarchy, local government officials tend to heavily subsidize foreign investors as this could be very helpful in terms of attracting inward FDI, which in turn accelerates GDP growth in their own region. As a result, they can also extract an increasing level of rents from newly arrived foreign investors. This channel is normally ignored in the conventional rent-seeking literature, because in this case the government converts its role from rent-setter to rent-seeker and the foreign firms instead become rent-setters. The simple logic derived from this circumstance is that bilateral rent-seeking activities between the local government and foreign firms can actually promote FDI inflows and economic growth.

B. The Comparative Analysis of Bilateral Rent-seeking FDI Theories and Other FDI Theories

There are several different explanations in terms of the determinants of inward FDI into China ever since the opening-up policies in 1978. First, one argument comes up with the point that

1. Egger and Winner (2005) conduct the first empirical study that corruption could be conducive to FDI inflow. Khan (1996b) even held the view that as long as the rents arising from corruption are managed well and transferred to the productive sectors, then corruption or rent-seeking activities do have pro-efficient implications for economic growth.
the market demand and market size of China’s economy have largely attracted its FDI inflow from the rest of the world. Kravis and Lipsey (1982) and Blomstrom and Lipsey (1991) documented the fact that there exists a strong size threshold effect for firms’ decision to invest abroad. The weakness of this line of argument is that despite the fact that China has a very big market size that provides the best opportunities for foreign firms to invest, why do countries in Latin America or Africa with at least intermediate levels of market size not able to attract as much inflow FDI as China did? If we only look at the determinants of market demand and market size as the factors in attracting FDI into China, then there probably lacks a certain degree of comprehensiveness.

The second point on the determinants of FDI into China is that agglomeration effects in a particular province such as the concentration or co-location of economic activities give rise to economies of scale and positive externalities. Although such an argument might partially explain why FDI sometimes greatly flows into particular provinces such as China’s coastal regions, it fails to recognize the fact that the agglomeration effects are endogenous to the local state’s continuous efforts to create a sort of pro-investment climate, including the creation of some special economic zones in which such agglomeration effects can naturally emerge. This in essence can be treated as the state’s subsidies to the market in order to create an investment-friendly environment. The bilateral rent-seeking theories take this point into consideration and argue that the role of state’s subsidies is very crucial for attracting FDI from foreign countries.

The third explanation lies in the angle from the high quality and low cost of labor in China’s economy. It is widely argued that its low cost of labor has been an important determinant of FDI into China (Cheng and Kwan 2000; Coughlin and Segev 2000). To some degree, it is partially true that the low labor cost comparative advantage is one of the most important factors causing such dramatic FDI inflows. However, one thing that this approach fails to view is that such a low wage comparative advantage is partially caused by the local state’s continuous effort to depress the power of trade unions and to enact industrial policies such as tax reductions that are largely pro-business. Without the role of the state intervening in China’s labor market, the wage level would be increasing much faster than what has occurred in the real world.

The fourth explanation for the determinants of FDI into China is the trade openness argument. Banga (2003) and Zhang (2001a, 2001b) showed that there exists a positive relationship between trade openness and FDI inflow. One thing that is required to revisit this argument is that trade openness policies in China are not naturally evolving, but largely complemented by the state’s pro-developmental national strategies. Without such national catching-up strategies along with a strong commitment to subsidizing foreign firms, the trade-openness policies could not possibly be implemented.

The final factor in the determinant of China’s inward FDI is the degree of economic uncertainty or political risks in the FDI host country. For instance, Bernanke (1983) and Chen and Funke (2003) argued that if the host country is politically unstable, then it is unlikely this country could attract a huge amount of FDI. The case of China is not an exception. The high level of political stability in China has led to a situation in which foreign firms can easily settle down and make huge profits.

It is obvious that the aforementioned five lines of argument all ignore the institutions of the local state in facilitating inward FDI by providing the huge amount of subsidies to foreign investors. Without understanding the initiatives taken by the state to use the subsidy policies to attract foreign investors, one might not easily understand why there is such a huge amount of FDI influx into China’s large economy. However, one thing worth mentioning is that our paper does not intend to argue that bilateral rent-seeking is the dominant and sole factor for explaining the huge amount of FDI into China in the past decades since the opening-up policies. Rather, we aim to present this as an additional channel that complements the other aforementioned factors that in turn jointly induce the rise in FDI into China.

Our paper provides the first theoretical attempt to demystify the intricacy of the mutual interaction between the local state and foreign investors and offers the view that due to the intense intergovernmental competition for regional GDP growth; the local states in China have incentives to become rent-seekers. As a result, they are strongly willing to subsidize foreign investors and provide all the necessary pro-investment policies to keep these foreign investors in their local regions. It is apparent that such an inherent link between the rent-seeking behaviors of the local state and the FDI influx
into China has not been thoroughly explored in the existing literature.

The rest of the paper is organized as follows. Section II presents the literature review. Sections III and IV offer our theoretical model and an extension model. Section V shows some practical evidence. Section VI lists policy implications. Section VII is the concluding remark.

II. LITERATURE REVIEW

A. Market-Driven FDI

This paper stands at the intersection of two streams in the literature. The first one is the literature focusing on the role of market openness and the deregulation of foreign capital at attracting FDI inflows (Huang 2003; Lin, Cai, and Li 2003; Shen, Lee, and Lee 2010; Yang, Tao, and Liu 2003; Zhang 2008). For instance, Yang, Tao, and Liu (2003) argued that the increasing degree of market openness in China’s economy as well as its participation in the global production network is the main drivers for its FDI inflows. These views are similarly expressed by Branstetter and Lardy (2006) who contended that it is China’s embrace of globalization that has led to the dramatic FDI inflows and economic growth. Lin and Yang (1999) explained FDI inflow from the perspective of the state’s adjustment to the resource allocation mechanism guided by the market. They argued that the state has encouraged the growth of labor-intensive industries whose comparative advantage of their factor endowment structure is consistent with the one in the economy, therefore resulting in the situation under which FDI could utilize such a cheap-labor cost advantage to reap further benefits. The problem with this line of the literature is that it over-emphasizes the role of market openness in shaping the dynamics of a host country’s FDI and seems to ignore the fact that there are many countries in the world having a high degree of market opening, but which are not able to attract sufficient amount of FDI inflows like many economies in Africa. Moreover, what sets this paper distinct from this line of research is that although we incorporate profit-maximization behaviors into our model, which imply purely market-driven FDI incentives, we also model the interactional effect between multinational firms and the local government, as the latter cannot simply be neglected. The roles the local state takes on, including its preferential policies, subsidy policies, and so on, largely affect the effectiveness of FDI flows into China.

B. State-Driven FDI

The other stream of literature that this paper closely links up with is state-driven FDI in China. This literature tends to focus on the idea that it is the local government’s FDI policies in China that play the main role at attracting FDI inflows (Edin 2003; Li and Zhou 2005; Whiting 2001; Zhang and Zhou 2008). According to Zhou (2007) and Zhang and Zhou (2008), FDI preferential policies in China are endogenous to two main political economy structures of China’s governance system: one is the fiscal federalist system and the other is the political tournament system. Fiscal federalism, as first pinpointed by Montinola, Qian, and Weingast (1995), refers to the idea that given the fiscal decentralization structure in the local government, there exists strong interlocal governmental competition in terms of GDP growth in order to obtain more fiscal revenue. As a result, local governments in China are incentivized to enact preferential policies toward foreign investors including subsidy provisions. In our model, we also incorporate such subsidies into part of the payoff function for the local government.

The second bulwark of the state-driven FDI literature is the one concentrating around the discussions of political tournament (Zhang and Zhou 2008). The promotion of government officials in China within the political hierarchy is largely dependent upon how much GDP official could create in the region that they are in charge. Therefore, in order to obtain opportunities for possible promotion, government officials are very willing to enact policies that are in favor of the interests of foreign investors. The direct implication of this is that the government gradually becomes a rent-seeker during the process of FDI versus vertical FDI. Second, most SOEs are not as inefficient as claimed by the mainstream literature, and some large SOEs in China are endowed with high total factor productivity and are not easily crowded out when multinational firms enter the local market (Lo 1999).

2. Huang (2003) demonstrated that since FDI is normally endowed with more advanced technological capabilities and domestic SOEs and private firms are not able to compete with these high-tech foreign multinationals, therefore when these multinationals enter China’s market they do not face intense competition and could easily dominate the local market share. This provides incentives for FDI to massively flow into China. However, there are two flaws to this. First, it does not classify FDI into vertical or horizontal; normally, the horizontal type of FDI has far less impact on local economic growth in China
inflow and provides much higher subsidies than foreign firms are required to pay back in the form of rent to the local government in order to be able to operate in the local market. Our theoretical model’s prediction is consistent with the fact that the bilateral rent-seeking activities arising from FDI could be conducive to economic growth if and only if the subsidies provided by the local state are sufficiently larger than the rents paid by the foreign investor.

The third bulwark of the state-driven FDI literature under the context of China is the “race-to-bottom” theory proposed by several scholars in the literature (Dong, Gong, and Zhao 2012; Keng and Chen 2015; Liu, Xu, and Liu 2004). According to this theory, attracting inward FDI becomes the first priority for local bureaucrats in China due to the time constraint of their duration of power as well as the promotion incentives throughout the hierarchy based on the GDP indicator. Since the incentives for attracting FDI are so strong, they largely motivate the local state to actively subsidize the entry of foreign firms from other countries, given that firms would pay the bribe to the local government bureaucrats in return. As a result, this leads to the formation of the bilateral rent-seeking process between the state and the foreign firms. These subsidies could include the provision of tax breaks, free land, or even the relaxation of environmental and labor market regulations. In our paper, we integrate such a theory through the theoretical model that we propose. Our model incorporates the degree of intergovernmental competition into our analysis and assumes that a higher intensity of intergovernmental competition prevents local bureaucrats from monopolizing the benefits or bribes that they could derive from inward FDI, thus leading to a lower total amount of bribes that she/he could receive. We then demonstrate in our model that a higher degree of intergovernmental competition forces the local state to enter into the bilateral rent-seeking process—namely, giving more subsidies to the foreign firms such that she/he could outperform other bureaucrats in order to have higher monopolistic power in terms of extracting the bribes from the foreign firms.

To sum up, our paper looks to integrate two dichotomous views on what actually drives FDI flows into China. We come up with a Nash bargaining model that captures both market-driven and state-driven incentives of FDI and demonstrate that the massive scale of FDI inflow in China is the product of the interaction between local governments and foreign firms, as embodied by their bilateral rent-seeking activities.

III. A BENCHMARK MODEL

A. Set-up

Suppose that there is one foreign firm entering into the local market in the FDI host country. Its objective function is to maximize profits, while at the same time it has to pay a certain cost to obtain licenses from the local government to operate in the local market. We denote this as the rent-seeking cost. Assume this type of cost is fixed, which could be written as $R_c$. The second component of this foreign firm’s cost structure is its production cost, which could be expressed as the following typical quadratic form: $P_c = \frac{cq^2}{2}$, where $c \geq 1$. Bearing this in mind, the total cost for this foreign firm is therefore the sum of rent-seeking cost and production cost, which could be shown as follows: $C = R_c + P_c = R_c + \frac{cq^2}{2}$.

The other player in our model is the local government in the FDI host country. Its objective function is to maximize the total tax revenue from the foreign firms. In order to attract FDI from foreign countries, the local government tends to enact some subsidiary policies toward foreign investors that operate in the local market. In order to capture such policy dynamics, it is assumed in this paper that the local government would transfer some subsidy, which we denote as $s$, to the foreign investors such that they have higher incentives to invest in the local market. Here, $s \geq 1$. Furthermore, we assume that the inverse demand function faced by this foreign firm could be written as follows: $P = 1 - q$.

The payoff function for this foreign firm can therefore be expressed as follows:

$$U_f = (1 - t) \left[ (1 - q)q - \frac{cq^2}{2} \right] - R_c + s.$$  

Here, $t$ is the unit profit tax rate, and $0 \leq t \leq 1$. Likewise, the payoff function for the local government can be expressed as follows:

$$U_s = (t) \left[ (1 - q)q - \frac{cq^2}{2} \right] - s + R_c.$$  

B. A Closed Economy Model

Suppose under a closed economy setting that we can model the interaction between the
local government and the foreign firm using the cooperative game theory framework. Given Equations (1) and (2) and with a zero value outside option, the Nash bargaining problem of our model, which represents the joint interests of the local government and foreign firm, can be expressed as:

\[
\text{(3)} \quad \text{Max}_q W = \left\{ (1-t) \left[ (1-q)q - \frac{cq^2}{2} \right] - R_c + s \right\}^\alpha \times \left\{ \left( t \left[ (1-q)q - \frac{cq^2}{2} \right] - s + R_c \right) \right\}^{1-\alpha}.
\]

Solving for Equation (3), we obtain the following:

\[
\text{(4)} \quad \alpha \left\{ (1-t) \left[ (1-q)q - \frac{cq^2}{2} \right] - R_c + s \right\}^{\alpha-1} \times (1-2q-cq-t+2tq+ctq)
\]
\[
\times \left\{ (t \left[ (1-q)q - \frac{cq^2}{2} \right] - s + R_c \right\}^{1-\alpha}
\]
\[
+ (1-\alpha) \left\{ \left( t \left[ (1-q)q - \frac{cq^2}{2} \right] - s + R_c \right) \right\}^{-\alpha}
\]
\[
\times (t-2tq-ctq) \left\{ (1-t) \left[ (1-q)q - \frac{cq^2}{2} \right] - R_c + s \right\}^\alpha = 0.
\]

Rearranging (4), we derive the following:

\[
\text{(5)} \quad \alpha \left\{ (t \left[ (1-q)q - \frac{cq^2}{2} \right] - s + R_c \right\} \times (1-2q-cq-t+2tq+ctq) + (1-\alpha)
\]
\[
\times \left\{ (1-t) \left[ (1-q)q - \frac{cq^2}{2} \right] - R_c + s \right\}
\]
\[
\times (t-2tq-ctq) = 0.
\]

Equation (5) implies the maximum Nash product functional trajectory that maximizes the Nash product indicated by (3).

There are two channels we are interested in that can explain the vast amount of FDI flows into host countries like China. First, we want to know how the bilateral rent-seeking activities could occur during the bargaining process between the local government and the foreign firm. In order to achieve this aim, we should detect the mechanism through which the government subsidies vary with a foreign firm’s rent-seeking fixed cost. If they vary positively, then the bilateral rent-seeking activities do occur. Mathematically speaking, we use the implicit function theorem to analyze this mechanism.

Given (5), we employ the implicit function techniques to proceed with the derivations:

\[
\text{(6)} \quad \left\{ -\alpha \frac{\partial S}{\partial R_c} + \alpha t \right\} D + \left[ -(1-\alpha)(1-t) \right.
\]
\[
\left. + (1-\alpha)(1-t) \frac{\partial S}{\partial R_c} \right] F = 0.
\]

Here, \( D = (1-2q-cq-t+2tq+ctq) \), and \( F = (t-2tq-ctq) \). We rewrite (6) and express \( \frac{\partial S}{\partial R_c} \) as follows:

\[
\text{(7)} \quad \frac{\partial S}{\partial R_c} = \frac{F(1-\alpha)(1-t) - \alpha t D}{(1-\alpha)(1-t) - \alpha t D}.
\]

Since \( D < 0 \), and \( F < 0 \), then \( \frac{\partial S}{\partial R_c} > 0 \) if and only if:

\[
\text{(8)} \quad \alpha D > F(1-\alpha)(1-t).
\]

Rearranging (8), we know that:

\[
\text{(9)} \quad \frac{\alpha D}{F} > (1-\alpha)(1-t) > 0.
\]

Using the sandwich theorem, we know that it must be the case that:

\[
\text{(10)} \quad \frac{\alpha D}{F} > 0,
\]

and thus (10) must hold as \( D < 0 \), and \( F < 0 \). Hence, it could be verified that \( \frac{\partial S}{\partial R_c} > 0 \).

We then have the following proposition in this paper.

**PROPOSITION 1. (Bilateral Rent-Seeking)**

Under the Nash bargaining problem implied by (1), a higher amount of rent-seeking activities’ cost incurred by the foreign firm leads to a higher amount of subsidies provided by the local government, thus forming the relationship of bilateral rent-seeking between the local government and the foreign firm—namely, \( \frac{\partial S}{\partial R_c} > 0 \).

The second channel of comparative statics we are interested in is how the foreign firm’s optimal output varies with the subsidies and the rent-seeking fees. This channel allows us to understand what actually explains the rationale behind the massive scale of FDI inflow in countries such as China under a particular structure of
incentives. Bearing this mind, we first apply the implicit functional theorem on the subsidies from Equation (5) to obtain the following:

\[ \frac{dq}{ds} = \frac{2[(cq + 2qt - t)(\alpha - 1)] - (cq + 2qt - q + t + 1)\alpha}{(cq + 2qt - q - t + 1)} \times (cq + 2q - 1)\alpha - 2(cq + 2qt - t) \times (cq + 2q - 1)(\alpha - 1)
\]

This implies that:

\[ \frac{dq}{ds} = -\frac{4(3(2\alpha - 1)q - 2\alpha + 1)}{27(3\alpha - 2)q^2 - 6(4R_c - 3)\alpha - 18(3\alpha - 2)q + 12(2\alpha - 1)s + 12R_c - 16} \times (ct + 2t)(\alpha - 1) + ((cq^2 + 2(q - 1)qk - 2R_c + 2s) (ct = c + 2t - 2)\alpha \]

Since (11) looks very tedious, we set \( t = \frac{1}{2} \) and \( c = 1 \) to simplify the expression for (11):

\[ \frac{dq}{ds} = -\frac{4(3(2\alpha - 1)q - 2\alpha + 1)}{27(3\alpha - 2)q^2 - 6(4R_c - 3)\alpha - 18(3\alpha - 2)q + 12(2\alpha - 1)s + 12R_c - 16} \times (ct + 2t)(\alpha - 1) + ((cq^2 + 2(q - 1)qk - 2R_c + 2s) (ct = c + 2t - 2)\alpha \]

We know that (12) is bigger than 0 if and only if:

\[ -\frac{4(3(2\alpha - 1)q - 2\alpha + 1)}{27(3\alpha - 2)q^2 - 6(4R_c - 3)\alpha - 18(3\alpha - 2)q + 12(2\alpha - 1)s + 12R_c - 16} > 0. \]

This implies that:

\[ \frac{4(3(2\alpha - 1)q - 2\alpha + 1)}{27(3\alpha - 2)q^2 - 6(4R_c - 3)\alpha - 18(3\alpha - 2)q + 12(2\alpha - 1)s + 12R_c - 16} < 0 < 1, \]

which means that:

\[ 4(3(2\alpha - 1)q - 2\alpha + 1) < 27(3\alpha - 2)q^2 - 6(4R_c - 3)\alpha - 18(3\alpha - 2)q + 12(2\alpha - 1)s + 12R_c - 16. \]

We rearrange (16) and express the following condition for the bargaining power of the foreign firm:

\[ \alpha < \frac{48q - 54q^2 - 20 + 12(R_c - s)}{78q - 81q^2 - 26 + 24(R_c - s)}. \]

From (15) we see that if \( R_c < s \), then the above inequality means that as long as the state’s subsidy is larger than the rent-seeking fees, given the foreign firm’s bargaining power is below a certain threshold, then a higher level of state subsidies leads to higher output of this foreign firm. Hence, we have Proposition 2 in this paper.

PROPOSITION 2. Given the level of state subsidy is larger than the rent-seeking fees, then a larger level of state subsidies leads to a higher output by the foreign firm if and only if the foreign firm’s bargaining power in the host country is below a certain threshold—namely:

Given \( R_c < s \), \( \frac{dq}{ds} > 0 \) if and only if \( \alpha < \frac{48q - 54q^2 - 20 + 12(R_c - s)}{78q - 81q^2 - 26 + 24(R_c - s)} \).

The implication behind Proposition 2 is that if there is the weak local intergovernmental competition in terms of tax collection and enacting friendly FDI policies to promote the growth of foreign firm in the local market including subsidy provisions, then the foreign firm has to undertake many rent-seeking activities to bribe the local government officials to get access to the licenses needed to operate in the host country. The premise of this is that the foreign firm must have very large bargaining power and be able to pay enough in rent-seeking fees to bribe the local government officials to get access to the licenses to operate in the local market. In contrast, if the foreign firm enters the host country where the local intergovernmental competition is quite intense (like in China’s case) in terms of tax collection and enacting friendly FDI policies to promote the growth of the foreign firm in the local market including subsidy provisions, then the foreign firm does not need to undertake many rent-seeking activities to bribe local government officials, because it would receive a sufficient amount of subsidies from the local government to allow it to produce a high level of output in the market. Hence, it does not require the foreign firm to possess very high bargaining power.

We then look at how the firm’s optimal output varies with its rent-seeking fees. We again apply the implicit function theorem on rent-seeking fees \( R_c \) from (5) to obtain the following:

\[ \frac{dq}{dR_c} = \frac{2(cq^2 + 2qt - t)(\alpha - 1)}{2(cq + 2qt - q + t + 1)(\alpha - 1)q^2 - 2(cq + 2qt - q - t + 1)(\alpha - 1) + ((cq^2 + 2(q - 1)qk - 2R_c + 2s) (ct + 2t)(\alpha - 1) + ((cq^2 + 2(q - 1)qk - 2R_c + 2s) (ct = c + 2t - 2)\alpha} \]

\[ \times (ct + 2t)(\alpha - 1) + ((cq^2 + 2(q - 1)qk - 2R_c + 2s) (ct + 2t)(\alpha - 1) + ((cq^2 + 2(q - 1)qk - 2R_c + 2s) (ct = c + 2t - 2)\alpha} \]
Again, we set \( c = 1 \) and \( t = \frac{1}{2} \), and thus (16) can be simplified to the following:

\[
\frac{dq}{dR_c} = \frac{4(3(2\alpha - 1)q - 2\alpha + 1)}{27(3\alpha - 2)q^2 - 6(4R_c - 3)\alpha - 18(3\alpha - 2)q + 12(2\alpha - 1)s + 12R_c - 16}.
\]

From (17), we know that \( \frac{dq}{dR_c} > 0 \) if and only if:

\[
\frac{4(3(2\alpha - 1)q - 2\alpha + 1)}{27(3\alpha - 2)q^2 - 6(4R_c - 3)\alpha - 18(3\alpha - 2)q + 12(2\alpha - 1)s + 12R_c - 16} > 0,
\]

which means

\[
\frac{4(3(2\alpha - 1)q - 2\alpha + 1)}{27(3\alpha - 2)q^2 - 6(4R_c - 3)\alpha - 18(3\alpha - 2)q + 12(2\alpha - 1)s + 12R_c - 16} > 0 > -1,
\]

which means

\[
4(3(2\alpha - 1)q - 2\alpha + 1) > -[27(3\alpha - 2)q^2 - 6(4R_c - 3)\alpha - 18(3\alpha - 2)q + 12(2\alpha - 1)s + 12R_c - 16].
\]

Rearranging the above inequality, we obtain the following condition for the bargaining power of the foreign firm:

\[
\alpha > \frac{54q^2 - 36q + 12(s - R_c) + 16}{81q^2 - 30q + 10 + 24(s - R_c)}.
\]

From (19) we see that if \( R_c < s \), then the above inequality means that as long as the state’s subsidy is larger than the rent-seeking fees, given the foreign firm’s bargaining power is above a certain threshold, then a higher level of rent-seeking fees leads to higher output of this foreign firm. Hence, we have Proposition 3 in this paper.

**Proposition 3.** Given the level of state subsidy is larger than the rent-seeking fees, then a larger level of the foreign firm’s rent-seeking fees leads to a higher output by the foreign firm if and only if the foreign firm’s bargaining power in the host country is above a certain threshold—namely:

\[
\text{Given } R_c < S, \text{ } \frac{dq}{dR_c} > 0 \text{ if and only if } \alpha > \frac{54q^2 - 36q + 12(s - R_c) + 16}{81q^2 - 30q + 10 + 24(s - R_c)}.
\]

The implication behind Proposition 3 is that if the foreign firm enters the host country where the interlocal governmental competition is quite strong (like in China’s case) in terms of tax collection and enacting friendly FDI policies to promote the growth of the foreign firm in the local market including subsidy provisions, then the foreign firm does not need to undertake many rent-seeking activities to bribe the local government officials, because it would receive a sufficient amount of subsidies from the local government to allow it to produce a high level of output in the market. However, it does require the foreign firm to have a certain minimum level of bargaining power to undertake the basic rent-seeking activities such that it could convince the local government officials that it deserves more subsidies as this would mean greater tax revenue for the government.

### C. An Open Economy Model

In this section we extend our analysis into an open economy setting in the sense that the price of the local products sold is determined by the output in both local and foreign markets. We thus first express the inverse demand function faced by the newly entered foreign firm in China as \( P = 1 - q_r - q_f \), where \( q_f \) is the output of the foreign firm selling in the local market, and \( q_r \) is the output of this foreign firm selling to the other countries. In addition, \( q_r \geq 1, q_f \geq 1 \).

Second, we introduce the degree of intergovernmental competition into our model. This is illustrated by the following relationship between the political benefits derived by the bureaucrats, including the value of bribes, the official ranking promotion gains, and so on; for the number of local administrative units such as counties and cities in the local regions as well as the output of the firm, \( R_c = -k_1n + R_0 + k_2Q \), where \( k_1 \) and \( k_2 \) are two positive parameters, \( Q \) is the total output of the firm, \( n \) is the number of local administrative units, \( n \geq 2 \), and \( R_0 \) is the amount of bribes received by the local bureaucrats when \( n = 0 \) and \( Q = 0 \). If \( n \) is larger, then the degree of intergovernmental competition is more intense. The reason for assuming the negative relationship between \( R_c \) and \( n \) is that when the degree of intergovernmental competition is more intense, it is more unlikely that each individual local state will gain most of the political benefits or bribes offered by the firm. The reverse is true for the case that the individual state could monopolize the bribe rents if the degree of intergovernmental competition is much less intense. The positive relationship between the values of bribes and the firm’s output implies that if firms are larger, then they are more able to pay the bribes to the local state. Since paying the bribes is considered a cost for firms, therefore such a positive relationship
between \( R_c \) and \( Q \) allows us to make the rent-seeking cost endogenous to the size of firms.

The objective function of the state is to maximize the tax revenues from the foreign firm. On the other hand, the state also must provide subsidies to the foreign firm. We thus write its payoff function as:

\[
U_g = t \left[ (1 - q_l - q_r)q_l - \frac{c(q_l + q_r)^2}{2} \right] - s. \tag{20}
\]

For the foreign firm, its objective is to maximize profits, which can be written as follows:

\[
U_f = (1 - t) \left[ (1 - q_l - q_r)q_l - \frac{c(q_l + q_r)^2}{2} \right] - R_c + s, \tag{21}
\]

where \( R_c = -k_1 n + R_0 + k_2 Q \). The Nash bargaining problem given (20) and (21) is therefore:

\[
\text{Max} \quad W = \left\{ (1 - t) \left[ (1 - q_l - q_r)q_l - \frac{c(q_l + q_r)^2}{2} \right] - R_c + s \right\}^{\alpha}\]

\[\times \left\{ t \left[ (1 - q_l - q_r)q_l - \frac{c(q_l + q_r)^2}{2} \right] - s \right\}^{1-\alpha}. \tag{22}
\]

Before solving for (22), we first set \( t = \frac{1}{2} \) and \( c = 1 \) to make the calculation become easier. The optimization problem indicated by (22) can be rewritten as:

\[
\text{Max} \quad W = \left\{ \frac{1}{2} \left[ (1 - q_l - q_r)q_l - \frac{(q_l + q_r)^2}{2} \right] \right\}^{\alpha}\]

\[+ k_1 n - R_0 - k_2 (q_l + q_r) + s \right\}^{1-\alpha}. \tag{23}
\]

For the purpose of model tractability, we parameterize \( k_1 = 10 \), \( k_2 = 1 \), \( R_0 = 1 \), \( q_r = 12 \), and \( \alpha = \frac{1}{2} \).

We choose the values of \( k_1 \) and \( k_2 \) based on the equation \( R_c = -k_1 n + R_0 + k_2 Q \). Here, \( k_1 \) and \( k_2 \) represent the rate of change of the value of the bribes received by local bureaucrats (\( R_c \)) with respect to the number of administrative units in the local market (\( n \)) and total worldwide output of the firm (\( Q \); \( Q \) is likely to be larger than \( n \); \( Q \) is a large monetary variable that represents market size, while \( n \) is an ordinal variable). Thus, we argue that \( k_2 \) should be set to a value smaller than \( k_1 \), as otherwise the impact from \( Q \) on \( R_c \) will completely dominate that of \( n \) on \( R_c \), and the model may lose generalizability. Therefore, we set \( k_1 = 10 \) and \( k_2 = 1 \).

We similarly hold the view that \( q_r \), which represents the output of the firm in all foreign markets, will be larger than \( q_l \), which represents the output of the firm for the domestic market. This is realistic if a firm has access and ability to export to foreign markets and the size of the domestic market is smaller than the combined sum of all foreign markets, as is the case with exporting firms in China. Thus, we set \( q_r \) at the relatively large value of 12.

We finally set \( \alpha = 0.5 \). China has a long history (especially since the opening-up policies in 1978) of strong state capacity in terms of tax collection, and therefore the bargaining power of the state cannot be smaller than that of the firm. In order to be consistent with the current story of this paper, the bargaining power of newly entered firms cannot be small relative to that of the state. Therefore, we suggest that the bargaining power is symmetrical between state and firms.

The parameterized Nash product equation from (23) is therefore obtained as follows:

\[
W = \sqrt{-\frac{3}{4} q_l^2 + 10n - \frac{25}{2} q_l + s - 49}\]

\[\times \sqrt{-\frac{3}{4} q_l^2 - \frac{23}{2} q_l - s - 36}. \tag{24}
\]

Taking the derivative of (24) with respect to \( q_l \) and setting it equal to 0, the maximum Nash product functional trajectory that maximizes (24) can be derived as follows:

\[
9q_l^3 - 20(3n - 83)q_l + 216q_l^2 \]

\[\quad - 460n + 4s + 4054 = 0. \tag{25}
\]

\[
8\sqrt{-\frac{3}{4} q_l^2 + 10n - \frac{25}{2} q_l + s - 49}\]

\[\quad \sqrt{-\frac{3}{4} q_l^2 - \frac{23}{2} q_l - s - 36} = 0.
\]
From (25) we apply the implicit functional theorem to conduct the comparative static analysis of how the state subsidy, \( s \), varies with the degree of intergovernmental competition, \( n \). Hence, we obtain:

\[
\frac{ds}{dn} = 10 \left( \frac{4(3q_l+23)}{\sqrt{-\frac{3}{2} q_l^2 + 10n - 25\frac{q_l}{2} + s - 49} \sqrt{-\frac{3}{2} q_l^2 + 23\frac{q_l}{2} - s}} + \frac{9q_l^2 - 20(3n-83)q_l + 216q_l^2 - 460n + 4s + 4054}{\sqrt{-\frac{3}{2} q_l^2 + 10n - 25\frac{q_l}{2} + s - 49}} \right) \sqrt{-\frac{3}{2} q_l^2 + 23\frac{q_l}{2} - s - 36}.
\]

From Equation (26), we derive under what condition the sign of \( \frac{ds}{dn} \) is bigger than zero:

\[
\begin{align*}
3q_l^2 - 20n + 48q_l + 170 &> 0, \\
-3q_l^2 + 40n - 50q_l + 4s - 196 &> 0, \\
60nq_l - 3q_l^2 + 12qs + 460n &> 0, \\
-78q_l + 96s - 454 &\neq 0 \quad \text{(Condition 1)} \\
-3q_l^2 + 20n - 48q_l - 170 &> 0, \\
(3q_l^2 - 40n + 50q_l - 4s + 196)^3 &> 0, \\
60nq_l - 3q_l^2 + 12qs + 460n &> 0, \\
-78q_l + 96s - 454 &\neq 0 \quad \text{(Condition 2)}.
\end{align*}
\]

There are two sets of conditions above, and if we combine these two sets, then we obtain the final feasible condition that results in the positive sign of \( \frac{ds}{dn} \):

\[
n \geq \frac{11}{10}, \quad q_l > \frac{1}{3}(\sqrt{6\sqrt{10n + 11}} - 24), \\
s < \frac{1}{4}(-40n + 3q_l^2 + 50q_l + 196).
\]

These three conditions can be consistent with the numerical assumptions proposed here (we assume \( n \geq 2, \ q_l > 0, \) and \( s \geq 1 \)). The conditions on \( n \) and \( q_l \) are more relaxed than our assumptions (e.g., \( n \geq \frac{-11}{10} \) rather than \( n \geq 2 \)), while the \( s \) condition just adds an upper bound, which could be very large; \( q_l \) terms dominate the \( n \) term. Hence, we conclude that \( \frac{ds}{dn} > 0 \) and arrive in Proposition 4.

**PROPOSITION 4.** Under an open economy setting, state subsidies increase as the degree of intergovernmental competition becomes more intense, or mathematically, \( \frac{ds}{dn} > 0 \).

The key theme of the bilateral rent-seeking theories proposed in this paper is that the degree of intergovernmental competition in the local market largely determines the inclination for the local state to provide subsidies to the foreign firms. When the competition effect among different government units in the local market becomes greater, then in order to outperform the other counterpart administrative units in terms of the amount of FDI to attract, each individual county or province tends to provide a higher level of subsidies to the foreign firms in order to attract more FDI inflow. Hence, the result of Proposition 4 largely explains how the local political-economy structure like intergovernmental competition in China plays an important role in attracting FDI inflow from other countries.

**IV. AN EXTENSION MODEL**

In the above benchmark model, we do not distinguish the role of state between bureaucrats and institutions. Such distinction with respect to the role of the state would largely affect the generalization issues of the theoretical results derived from the previous benchmark model. In other words, if we treat the state as representative of bureaucrats, then those who seek rents or bribes are those bureaucrats who are willing to maximize personal wealth subject to some legal or political constraints. Therefore, these bureaucrats are no longer interested in maximizing the tax revenues that could be extracted from the foreign firm, but rather their personal political benefits stemming from the escalating amount of inward FDI.

When the state acts as bureaucrats, its objective function is to maximize the personal wealth, which is the amount of bribes. The objective function of the foreign firm is to maximize profits, but without receiving subsidies from the state, because bureaucrats as the human elements of the state would not pay the subsidies to the firms. Bearing this in mind, the state as bureaucrats is going to maximize:

\[
U_h = R_s(q_l) = -k_1n + R_0 + k_2(q_L + q_r).
\]

First, the rationale behind the functional form is that unlike the situation under which the state acts as institutions (government) and pays the
subsidies to the foreign firms, the state acting as bureaucrats would not pay out the subsidy from her/his pocket. This is why, from Equation (27), there is no subsidy subtracting from the total level of bribes she/he receives from the foreign firms.

Second, the function form of the total amount of bribes received by the bureaucrats is also in line with the spirit of “race to bottom theory” in the FDI literature on China regarding why local bureaucrats have incentives to enter into the bilateral rent-seeking process. According to Keng and Chen (2015), with the pressure of time (that bureaucrats are actually in power) as well as the intensive intergovernmental competition faced by bureaucrats, attracting FDI often becomes the top priority for the local government, through almost all its workforce and at all costs including the provision of subsequent tax breaks, free land, as well as turning a blind eye to environmental and labor market regulations. As such, a higher intensity of intergovernmental competition would prevent local bureaucrats who are in charge of their regions from monopolizing the benefits or bribes that they could derive from attracting the FDI as the other bureaucrats from other administrative regions would also compete in attracting the inward FDI. This provides the rationale for why the local state has very strong incentives to provide subsidies to foreign firms through the bilateral rent-seeking process in order to monopolize the bribes that bureaucrats could extract from inward FDI. Bearing this analysis in mind, we argue that there exists a negative relationship between the intensity of intergovernmental competition and the amount of bribes that local bureaucrats could extract. The first term of the right-hand side of Equation (27) precisely captures this insight.

Similarly, the objective function for the foreign firm could be expressed as follows:

\[ U_f^b = \left(1 - q_l - q_r\right)q_l - \frac{c(q_l + q_r)^2}{2} - R'_c, \]

where \( R'_c = -k_1n + k_2(q_l + q_r) + k_3s + R_0 \).

Here \( R'_c \) stands for the amount of bribes that the foreign firm pays to the local bureaucrats. It could be seen that the functional form for the amount of bribes that the foreign firm pays to the local bureaucrats (\( R'_c \)) is different from those that the foreign firm pays to the local state (\( R_c \)). The former type of bribes is not only related to the intensity of intergovernmental competition (\( n \)) and the total output produced by the foreign firm, but is also positively varied with the subsidies that the foreign firm receives from the local state. This is because when the local state acts as institutions rather than bureaucrats, the foreign firms’ rent-seeking cost which is the amount of bribe she/he has to pay to the local state does not include the amount of bribe that state is willing to collect when it acts as bureaucrats. Therefore, the additional term appearing in \( R'_c \) compared with \( R_c \), which is \( k_3s \) represents the personal benefits that local bureaucrats could derive from the foreign firm. As we could see that this additional term representing local bureaucrats’ personal benefits are positively varied with the level of subsidies that the foreign firm receives from the local state. This makes sense because in line with the results predicted by Proposition 1, the higher level of subsidies that foreign firm receives from the local state, the higher level of bribes that she/he is willing to pay.

Given (27) and (28), the Nash bargaining problem when the state acts as bureaucrats is:

\[
\max_{q_l} W^b = \left\{ -k_1n + R_0 + k_2(q_l + q_r) \right\} \alpha \times \left\{ \left(1 - q_l - q_r\right)q_l - \frac{c(q_l + q_r)^2}{2} \right\}^{1-\alpha} - R'_c \right\}^{1-\alpha}. 
\]

Setting \( c = 1 \) and substituting (27) and (28) into (29), we can rewrite (29) as follows:

\[
\max_{q_l} W^b = \left\{ -k_1n + R_0 + k_2(q_l + q_r) \right\} \alpha \times \left\{ 2k_2(q_l + q_r) - \frac{1}{2}(q_l + q_r)^2 \right\}^{-\alpha}, 
\]

Again, for the purpose of the model’s tractability, we parameterize \( k_1 = 10, k_2 = 1, R_0 = 1, \) and \( \alpha = \frac{1}{2}, k_3 = 2. \)

After the parameterization of (30), we take the derivative of (30) with respect to \( q_l \), set it equal to 0, and obtain the following functional

---

4. This functional form of Nash bargaining problem when the local state acts as bureaucrats also ensures that there will be no issues of unboundedness of the objective function.
form for the maximum Nash product equation that maximizes Equation (30):

\[
(3q_l^2 + 50q_l + 170)\sqrt{-10n + q_l + 13} + 2q_l - 2s - 85
\]

\[
= 0.
\]

We can apply the implicit functional theorem on (31) to conduct the comparative static analysis to get the derivative of the level of subsidy with respect to the degree of intergovernmental competition:

\[
\frac{ds}{dn} = \frac{-5(3q_l)^2 + 50q_l + 2q_r + 4s + 170}{2(10n - q_l - 13)}.
\]

Since \( s \geq 0, q_l \geq 1, \) and \( n \geq 2. \) The numerator is always positive. Hence, to ensure that (32) is bigger than 0, the denominator must be negative.

We know that \( 2(10n - q_l - 13) < 0 \) if and only if

\[
q_l > 10n - 13.
\]

Hence, we could have the last proposition in this paper:

**PROPOSITION 5.** Under an open economy setting given the state acts as bureaucrats, state subsidies increase as the degree of intergovernmental competition becomes more intense if and only if the output produced by the foreign firm sold in the local market is sufficiently large. Mathematically, \( \frac{ds}{dn} > 0 \) if and only if \( q_l > 10n - 13. \)

Proposition 5 implies that even though the state acts as bureaucrats, intergovernmental competition still plays a crucial part in terms of affecting the amount of subsidies that they are willing to pay to the foreign firms. The positive relationship between the degree of intergovernmental competition and the amount of state subsidies toward foreign firms when the state acts as bureaucrats is not surprising, because intergovernmental competition would force the bureaucrats to subsidize more to the foreign firms due to their incentives to extract bribes from these firms. However, Proposition 5 also shows that the premise for such positive relationship to hold is that the foreign firms must contribute substantially to the local economic growth (sufficiently large level of local output). This makes sense because if foreign firms are not competitive enough and unable to contribute substantially to the local economic growth, then even through the intensity of intergovernmental competition is very high, there are no incentives for the local state to provide subsidies for the foreign firm.

V. SOME SUGGESTIVE EMPIRICAL EVIDENCE

This section offers some suggestive empirical evidence to test several propositions offered by the benchmark model.

A. Data and Sample Selection

To empirically examine Propositions 1 and 2, this paper needs to look at foreign firms as the research sample and acquire data on foreign direct investment (FDI), government subsidies, and firms’ bribes. Due to data availability, there is little financial information about foreign corporations in China. This paper looks to utilize listed firms in China as the research sample, but the China government has imposed strong restrictions upon foreign ownership for listed firms.\(^5\) There are mainly three kinds of foreign ownership in Chinese-listed firms: A + B, A + H, and qualified foreign institutional investor (QFII) (Lei and Lu 2019). Shares represent those listed firms traded by domestic investors in the Shanghai Stock Exchange and Shenzhen Stock Exchange, and stocks are traded in Renminbi. A + B shares denote A-share firms that have also issued B shares, which can be traded by foreign investors, and B shares are traded in U.S. dollars.\(^6\) A + H shares represent A-share firms that also issued shares in the Hong Kong Stock Exchange (HKEx), which are allowed to be traded by foreign investors in HKEx and are valued in Hong Kong dollars. Some foreign investors are allowed to trade A shares after acquiring qualifications, and they are known as QFIIs,\(^7\) but there is almost no change in B share ownership and H share ownership of these firms, except for those that issue new stock. Thus, it is hard to observe the time variation for B share and H share ownerships, making it impossible for us to analyze the

5. A single foreign investor can only hold up to 10% ownership, and total foreign ownership cannot exceed 30%.

6. Foreign investors have been able to invest in China-listed firms since 1992, when the Shanghai Stock Exchange began issuing B shares; listed firms can only issue no more than 25% B shares (Su 1999).

7. In 2002, the China Securities Regulatory Commission (CSRC) issued the “Provisions on the Implementation of the Securities Regulation on the Investment of Qualified Foreign Institutional Investors (QFII)” and regulates that foreign ownership for listed firms can be no more than 30%.
TABLE 2
Correlation Analysis between QFII and FDI

<table>
<thead>
<tr>
<th></th>
<th>FDI</th>
<th>FDI2</th>
<th>QFII</th>
</tr>
</thead>
<tbody>
<tr>
<td>FDI</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FDI2</td>
<td>1.000***</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>QFII</td>
<td>0.720***</td>
<td>0.732***</td>
<td>1</td>
</tr>
</tbody>
</table>

*Note: QFII is the annual increased investment quota for the QFII investors. FDI is the total foreign investment in each year and FDI2 is the foreign direct investment.

*p < .1; **p < .05; ***p < .01.

dynamics of FDI inflow. To examine the bilateral rent-seeking activities, this paper only chooses Chinese-listed firms in which QFII investors have ever invested as our selected research sample.

This paper collects the main financial information from the Chinese Stock Market and Accounting Research database. Thus, QFII is a better proxy for us to examine the bilateral rent-seeking activities. Previous studies have proven that QFII investors help enhance firms’ innovation capacity, improve corporate governance, and promote firms’ performance (Beatson and Chen 2018; Qiao and Li 2019; Tan 2009). Besides, we carry out the Pearson correlation analysis between QFII and FDI and the results are shown in Table 2. The correlation coefficients between QFII and FDI are positive and significant, indicating that QFII is a good proxy for FDI. In the Table 2, QFII is the annual increased investment quota for the QFII investors. FDI is the total foreign investment in each year and FDI2 is the foreign direct investment. The total foreign investment contains foreign direct investment, which foreign investors invest in firms directly, and other foreign investment, including issuing foreign stocks, international lease, trade subsidy. However, there are some limitations by using QFII as the proxy. From the statistical perspective, QFII cannot reflect all the foreign investment of a firm. There are still other kinds of foreign investment, including B shares, H shares, so that QFII might not represent all the FDI. Besides, some QFII might just purchase stocks following the index and do not participate in the firms’ operation or director board. Thus, partial QFII cannot have the economic spillover effect or technology transfer. From the policy perspective, the investment quota of QFII is determined by the central government and local government cannot increase the QFII quota. Despite that local government mainly affect the distribution of current QFII while cannot attract the new QFII. Thus, the policy implication might be limited. Although QFII has these limitations, QFII is still a best proxy for this paper considering the data availability.

In terms of the sample selection, observations with negative operating revenues and financial leverage greater than 1 are deleted. Thus, firms with special treatment, including ST, *ST, and PT, are dropped. Next, firms in financial industries are deleted, because they show a large difference in financial statements versus other industries. Observations during the initial public offering year are also excluded. Finally, this paper eliminates observations with missing variables. In total, we have 10,110 observations of 1,130 firms from 2007 to 2018. To alleviate the impact of extreme values, all variables are winsorized at the 1% level.

B. Empirical Design

Testing of Proposition 1. This paper follows Héricourt and Poncet (2009), Lee and Hsieh (2014), and Hu and Jefferson (2002) who used foreign ownership as the proxy for firm-level FDI. More specifically, QFII ownership is employed as the proxy for foreign ownership of listed firms in China (Jin et al. 2016). For government subsidy information, listed firms disclose any government subsidy in the notes of their financial statements (Table A1 in Appendix). This paper employs the ratio of government subsidy to total assets as the measurement for government subsidy.

To examine the impact of government subsidy on FDI, this paper designs the following empirical model:

\[ FDI = \alpha + \beta \text{Subsidy} + \gamma \text{Control} + \sum \text{Firm, Industry, Year} + \varepsilon. \] (34)

In Equation (34), this paper controls other firms’ characteristics, including a firm’s sales growth (Growth), financial leverage (Lev), cash holdings (Cash Holding), state ownership (State), firm age (Firm Age), largest shareholder’s ownership (Top1), and firm size (Size). Firm, industry, and year fixed effects are also controlled. All the variables definitions are presented in Table 3.

In order to explore the relationship between a firm’s bribe and a government subsidy, information on such a bribe is required. This paper

8. Subsidy information is disclosed from 2003, and so we begin the sample in 2003.
TABLE 3
Definition of Variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>FDI</td>
<td>Share ownership of QFIIs, which is the ratio of total shares owned by QFIIs to total circulating shares</td>
</tr>
<tr>
<td>Subsidy</td>
<td>Ratio of government subsidy to total assets for the listed firms</td>
</tr>
<tr>
<td>Bribe</td>
<td>Bribe expenditure, which is estimated based on Equation (35) (Xu, Zhou, and Du 2019)</td>
</tr>
<tr>
<td>ROA</td>
<td>Return on total assets</td>
</tr>
<tr>
<td>MS</td>
<td>Ratio of firms’ operating sales in the total industry, which is utilized to proxy for their bargaining power</td>
</tr>
<tr>
<td>Sales</td>
<td>Natural logarithm of firms’ operating revenues</td>
</tr>
<tr>
<td>Compensation</td>
<td>Natural logarithm of all executives’ compensation</td>
</tr>
<tr>
<td>PPE</td>
<td>Ratio of net fixed assets to total assets</td>
</tr>
<tr>
<td>Marketing</td>
<td>Ratio of sales expense to operating sales</td>
</tr>
<tr>
<td>Size</td>
<td>Natural logarithm of total assets</td>
</tr>
<tr>
<td>Growth</td>
<td>Growth rate of firms’ operating revenues</td>
</tr>
<tr>
<td>Lev</td>
<td>Firms’ total debt scaled by total assets</td>
</tr>
<tr>
<td>State</td>
<td>Dummy variable, with one for SOEs</td>
</tr>
<tr>
<td>Cash Holding</td>
<td>Ratio of total cash and cash equivalents to total assets</td>
</tr>
<tr>
<td>Top1</td>
<td>Share ownership of largest shareholder</td>
</tr>
<tr>
<td>Firm Age</td>
<td>The time (years) that a firm has been listed</td>
</tr>
<tr>
<td>Industry</td>
<td>Dummy variable to control the industry fixed effect. This paper employs the first two digit of CSRC 2012 industry classification</td>
</tr>
<tr>
<td>Year</td>
<td>Dummy variable to control the year fixed effect</td>
</tr>
</tbody>
</table>

This paper next utilizes the following to examine the relationship between firm’s bribe expenditure and government subsidy:

\[
\text{Subsidy} = \alpha + \beta_1 \text{Bribe} + \beta_2 \text{Control} + \sum \text{Firm, Industry, Year} + \epsilon. 
\]

Proposition 1 proposes that a firm bribe increases the government subsidy and finally contributes to an increase of FDI. Thus, this paper examines whether a bribe could affect FDI through a subsidy and conducts interaction analysis between the two. The regression model is shown in Equation (37). If a bribe increases FDI though a subsidy, then there is a positive and significant \(\beta_3\).

\[
\text{FDI} = \alpha + \beta_1 \text{Bribe} + \beta_2 \text{Subsidy} + \beta_3 (\text{Bribe} \times \text{Subsidy}) + \gamma \text{Control} + \sum \text{Firm, Industry, Year} + \epsilon. 
\]

Testing of Propositions 2 and 3. For a firm’s output, this paper utilizes return on assets (ROA) as proxy for firm performance (Hambrick and Quigley 2014; Waddock and Graves 1997) and employs the market share (MS) of the firms in the industry as a proxy for bargaining power. If a firm occupies a large MS, then it should have stronger bargaining power. It is hard to know the threshold of bargaining power, and so this paper divides the sample into two MS subgroups based on the natural logarithm of total assets.
This study also conducts Pearson correlation analysis among the main variables and shows the results in Table 5. Subsidy has a positive and significant correlation coefficient with FDI, and Bribe correlates positively with Subsidy. These results are consistent with Proposition 1 and denote that a government subsidy could promote FDI and firms’ bribes also promote the government subsidy. Bribe and Subsidy have positive correlation coefficients with ROA, indicating that both benefit firms’ performance.

### D. Regression Analysis

The regression result for the relationship between government subsidy and FDI appears in Table 6. In model 1, subsidy, firm, industry, and year fixed effects are included, while control variables are added in model 2. The $p$ values of the $F$ test are lower than .05, verifying the significance of combined coefficients. This study utilizes the methodology of Driscoll and Kraay (1998) to adjust the standard errors, and the results are robust to possible heteroskedasticity and autocorrelation problems.

The coefficients for subsidy are positive and significant in both models 1 and 2 in Table 6. This result indicates that government subsidy could promote foreign investment, which is consistent with Proposition 1. The coefficients of State and Firm age are significantly negative, showing that firms with SOE and firm age reduce foreign investment. In other words, SOEs and older firms attract lesser foreign investment. The variables Cash Holding and Top1 have positive and significant coefficients, illustrating that firms with higher cash holding levels and higher shares for largest shareholders are more attractive to foreign investors.

There also might be an endogenous concern about the regression results between subsidy and FDI, because higher-level FDI might lead to more government subsidies. To address this, we utilize the instrumental variable (IV) regression. The instrumental variable needs to meet two requirements: (a) IV can significantly affect government subsidy; and (b) IV does not affect FDI directly or through other omitted variables. Following the strategy of Lin, Lin, and Song (2010) and Fisman and Svensson (2007), this paper employs the average subsidy of other firms in the same industry and year. The government subsidies to peer firms affect a firm’s subsidy, but are unlikely to directly affect firms’ FDI, meeting the IV requirements. Thus, 2SLS IV regression is carried out, and the results are in Table 7. Models 1 and 3 reports the first-stage regression result

### C. Summary Statistics

This paper presents the summary statistics for the main variables in Table 4. The sample firms have about 0.39% of total QFII ownership and receive about 0.5% of total government subsidy. Firms earn about 4.5% ROA each year, have about 16% of assets in cash, possess 46.7% leverage, have 18.6% sales growth, and have 37.385% of shares owned by the largest shareholder. State-owned enterprises (SOEs) are about 56.3% of the total sample.

This study also conducts Pearson correlation analysis among the main variables and shows

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>FDI</td>
<td>10,110</td>
<td>0.390</td>
<td>1.153</td>
<td>0.000</td>
<td>13.444</td>
</tr>
<tr>
<td>Subsidy</td>
<td>10,110</td>
<td>0.005</td>
<td>0.007</td>
<td>0.000</td>
<td>0.052</td>
</tr>
<tr>
<td>Bribe</td>
<td>10,110</td>
<td>0.001</td>
<td>0.009</td>
<td>-0.017</td>
<td>0.056</td>
</tr>
<tr>
<td>ROA</td>
<td>10,110</td>
<td>0.045</td>
<td>0.052</td>
<td>-0.276</td>
<td>0.220</td>
</tr>
<tr>
<td>Size</td>
<td>10,110</td>
<td>22.490</td>
<td>1.305</td>
<td>19.712</td>
<td>26.315</td>
</tr>
<tr>
<td>Cash Holding</td>
<td>10,110</td>
<td>0.160</td>
<td>0.124</td>
<td>-0.060</td>
<td>0.873</td>
</tr>
<tr>
<td>Lev</td>
<td>10,110</td>
<td>0.467</td>
<td>0.198</td>
<td>0.035</td>
<td>0.886</td>
</tr>
<tr>
<td>Growth</td>
<td>10,110</td>
<td>0.186</td>
<td>0.385</td>
<td>-0.649</td>
<td>3.347</td>
</tr>
<tr>
<td>State</td>
<td>10,110</td>
<td>0.563</td>
<td>0.496</td>
<td>0.000</td>
<td>1.000</td>
</tr>
<tr>
<td>Firm Age</td>
<td>10,110</td>
<td>11.301</td>
<td>6.106</td>
<td>1.000</td>
<td>26.000</td>
</tr>
<tr>
<td>Top1</td>
<td>10,110</td>
<td>37.385</td>
<td>15.095</td>
<td>8.500</td>
<td>77.290</td>
</tr>
</tbody>
</table>

Note: All the variables definitions are presented in Table 3.
and the coefficient of IV is significantly positive, showing that subsidy in peer firms could significantly promote the firms’ subsidy. More specifically, one unit increase in the peer firms’ subsidy would lead to about 0.135 increases in firms’ subsidy. The coefficient of predicted subsidy is still positive and significant, which is consistent with the prior result. This indicates that a government subsidy causally promotes firms’ FDI.

This paper next examines the impact of firm bribe and government subsidy and shows the results in Table 8. Bribe’s coefficient is positive and significant at the 1% level, showing that higher levels of it promote government subsidy. To be more specific, firms with higher bribe expenditures obtain more government subsidies, and this finding is in line with Proposition 1. Moreover, Size, Cash holding, Growth, and Top1 have negative and significant coefficients, indicating that firms with larger size, high cash holding, sales growth, and largest ownership acquire lesser government subsidies.

This paper finally examines whether a bribe promotes FDI by increasing a government subsidy with the results appearing in Table 9. The coefficients of subsidy and bribe are not significant, implying that subsidy does not affect FDI if firms have zero bribe expenditure, while bribe has no substantial effect on FDI if firms do not acquire a government subsidy. However, Bribe × Subsidy has a positive and significant coefficient, showing that a bribe does promote FDI in firms with a government subsidy. In other words, a bribe has no impact on FDI if firms have no subsidy, while there is a positive impact of FDI when firms acquire a government subsidy. This result demonstrates that bribes promote FDI through government subsidies, which is consistent with Proposition 1.

For the full empirical test of Proposition 2, this paper divides the sample according to the median value of bargaining power, proxied by the MS of a firm in a certain industry. The empirical results are in Table 10. While the coefficients for subsidy are significant in both models, the coefficients are higher in model 1. This result indicates that a government subsidy promotes firms’ performance, and this effect is more pronounced in firms with low bargaining power. We thus provide evidence that firms with low bargaining power enjoy more benefits from a government subsidy, which verifies Proposition 2.

To fully test Proposition 3, this paper divides the sample into two parts according to the
median value of bargaining power. In Table 11, the coefficient of bribe is only positively significant in the group with high bargaining power, illustrating that bribe expenditures only increase firms' operating sales for those with strong bargaining power. In other words, firms' rent-seeking expenses raise their output only when they have stronger bargaining power. This result verifies Proposition 3.

VI. POLICY IMPLICATIONS

The main policy implication of our paper is that the rent-seeking activities arising during the process of FDI inflow do not necessarily inhibit the impact of FDI on local economic growth as the conventional rent-seeking theory would suggest. This is because the conventional rent-seeking theory endorsed by Tullock (1967) and Krueger (1974) normally treats firms as the main rent-seekers and government as the rent-setter. According to their theory, if foreign firms want to enter the local market, then they have to pay a sufficiently high amount of rent-seeking fees to the local state to get the privilege of operating in the local market.

Our theory indicates that due to the intense intergovernmental competition in the local regions, the local governments convert to the role as rent-seekers in terms of tax collection and subsidy provisions whereas foreign investors become rent-setters. Therefore, the meaning of rent-seeking activities is obviously very different from the one argued by the traditional rent-seeking theory. The traditional case of rent-seeking activities arising during FDI in most developing countries is that the local state has the dominant role in terms of the bargaining between itself and foreign investors, and it is in its interest to pick a winner firm that is entitled to get the privilege of monopolistic status in the market from a pool of foreign firm candidates. Nonetheless, what has occurred in China teaches us the fact that a monopolistic foreign firm could have equal bargaining power compared with the local state. This directly explains why FDI inflow has risen massively in the last few decades in China.

Another policy implication runs in terms of extensions to the traditional rent-seeking
TABLE 8
Impact of Firms’ Bribes on Government Subsidy

<table>
<thead>
<tr>
<th>Variable</th>
<th>Model 1 Subsidy</th>
<th>Model 2 Subsidy</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Bribe</td>
<td>Bribe</td>
</tr>
<tr>
<td></td>
<td>0.043*** (3.976)</td>
<td>0.038*** (3.544)</td>
</tr>
<tr>
<td>Size</td>
<td>−0.001*** (−4.688)</td>
<td>−0.001** (−2.238)</td>
</tr>
<tr>
<td>Cash Holding</td>
<td>0.001 (1.627)</td>
<td>0.001 (1.269)</td>
</tr>
<tr>
<td>Lev</td>
<td>0.035 (0.743)</td>
<td>0.182** (2.167)</td>
</tr>
<tr>
<td>Growth</td>
<td>−0.000*** (−4.516)</td>
<td>−0.001*** (−4.448)</td>
</tr>
<tr>
<td>State</td>
<td>0.001 (0.743)</td>
<td>−0.095 (−1.597)</td>
</tr>
<tr>
<td>Firm Age</td>
<td>−0.307*** (−1.306)</td>
<td>−0.211*** (−1.597)</td>
</tr>
<tr>
<td>Top1</td>
<td>0.006*** (13.019)</td>
<td>0.039*** (2.783)</td>
</tr>
<tr>
<td>Constant</td>
<td>0.281*** (8.555)</td>
<td>12.760 (1.575)</td>
</tr>
</tbody>
</table>

Notes: Standard errors are robust to heteroskedastic, autocorrelated problems, and the T-statistics are shown in parentheses.
*p < .1; **p < .05; ***p < .01.

TABLE 9
Impact of Firms’ Bribes on Foreign Direct Investment

<table>
<thead>
<tr>
<th>Variable</th>
<th>Model 1 FDI</th>
<th>Model 2 FDI</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Subsidy</td>
<td>Subsidy</td>
</tr>
<tr>
<td></td>
<td>0.146 (0.195)</td>
<td>0.632 (0.714)</td>
</tr>
<tr>
<td>Bribe</td>
<td>−2.742 (−1.358)</td>
<td>−2.348 (−1.160)</td>
</tr>
<tr>
<td>Bribe × Subsidy</td>
<td>0.030*** (7.088)</td>
<td>0.030*** (8.145)</td>
</tr>
<tr>
<td>Size</td>
<td>0.035 (0.743)</td>
<td>0.182** (2.167)</td>
</tr>
<tr>
<td>Cash Holding</td>
<td>−0.095 (−1.583)</td>
<td>−0.095 (−1.583)</td>
</tr>
<tr>
<td>Growth</td>
<td>0.053*** (3.911)</td>
<td>−0.817* (−1.680)</td>
</tr>
<tr>
<td>State</td>
<td>−0.095 (−1.597)</td>
<td>−0.095 (−1.597)</td>
</tr>
<tr>
<td>Firm Age</td>
<td>0.005*** (2.796)</td>
<td>0.005*** (2.796)</td>
</tr>
<tr>
<td>Top1</td>
<td>0.281*** (8.555)</td>
<td>12.760 (1.575)</td>
</tr>
</tbody>
</table>

Notes: Standard errors are robust to heteroskedastic, autocorrelated problems, and the T-statistics are shown in parentheses.
*p < .1; **p < .05; ***p < .01.

Note: Several extensions of the traditional rent-seeking theory appear in a recent work by Khan and Sundaram (2000).
large amount of subsidies from the local government. The higher the rent-seeking fees are that the foreign investor pays, the larger is the amount of subsidies provided by the local government.

VII. CONCLUSIONS

This research constructs a Nash bargaining model to discuss what has driven the massive scale of FDI flows into China in the past several decades. Our paper proposes a new theory called bilateral rent-seeking, which is distinct from the traditional theory of rent-seeking. What we see from China’s FDI inflows is that, under certain conditions such as the existence of intense competition among local governments driven by the fiscal federalist system and political tournament, the local state becomes a rent-seeker that is willing to pay a sufficiently large amount of subsidies to foreign investors that act as rent-setters. Such preferential policies enacted by the local government could largely explain why there has been such huge FDI flow into China.

We further construct a Nash bargaining model to illustrate our argument. First, our model indicates that the subsidies provided by the local government positively vary with the rent-seeking fees paid by the foreign investor. Second, given that the level of subsidies is larger than the rent-seeking fees, we show that escalating both the level of the state’s subsidies and the foreign firm’s rent-seeking fees could lead to higher output by the foreign firm if and only if that firm has more symmetrical bargaining power compared with the local state. Moreover, the empirical evidence presented herein is broadly consistent with the theories proposed in this paper. This research offers far-reaching policy implications in terms of attracting FDI as mentioned at the end of the paper.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Model 1 (Low bargaining power)</th>
<th>Model 2 (High bargaining power)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subsidy</td>
<td>0.643*** (11.039)</td>
<td>0.231 (1.580)</td>
</tr>
<tr>
<td>Size</td>
<td>0.009*** (7.061)</td>
<td>−0.001 (−0.246)</td>
</tr>
<tr>
<td>Cash Holding</td>
<td>0.046*** (3.819)</td>
<td>0.056*** (6.824)</td>
</tr>
<tr>
<td>Lev</td>
<td>−0.129*** (−38.953)</td>
<td>−0.156*** (−27.097)</td>
</tr>
<tr>
<td>Growth</td>
<td>0.028*** (22.354)</td>
<td>0.019*** (22.125)</td>
</tr>
<tr>
<td>State</td>
<td>0.007 (1.309)</td>
<td>0.003 (1.504)</td>
</tr>
<tr>
<td>Firm Age</td>
<td>−0.004*** (−8.975)</td>
<td>0.008*** (2.385)</td>
</tr>
<tr>
<td>Top1</td>
<td>0.001*** (7.215)</td>
<td>0.000*** (4.811)</td>
</tr>
<tr>
<td>Constant</td>
<td>−0.007*** (−4.861)</td>
<td>−0.047 (−1.268)</td>
</tr>
<tr>
<td>Observations</td>
<td>4,987</td>
<td>4,980</td>
</tr>
<tr>
<td>Year FE</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Industry FE</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Firm FE</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>F test (p value)</td>
<td>.000</td>
<td>.000</td>
</tr>
</tbody>
</table>

Note: Standard errors are robust to heteroskedastic, autocorrelated problems, and the T-statistics are shown in parentheses.

*p < .1; **p < .05; ***p < .01.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Model 1 (Low bargaining power)</th>
<th>Model 2 (High bargaining power)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bribe</td>
<td>−0.287*** (−5.642)</td>
<td>0.232*** (2.287)</td>
</tr>
<tr>
<td>Size</td>
<td>0.008*** (6.186)</td>
<td>0.001 (0.250)</td>
</tr>
<tr>
<td>Cash Holding</td>
<td>0.044*** (3.806)</td>
<td>0.057*** (5.588)</td>
</tr>
<tr>
<td>Lev</td>
<td>−0.128*** (−40.019)</td>
<td>−0.155*** (−21.506)</td>
</tr>
<tr>
<td>Growth</td>
<td>0.028*** (21.540)</td>
<td>0.018*** (13.361)</td>
</tr>
<tr>
<td>State</td>
<td>0.009* (1.860)</td>
<td>0.002 (0.616)</td>
</tr>
<tr>
<td>Firm Age</td>
<td>−0.004*** (−8.968)</td>
<td>0.008 (1.516)</td>
</tr>
<tr>
<td>Top1</td>
<td>0.001*** (6.823)</td>
<td>0.000*** (4.303)</td>
</tr>
<tr>
<td>Constant</td>
<td>−0.074*** (−3.593)</td>
<td>−0.065 (−1.104)</td>
</tr>
<tr>
<td>Observations</td>
<td>4,987</td>
<td>5,123</td>
</tr>
<tr>
<td>Year FE</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Industry FE</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Firm FE</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>F test (p value)</td>
<td>.000</td>
<td>.000</td>
</tr>
</tbody>
</table>

Note: Standard errors are robust to heteroskedastic, autocorrelated problems, and the T-statistics are shown in parentheses.

*p < .1; **p < .05; ***p < .01.
TABLE A1
The Accounting Bureau of China’s Ministry of Finance Implemented the Accounting Standard for Business Enterprises No. 16—Government Subsidy (Standard No. 16) on January 1, 2007

<table>
<thead>
<tr>
<th>Term</th>
<th>Type</th>
<th>Current Year</th>
<th>Last Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Science and technology development project subsidy</td>
<td>Innovation</td>
<td>5,494,858</td>
<td></td>
</tr>
<tr>
<td>Value added tax refund</td>
<td>Tax</td>
<td>2,814,198</td>
<td>11,558,589</td>
</tr>
<tr>
<td>Employee resettlement subsidy</td>
<td>Employee</td>
<td>2,705,680</td>
<td>945,814</td>
</tr>
<tr>
<td>Support fund for service outsourcing business</td>
<td>Operation</td>
<td>4,912,850</td>
<td></td>
</tr>
<tr>
<td>Business development special fund</td>
<td>Operation</td>
<td>1,694,300</td>
<td></td>
</tr>
<tr>
<td>Subsidy for foreign trade</td>
<td>Foreign trade</td>
<td>1,080,000</td>
<td>370,100</td>
</tr>
<tr>
<td>Subsidy for foreign economic and trade development</td>
<td>Foreign trade</td>
<td>640,000</td>
<td></td>
</tr>
<tr>
<td>Container development incentive</td>
<td>Operation</td>
<td>531,060</td>
<td></td>
</tr>
<tr>
<td>Relocation compensation</td>
<td>Land transfer</td>
<td>514,349.7</td>
<td></td>
</tr>
<tr>
<td>Provincial “Science and Technology Trade Project”</td>
<td>Innovation</td>
<td>500,000</td>
<td></td>
</tr>
<tr>
<td>New product reward</td>
<td>Innovation</td>
<td>480,200</td>
<td></td>
</tr>
<tr>
<td>Exportation credit insurance premium subsidy</td>
<td>Foreign trade</td>
<td>353,200</td>
<td>706,323.0</td>
</tr>
<tr>
<td>City-level “International technology cooperation project”</td>
<td>Foreign trade</td>
<td>300,000</td>
<td></td>
</tr>
<tr>
<td>International brand award</td>
<td>Operation</td>
<td>200,000</td>
<td></td>
</tr>
<tr>
<td>Procedure fee of Finance Bureau</td>
<td>Operation</td>
<td>177,824.1</td>
<td></td>
</tr>
<tr>
<td>Award for attracting foreign investment</td>
<td>FDI</td>
<td>150,000</td>
<td></td>
</tr>
<tr>
<td>Patent subsidy</td>
<td>Innovation</td>
<td>135,400</td>
<td>259,500</td>
</tr>
<tr>
<td>Special guidance fund for modern service industry development</td>
<td>Operation</td>
<td>52,800</td>
<td>753,200</td>
</tr>
<tr>
<td>Land transfer fee refund</td>
<td>Land transfer</td>
<td>19,545,100</td>
<td></td>
</tr>
<tr>
<td>Award for the sales growth of key enterprises</td>
<td>Operation</td>
<td>14,487,000</td>
<td></td>
</tr>
<tr>
<td>Investment tax award</td>
<td>Tax</td>
<td>9,901,000</td>
<td></td>
</tr>
<tr>
<td>Science and technology award</td>
<td>Innovation</td>
<td>1,800,000</td>
<td></td>
</tr>
<tr>
<td>Science part project fund</td>
<td>Innovation</td>
<td>584,400</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>Other</td>
<td>598,977.7</td>
<td>806,760.2</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>23,335,698</td>
<td>61,717,786</td>
</tr>
</tbody>
</table>

Notes: In this standard, firms need to disclose any asset-related and income-related government subsidies. There are various items of government subsidy for firms, including R&D subsidy, pollution governance award, tax refunds, land transfer compensation, and so on. We present an example for the firm “Lttle Swan” (stock code: 000418) in 2012.

REFERENCES


