INSTITUTION BUILDING AND FDI

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To be presented at the Conference on  
Financial Sector Reform in China  
September 11-13, 2001
Abstract: New-institutionalism posits that economic activities are not shaped by market forces alone. Non-market institutions matter. Through the prism of FDI flows to China, this article studies the evolutionary process of the institutional framework of China’s FDI-related laws and policies over the reform years. With the aid of a formal investment model covering both space and time, it demonstrates systematic institutional effects on investment behavior, while controlling for economic factors, e.g. market size, labor cost and infrastructure.

Since economic reforms began in 1978, China has undergone radical structural change from a command to a market-oriented system, and with it, dramatic economic results. The country’s gross domestic product (GDP) has enjoyed an average annual growth rate of about 10% for the past two decades, and its foreign trade 15%. Among the various facets of its impressive economic achievements is a massive influx of foreign direct investment (FDI). Starting from a moderate level, averaging about US$1 billion in the initial years of reforms, FDI inflows into China steadily picked up speed in the latter part of the 1980s, averaging about US$3 billion. They began to skyrocket in the 1990s, averaging more than US$30 billion. Recent inflows account for close to 40% of all FDI inflows to all developing countries, making China the largest FDI recipient among all developing countries and second only to the United States.
The aim of this article is to go beyond mere economic factors such as market size and labor cost to arrive at a more nuanced understanding of the underlying forces that shape the patterns of FDI in China. My intent is theoretical; my method is empirical. The point of departure is the assumption that private investments, where current costs are incurred for future benefits, are not shaped by market forces alone. Being inherently intertemporal, investments are vulnerable to opportunistic behavior, and therefore require the presence, and better still, the improvement, of non-market institutions for the protection of property rights and reduction of transaction costs.¹

Applying the logic of neo-institutionalism,² my discussion begins with two types of institutions, both of which affect investment decisions. One is entirely informal, defined to include such conditions as cultural homogeneity, linguistic familiarity and kinship ties, or culture in short, whose mechanism to temper opportunistic behavior can be modeled by the iterative interactions of game theory.³ The other is formal, by which I mean formal rules, official policies and especially legislation, or the so-called “abstract

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² “Neo” as against the old prototype treatment by Karl Marx. Marx was also concerned about institutions, or “superstructure” in his word, but failed to take a step further to open up the “black box,” i.e., exactly how institutions affect economic activities. For a good theoretical review of neo-institutionalism, see Hodgson, Geoffrey, “The Approach of Institutional Economics,” Journal of Economic Literature Vol. XXXVI (March 1998), pp. 166-192; Rutherford, Malcolm C. Institutions in economics: The Old and the New Institutionalism. (New York: Cambridge University Press 1994).
³ Game theorists generally agree that cooperation is fostered when players engage in repeated games, so that a defector faces punishment in successive rounds. This principle is called by some as the folk theorem, which holds that “always defect” is not a unique equilibrium in the repeat-play prisoner’s dilemma, as it is in one-round games. See Fudenberg, D. and E. Maskin, “A folk-theorem in repeated games with discounting and with incomplete information,” Econometrica 54 (1986), pp. 533-554. Specific to culture, a close community, where personal interactions are frequent, can be modeled as repeated games. For how repeated games deter defection and foster cooperation, see also Axelrod, Robert, The Evolution of Cooperation (New York: Basic Books, 1984).
legal authority, whose function can reduce transaction costs associated with *ex ante* information and haggling, and *ex post* monitoring and policing. Although both types of institutions can facilitate transactions, their role in doing so is inversely related, and their respective capacity differs as well, with the formal type far better to facilitate large-scale industrial investments that often are complex, impersonal, intertemporal, and long in geographical distance. By contrast, culture, as a facilitator of investments, is limited by geographical scope, and anyway, works poorly in impersonal context, i.e., between strangers. This, in turn, according to Douglas North and others, explains why some societies have industrialized ahead of others.

In short, as Figure 1 illustrates, my analytical framework is based on a dynamic combination of the two extreme cases of institutions, which I think best reflects the reality of China during the reform era, a country in rapid transition, but nonetheless with all its cultural heritage instead of starting from *tabula sara*. Yet, in terms of formal institution building, starting almost from scratch in 1978, China has progressed considerably in developing the necessary legal and regulatory framework essential in a modern market economy. Specific to foreign investment, the body of laws now in place, municipal and international, though by no means perfect or even adequate, is impressive.

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5 In the most primitive forms, human transactions could and did occur even without language. As Herodotus tells us, sign language and arm’s length observation of the goods each served as a basis of these transactions. But the scope of such transactions was perforce extremely limited.
for a country that started with a most rudimentary FDI regulatory framework only two decades ago.

Figure 1: An illustrative dynamic institutional model

\[ Y = \text{Institutional capacity} \]
\[ X = \text{Temporal institutional building process} \]

To better appreciate investment behavior under such conditions of institutional developments, the above analytical framework will be used not only as a heuristic devise, but will also be expressed formally (i.e., formal modeling) to be tested systematically against the patterns of FDI in China both over space and time. My central hypothesis is that, in spite of all its imperfections, the institutional framework of China’s FDI regulatory regimes has gradually strengthened and improved over time, along a continuum from a command economy – where bureaucratic interference was the order of
the day – to a more rule-based market system. The evolutionary dynamics of that process have a systematic and positive effect on the variant patterns of FDI in China.

The rest of the paper is organized as follows. Part I outlines the process of China’s FDI regulatory framework as it evolves over the reform years. Part II develops a formal model designed to test institutional effects, both the formal and informal types, while controlling for economic factors. Part III concludes the paper by interpreting empirical results.

**Part I. The Evolution of FDI Policy and Law in China**

FDI is a recent phenomenon in the People’s Republic of China. In post-reform era China’s development strategy was autarkic and foreign investment was prohibited. Consequently when China started reforms in the late 1970s, it had little experience in how to encourage and regulate foreign investment. There was no law to serve as a viable institutional framework to govern FDI. Viewed in this historical context, what China has achieved in the reform era in developing an institutional framework to facilitate and regulate FDI is extraordinary.

Basically, there are two dimensions, policy and legislative, of China’s FDI regulatory framework. While the legislative dimension, i.e., investment laws, once put in place, is meant to be applied evenly nation-wide, FDI-related policies, e.g., fiscal concessions, and FDI project approval power, are often localized initially, and then expanded gradually into other areas over time. Over the reform years China’s FDI regulatory framework has undergone three identifiable periods, i.e., 1979-84, 1985-90, and thereafter, each with its distinct hallmarks. Below I outline the main building blocks
of that framework, providing an institutional backdrop for the formal model to be constructed next.

**The Initial Period (1979-84):** In the initial period China’s FDI regulatory framework was rudimentary. On the legislative dimension, although the EJV (equity joint venture) Law, China’s first foreign investment law, was promulgated as early as 1979, the law, with mere 15 articles, was sketchy in form and general in substance. Terms on many important issues, such as market access, taxation, foreign exchange, land use, and labor management, were either not mentioned at all or poorly defined, creating a cloud of uncertainty for foreign investors, especially those with little knowledge of China. The situation remained largely unimproved until the Detailed Implementation Act of the EJV Law was put in place in late 1983. Moreover, because the EJV Law was meant only to govern joint ventures, it did not apply to 100% foreign-owned subsidiaries, or wholly foreign-owned enterprises (WFOE).

On the policy front, in 1980 China established four Special Economic Zones (SEZ), i.e., Shantou, Shenzhen, Zhuhai and Xiamen. There foreign investors were allowed to operate under a different policy framework from the rest of the country. For one thing, while WFOE was allowed in SEZs, it was forbidden elsewhere. For another,

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8 The Implementation Act of EJV Law was clearly an effort by the Chinese government to clarify some of the critical operational issues that have been insufficiently specified by earlier legislation. It was both an augment to and a summary of the key elements of a dozen or so of laws affecting foreign investment issued during this period. These include the Income Tax Law of the PRC concerning Joint Ventures, the Registration and Management of Joint Ventures and the Regulations on Labor Management in Joint Ventures. Yuan, Jiashi and Yang Liping, eds., *Duiwai jingji maoyi xin guifan* [New policies and regulations regarding foreign economy and trade], (Shanghai: Fudan daxue chubanshe, 1995), p. 40.
tax rate for FDI firms in SEZs was 15%, which compared favorably with 30% elsewhere. In addition, a 10% local tax was readily waived upon application to the local authorities. Finally, FDI project approval power of SEZs was higher than other areas.

The Second Period (1985-90): During the second period China’s FDI regulatory framework apparently improved. With the promulgation of the WFOE Law in 1986, 100% foreign-owned subsidiaries became legal in China. Further, if the initial legal framework was prone to arbitrary interpretations because it lacked legal precision and specificity, things were looking up. For instance, a separate law was enacted in 1988 to further clarify the legal status of CJV (contractual joint ventures), another form of joint venture in China, which had until then governed by the EJV Law by analogy. Besides, a flurry of auxiliary rules and regulations came out, all trying to encourage FDI by clarifying operational issues ranging from tax incentives, land use to management autonomy.

On the policy front, after 1984, 14 major coastal cities began to offer similar, although by no means the same, preferential treatment to FDI hitherto available only in

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9 The 1979 EJV Law, while it has a 25% floor of foreign equity contribution, sets no upper ceilings. Thus, theoretically, foreign equity contribution in a joint venture can be anywhere between 25% and 99%.
11 Initially except for SEZs, local FDI project approval power was very restricted. Currently, provinces, SEZs, open coastal cities, and open interior provincial cities are all allowed to approve projects each up to US$30 million. But projects over US$30 million still have to be approved by the central government. Projects over US$100 by the State Council.
13 Most important of these were the Provisions for the Encouragement of Foreign Investment enacted by the State Council in 1986, commonly known as “the 22 articles.” They address such issues as preferential tax treatment for different types of FDI projects (technology- or export-oriented), foreign exchange, and management autonomy.
14 These are, from north to south, Dalian, Qinhuangdao, Tianjin, Yantai, Qingdao, Lianyugan, Nantong, Shanghai, Ningbo, Wenzhou, Fuzhou, Guangzhou, Zhanjiang, and Beihai.
the SEZs, and the whole Hainan island was made another SEZ during the second period. To ameliorate the problems that many foreign investors had experienced in balancing foreign exchange, institutional innovations, such as the so-called swap centers, were introduced in 1986. What is more, foreign access to domestic markets were relaxed. Whereas investors had been “encouraged” to market internationally; now they could sell “import-substitutes” domestically. All at the same time, local governments were given higher approval power of FDI projects. As a result, FDI project application procedures were expedited.

**The Third Period (the 1990s):** The Tiananmen incident of 1989 may have caused jitters among foreign investors. But liberalization of China’s FDI regulatory framework did not stop. On the policy front, in 1990 Shanghai’s Pudong Area was opened up to foreign investment with a plethora of special policy experiments. That

15 Unlike the SEZs which offered a low flat 15% tax rate to all FDI firms, in the open cities different tax benefits were granted to different FDI projects, depending largely on their location within the cities. Generally, the tax rate was 15% in the so-called Economic and Technological Development Zones (ETDZs), and 24% in the Old Urban Districts (OUDs). Otherwise, it was 30%.

16 A most publicized case involved the Beijing Jeep Corporation, a joint venture with American Motors Corporation (which later sold its equity interests to Chrysler). At one point, the firm was deeply mired in foreign exchange problems. It was only after a high-level lobbying effort made through a US envoy in Beijing that the Chinese government decided to provide additional foreign exchange to the venture. See Mann, Jim, *Beijing Jeep: the Short Unhappy Romance of American Business in China*, (New York: Simon and Schuster, 1989).


18 These terms reflect policy changes regarding foreign access to Chinese domestic markets. See the 1979 EJV Law and the “22 Articles.”

19 In Shanghai, for instance, the time of project approval process was reduced from at least 3 months in the early 1980s to 45 days at most in the latter part of the 1980s. *China Daily,* November 15, 1987.

20 For an extensive report on the Pudong area, see CERD Consultants Ltd., *Shanghai-Pudong Baogao* [Shanghai-Pudong report], Hong Kong, September 1991.
move was followed by significant reforms aimed at removing sectoral restrictions on FDI, such as in real estate, wholesaling and retailing, banking and insurance.\(^{21}\) In addition, in the wake of Deng Xiaoping’s now famous southern tour in early 1992, preferential policies to foreign investment were expanded from coast areas to all of the principal cities in the interior.\(^{22}\)

Policy liberalization was accompanied by progress on the legal front. Both the Detailed Implementation Acts of the WFOE Law and the CJV Law were now in place. Of particular significance was the 1990 Amendment to the 1979 EJV Law, which lifted the previous ban of foreigners from chairing the board of directors of joint ventures, and allowed joint ventures to continue without term limits. Also during this period China published a unified tax code in 1991, which effectively put an end to the discriminatory tax treatment of WFOEs vis-à-vis joint ventures.\(^{23}\) Accompanying all these developments was the continued effort to align the country’s investment framework with international standards.

By the early 1990s, China had entered a web of international guarantees regarding foreign investment. It joined both the New York Convention\(^{24}\) and the Washington Convention,\(^{25}\) as well as the Multinational Investment Guarantee Agency, thus committing itself to the principle of subrogation.\(^{26}\) To enhance its creditworthiness China

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\(^{23}\) The Foreign Investment Enterprise and Foreign Enterprise Income Tax Law of 1991 treats all forms of FDI equally for tax purposes. Previously, taxes for WFOEs were on a sliding scale from 20-40%.

\(^{24}\) i.e., the UN Convention on the Recognition and Enforcement of Arbitral Awards.

\(^{25}\) i.e., the Convention on the Settlement of Investment Disputes between States and the Nationals of Other States.

\(^{26}\) This refers to the principle whereby, in a dispute between a foreign private investor/company and the host government, the foreign government or an international organization acquires the
has also allowed foreigners to sit on its arbitration courts.\textsuperscript{27} By 1998 China’s BIT (bilateral investment protection treaties) list lengthened to more than six dozen countries. Moreover, China has vowed, where it is a party to international treaties, unless explicit reservations are made, treaty provisions override municipal provisions in resolving disputes.\textsuperscript{28}

In retrospect, even though the statement -- made in October 1989 by Ren Jianxin, the President of China’s Supreme Court -- that “our country is turning from one ruled mainly by government and party policies to one chiefly by laws”\textsuperscript{29} may be a far cry from the reality, it is by no means irrelevant if progress is what matters. Indeed, as empirical evidence shall demonstrate later in the article, the gradual improvement of China’s FDI institutional framework outlined here has a systematic and positive effect on the variant patterns of FDI in China.

\textbf{Part II: Linking Institution and Investment: A Model}

The principal task in this part is to develop a formal model which would allow us to examine institutional effects on investment behavior using multiple regression analysis. A critical advantage of multiple regression analysis is its ability to handle a large number of cases and to take into account the many factors that may be simultaneously responsible for an outcome under investigation. Since investment

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\textsuperscript{27} Roughly 1/3 of arbiters are foreigners. Cheng, Dejun, ed., \textit{International Arbitration in the People’s Republic of China} (Hong Kong: Butterworks Asia, 1995), p. 18.
\textsuperscript{28} Response of the Supreme People’s Court to Certain Questions Concerning the Application of the Foreign Economic Contract Law, issued on 19 October 1987, paragraph 8.
\end{flushleft}
decisions are usually based on a complex amalgam of both economic and institutional considerations, multiple regression comes in handy in controlling for critical economic variables, so that we are better equipped to judge if institutional factors indeed matter.

To illustrate the point, consider this example. Guangdong, a coastal province near Hong Kong, has attracted more FDI than Sichuan, a huge interior province of some 100 million people. Why? One hypothesis is that Guangdong attracts more FDI than Sichuan because its economic capacity -- measured by market size, labor cost and infrastructure -- is superior to Sichuan’s. Another hypothesis, which is apparently a cultural (or informal institutional) argument, is that Guangdong attracts more FDI because it enjoys closer cultural and linguistic affinities with overseas Chinese. After all, China gets much FDI from overseas Chinese investors.30 A third hypothesis is that since Guangdong offers more preferential policies, it therefore attracts more FDI. This last hypothesis in effect is a formal institutional argument.

While all these hypotheses are not necessarily mutually exclusive and indeed can be complementary, for us to examine institutional effects in this causal complexity, our analysis must proceed on ceteris paribus conditions. Indeed, it is precisely for this purpose that our analysis will be carried based on spatial modeling using cross-sectional data on 29 Chinese provinces.31 Further, since the development of China’s FDI regulatory framework is an evolutionary process, our spatial modeling, static by itself, has to have a dynamic and temporal element as well. Accordingly, I will employ what I

30 Currently about half of FDI comes from countries/regions that have a large overseas Chinese population.
31 They cover the country’s whole population of observations. Tibet is omitted for no data on FDI are available for it.
call periodized spatial modeling method (PS model). Specifically, the PS model is composed of three separate but identical spatial sub-models to match the three easily identifiable phrases in the evolution of China’s FDI regulatory framework outlined in Part II.

A note about analytical unit employed in our PS model is in order. Given that many of China’s preferential policies to FDI originate from specially designated cities such as SEZs, ideally our analytical unit should be at the city level. However, because data at that level are too fragmented to systematically compare across all three periods, our analysis has to remain at the provincial level, where systematic data are available. Accordingly, all the variables included in our PS model are broken down by 29 provinces, as well as by periods I, II, and III (i.e., 1979-84, 1985-90, and 1991-96). Further details on variable selection and operationalization follow next.

The Dependent Variable

The dependent variable in our PS model is the cumulative amount of FDI broken down by 29 provinces and by periods I, II and III. I use the actually realized amount of FDI in each of the 29 provinces broken down by three periods. Basic statistics of the dependent variable are summarized in Table 1. Take a look at the means and the standard

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32 Needless to say, the spatial model developed here is different, in meaning and content, from the spatial model by Anthony Downs about political elections. See Downs, Anthony. *An Economic Theory of Democracy* (New York: Harper and Row, 1957).

33 For semantic simplicity, I also use “province” to denote Beijing, Tianjin and Shanghai, three special municipalities that are empowered as a province and report directly to the central government.

34 Chinese statistics report both actual and contractual figures. I choose actual realized amount over contractual figures, because contractual figures refer to the projected amount of investment when the contract is signed. Very conceivably, some of that may never realize in reality.
deviations of the dependent variable. There is a great deal of variations in the dependent variable for all three periods.

Table 1: Basic statistics of the dependent variable (US$10,000)

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<tr>
<td>mean</td>
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<td>100007</td>
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<td>N</td>
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Sources: *China Foreign Economic Statistical Yearbook* (various issues) and *Almanac of China’s Foreign Trade and Economic Relations* (various issues).

The Independent Variables

Now consider the independent variables. At a general level of conceptualization, I consider three categories of independent variables: economic, cultural (informal institutional), and institutional (formal institutional) advantages. Conceivably each category can be broken down further to include variables of higher specificity. For instance, under the category of economic advantage, we can consider market size, labor cost and infrastructure as location-specific advantage in attracting FDI. However, since my interest is primarily to isolate the effect of institutional variables, I include economic advantage variables mainly as “control” or “setting” variables. Below I elaborate on each of the categories of independent variables, outlining key testable hypotheses at the end of this section.

Economic Advantage

One can of course think of many factors that can fall under the rubric of location-specific economic advantage, but an exhaustive tabulation seems neither fruitful nor
necessary for our purpose. In light of our analytical interest and data availability, I include market size, labor cost/skill and infrastructure. These variables, taken together, represent the economic advantage of each province in terms of its propensity to attract FDI.

**Market size:** There seems little doubt that market size is a key locational determinant of FDI. Among industrialized economies, American FDI is found to have a statistically significant correlation with the market size of EEC countries.\(^35\) Similarly, FDI from developed to developing countries are also found to be sensitive to the market size of host countries.\(^36\) In our case, according to a 1992 survey of 60 FDI firms in Beijing, market size (60%) surpassed labor cost (53%) as a locational consideration of investment, indicating that market size is a critical determinant of FDI.\(^37\)

To operationalize market size, I use GDP figures, a fairly standard way in the field. What may be unique in my case is that I use the initial GDP level of each province for each of the three periods. Specifically, I use 1979, 1985 and 1991 GDP figures to represent the market size of each province for each of the three periods respectively. The reason for doing so is both theoretical and technical. Theoretically, according to the Cobb-Douglas production function model, since output is a function of inputs including capital broadly construed,\(^38\) it may well be that the causal arrow between GDP (output)

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\(^37\) Zhen, Daoxian et al., “Beijingshi waishang touzi gongye qiye zai xianjieduan zuoyong he tiwei wenti de tantao,” (Beijing Jingji Weiyuan Hui, April 1992), p. 29.
\(^38\) Indeed, until more recently when Robert Lucas and Paul Romer of the University of Chicago has shifted gears to pay more attention to human skill and knowledge, capital formation was generally agreed to take the top priority role in economic development. Historically, technical progress was, according to Robert Solow of MIT, fairly steady and automatic, labor similarly
and FDI (input) runs from the latter to the former. Take China’s SEZs for instance. They all have risen from barren areas to dynamic industrial centers with a huge influx of FDI. To make our PS model structurally causal rather than merely covariational, technically, a simple way is to impose a “time order” condition, which helps establish the essential asymmetry in a causal relationship.³⁹

**Labor costs:** Labor costs as a location-specific economic advantage are easily understood in light of the overall cost significance of wages paid to workers as a production factor. In the US, where production tends to be highly technology- and capital-intensive, wages paid to workers as a share of production cost remain high, comprising about 25% of the value added for all manufacturing industries, or about 45% if wages paid to non-production workers are included.⁴⁰ In China, given that regional wage disparities have become more pronounced in the reform years,⁴¹ and that many FDI projects are labor-intensive, labor costs as a production factor tend to be accentuated. All else equal, a province that offers cheap labor is apparently better positioned to attract FDI.

Guided by similar considerations of causality regarding market size and FDI, I use the initial level of the average yearly wage of urban workers for each of the three

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periods as a first step to measure labor costs. Labor costs, to be sure, are more complicated than wage rates can measure. The quality aspect of labor is also important. Indeed, given the vast regional disparities in education and industrial development in China, nominal wages can be misleading, if labor skills are not taken seriously. Thus, to better reflect labor costs, I also include labor productivity. For this variable I use the total value of industrial output by industrial enterprises in each province divided by the total number of their workers.

**Infrastructure:** Infrastructure as a location-specific advantage, broadly construed, has both a “soft” and a “hard” facet. The soft side can include such services as accounting, legal and even recreational services, which in a way can be regarded as part and parcel of institutional development. The hard side, often known as the physical infrastructure, is what I am looking at here as an economic advantage of a particular province in terms of its capacity to attract FDI.

Physical infrastructure itself also covers a wide range of dimensions: from power supplies to public transportation, from post to telecommunications, from railroads to highways, from harbors to airports, and from residential housing to office buildings. Because all these dimensions are relevant to business operations, it is appropriate that we include infrastructure as a location-specific economic advantage. However, since there is no easy way to capture all the dimensions of infrastructure, for this study I settle on a readily available figure as a proxy of physical infrastructure. The figure represents the

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42 I did not use average wage rates in a province, because very few FDI projects are agriculture-related, so that wages for urban workers are a better measure.
output value of transportation, postal and telecommunications services in each province.\textsuperscript{43}

**Cultural Advantage**

As discussed earlier, informal institution, or culture, as location-specific advantage, refers to such conditions as cultural homogeneity, linguistic familiarity, and kinship ties. Theoretically, that culture facilitates investment can be explained from at least two angles. First, to the extent that culture is understood as a language-based framework for encoding and interpreting the information that our senses present to our brain,\textsuperscript{44} culture can reduce information costs. Second, to the extent that culture is viewed as a rich and tightly-knit social network, culture can mitigate against opportunistic behavior as an iterated game would illustrate.\textsuperscript{45} Empirically, several studies on Japanese FDI suggest that cultural distance is a negative predictor of FDI.\textsuperscript{46}

*Coding of cultural variable:* Cultural variable as location-specific advantage does not exist in standard format and it has to be created. My coding of cultural variable is guided by three considerations.

First, China is a huge country and it is not a cultural monolithic. Given that Chinese overseas business communities are dominated by Guangdong, Shanghai, and

\textsuperscript{43} Economic advantage data used here are from *China Regional Economy: A Profile of 17 Years of Reform and Opening Up.* (Beijing: China Statistics Press, 1996).


Fujian natives whose dialects are so distinct as to be hardly comprehensible to each other, I take Guangdong, Shanghai and Fujian as three cultural poles, from which I measure “cultural distance” of each province vis-à-vis Chinese overseas investors. Specifically, cultural distance is measured in kilometers from each provincial capital to each of the three poles and the shortest of the three measurements is taken as the initial valid value.\(^47\)

Second, in view that coastal provinces are in greater contact with the outside world than interior ones, and that culture is often a function of the frequency of interactions between people, coastal provinces, as a group, should be treated differently from interior ones. For that reason, the initial value of cultural distance of all interior provinces are then weighted by a value of 2. This way, all the coastal provinces are distinguished from the interior ones.

Third, the variable thus created are meant to be a proxy for cultural homogeneity, linguistic familiarity and kinship ties each province enjoys vis-à-vis overseas Chinese business communities. But since these attributes do not change appreciably in the short run, I use the same value of cultural distance for all the three periods that our PS model covers.

**Institutional Advantage**

As discussed earlier, China’s FDI regulatory framework, or the formal institution, has both a policy and legislative dimension, which needs to be treated differently, because the way they vary differs. The legislative dimension has only a temporal variation, without a spatial one. Investment laws promulgated by the central government,

\(^{47}\) Hsieh, Chiao-min and Jean Kan Hsieh, *China: A Provincial Atlas* (New York: Simon and
such as the EJV, CJV, WFOE laws and their auxiliary rules, are developed over time and are meant to be applied evenly nation-wide. As such, they do not constitute salient institutional advantage that is location-specific. This being the case, their effects are not amenable to spatial modeling directly. However, as mentioned earlier, because the relevance of the formal and informal types of institution to facilitate investments is inversely related, we can therefore infer the effect of formal institution from that of informal one. To the extent we argue the formal institution becomes stronger, we would expect cultural effects become weaker, and vice versa.

Unlike the legislative dimension, the policy dimension of China’s FDI regulatory framework displays attributes that are spatial by designs and therefore constitute location-specific advantage. Recall that many special policies, such as preferential tax treatment and high project approval power are not applied evenly across China. They thus constitute location-specific advantage, even though over time they become somewhat equalized, as more regions are authorized to offer similar preferential treatment to foreign investors. Since policy advantage covers a wide range of areas -- from fiscal concessions to priority status to host FDI projects in sectors not open everywhere – it is reasonable to expect that they would increase a province’s chance to host FDI.

*Coding of policy variable:* Like cultural variable, policy variable does not exist in standard format and it has to be created. As I discussed in Part I, preferential policies exist in different degrees and are often isolated in the geographical confines of cities. But since our analytic unit has to remain at the provincial level given FDI data constraints, it

is difficult to keep track of policy advantages in ways that dovetail with other provincial data. This being the case, it would seem appropriate that we use categorical, rather than continuous, variable. Accordingly, I collapse policy advantage into a 3-tiered hierarchy in recognition of the unique institutional arrangements across different regions in China and assign values from 3-1 to each province, depending on the overall level of preferential policies available there. My coding follows these guidelines:

First, I assign a value of 3 to Guangdong, Fujian and Hainan, provinces containing SEZs. These provinces sit on the top of the 3-tiered hierarchy. At this level, policy advantage is most pronounced. Local governments there enjoy high project approval power and offer generous fiscal concessions to FDI. Further, they are often the first ones to host FDI projects in sectors yet to be opened in the rest of China.

Second, I assign a value of 2 to the provinces that contain designated open cities. These provinces sit in the middle of the 3-tiered hierarchy. At this level, policy advantage is a mixed bag. For instance, in the confines of ETDZ (economic and technology development zones), a low tax rate of 15% is available for FDI firms. Yet in OUD (old urban districts), the tax rate is 24%, which is less favorable than in SEZs, but better than the 30% rate applicable generally in the rest of China.

Finally, I assign a value of 1 to the rest of the provinces that until recently compare most poorly in terms of project approval power and preferential tax treatment to foreign investors. It must be emphasized, however, that over time the 3-tiered hierarchy have gradually become equalized, as many preferential policies originally available only in the SEZs gradually extend to other areas.
Model Specifications and Testable Hypotheses:

As I mentioned earlier, our PS model covers both space and time. Expressed formally, it takes the following form:

\[
\text{FDI}_{x(I, II, III)} = \alpha_0 (I, II, III) + \alpha_1 (I, II, III) \times \text{POLICY}_{x(I, II, III)} + \\
\alpha_2 (I, II, III) \times \text{CULTURE}_{x(I, II, III)} + \\
\alpha_3 (I, II, III) \times \text{MARKET}_{x(I, II, III)} + \\
\alpha_4 (I, II, III) \times \text{WAGE}_{x(I, II, III)} + \\
\alpha_5 (I, II, III) \times \text{PRODUCTIVITY}_{x(I, II, III)} + \\
\alpha_6 (I, II, III) \times \text{INFRASTRUCTURE}_{x(I, II, III)}
\]

where:

- \(I\) refers to the initial period (1979-84), \(II\) the second period (1985-90), and \(III\) the third period (1991-96).
- \(\text{FDI}_{x(I, II, III)}\) is the logged value of the realized amount of FDI in province \(x\) and in periods \(I, II,\) or \(III\).
- \(\text{POLICY}_{x(I, II, III)}\) is the categorical values, form 3-1, indicating the policy advantage enjoyed by province \(x\) and in periods \(I, II\) or \(III\).
- \(\text{CULTURE}_{x(I, II, III)}\) is the logged value of “cultural distance” of province \(x\), vis-à-vis overseas Chinese business communities, in periods \(I, II\) or \(III\).
- \(\text{MARKET}_{x(I, II, III)}\) is the logged value of the GDP level of province \(x\) and in periods \(I, II\) or \(III\).
- \(\text{WAGE}_{x(I, II, III)}\) is the logged value of average yearly wage rate of urban workers in province \(x\) and in periods \(I, II\) or \(III\).
- \(\text{PRODUCTIVITY}_{x(I, II, III)}\) is the logged value of average labor productivity of urban enterprise workers in province \(x\) and in periods \(I, II\) or \(III\).
- INFRASTRUCTURE \(_x(\text{I, II, III})\) is the logged value of the output value of transportation, post and telecommunications in province \(x\) and in periods \(I, II\) or \(III\).

<table>
<thead>
<tr>
<th>VARIABLE NAMES</th>
<th>PERIOD I 1979-84</th>
<th>PERIOD II 1985-90</th>
<th>PERIOD III 1991-96</th>
</tr>
</thead>
<tbody>
<tr>
<td>FDI</td>
<td>mean 1.382</td>
<td>std.dev. 1.556</td>
<td>min 0</td>
</tr>
<tr>
<td></td>
<td>mean 3.845</td>
<td>std.dev. 1.163</td>
<td>min 0</td>
</tr>
<tr>
<td></td>
<td>mean 5.221</td>
<td>std.dev. 0.778</td>
<td>min 3.296</td>
</tr>
<tr>
<td>POLICY*</td>
<td>mean 1.551</td>
<td>std.dev. 0.686</td>
<td>min 1</td>
</tr>
<tr>
<td></td>
<td>mean 1.550</td>
<td>std.dev. 0.687</td>
<td>min 1</td>
</tr>
<tr>
<td></td>
<td>mean 1.550</td>
<td>std.dev. 0.687</td>
<td>min 1</td>
</tr>
<tr>
<td>CULTURAL DISTANCE</td>
<td>mean 2.812</td>
<td>std.dev. 1.028</td>
<td>min 0</td>
</tr>
<tr>
<td></td>
<td>mean 2.812</td>
<td>std.dev. 1.028</td>
<td>min 0</td>
</tr>
<tr>
<td></td>
<td>mean 2.812</td>
<td>std.dev. 1.028</td>
<td>min 0</td>
</tr>
<tr>
<td>MARKET</td>
<td>mean 2.015</td>
<td>std.dev. 0.367</td>
<td>min 1.146</td>
</tr>
<tr>
<td></td>
<td>mean 2.356</td>
<td>std.dev. 0.363</td>
<td>min 1.477</td>
</tr>
<tr>
<td></td>
<td>mean 2.743</td>
<td>std.dev. 0.365</td>
<td>min 1.851</td>
</tr>
<tr>
<td>WAGE</td>
<td>mean 2.832</td>
<td>std.dev. 0.051</td>
<td>min 2.757</td>
</tr>
<tr>
<td></td>
<td>mean 3.061</td>
<td>std.dev. 0.055</td>
<td>min 2.977</td>
</tr>
<tr>
<td></td>
<td>mean 3.367</td>
<td>std.dev. 0.064</td>
<td>min 3.265</td>
</tr>
<tr>
<td>PRODUCTIVITY</td>
<td>mean -.071</td>
<td>std.dev. 0.145</td>
<td>min -.238</td>
</tr>
<tr>
<td></td>
<td>mean 0.089</td>
<td>std.dev. 0.104</td>
<td>min -.054</td>
</tr>
<tr>
<td></td>
<td>mean 3.367</td>
<td>std.dev. 0.064</td>
<td>min 0.257</td>
</tr>
<tr>
<td>INFRASTRUCTURE</td>
<td>mean 1.217</td>
<td>std.dev. 0.304</td>
<td>min 0.833</td>
</tr>
<tr>
<td></td>
<td>mean 1.620</td>
<td>std.dev. 0.255</td>
<td>min 1.279</td>
</tr>
<tr>
<td></td>
<td>mean 2.059</td>
<td>std.dev. 0.246</td>
<td>min 1.631</td>
</tr>
</tbody>
</table>
Note: * This variable takes categorical values, 3, 2, 1, that are not logged.
Sources: Data on FDI are from China Foreign Economic Statistical Year Book (various issues), and Almanac of China’s Foreign Trade and Economic Relations (various issues). Other economic data are based on China: A Provincial Atlas; China Regional Economy: A Profile of 17 Years of Reform and Opening Up. Cultural distance is measured by consulting Hsieh, Chiao-min and Jean Kan Hsieh, China: A Provincial Atlas (New York: Simon and Schuster MacMillan, 1995).

Basic statistics of the variables included in our PS model are contained in Table 2. Key testable hypotheses are presented as follows.

Hypothesis 1.1: $\alpha_{1(I)} > 0; \alpha_{2(I)} < 0; \alpha_{3(I)}, \alpha_{4(I)}, \alpha_{5(I)}, \text{ or } \alpha_{6(I)} = (?)$

Interpretation: During period I, a province’s level of FDI is expected to be positively correlated with its policy advantage and negatively correlated with its cultural distance. However, given the highly restrictive and immature nature of China’s FDI regulatory framework in this period, we would not expect that the level of FDI in a province is all properly, i.e., with “correct” signs, correlated with its economic advantage variables. The reason is that, even if investors went to China looking for market size and cheap labor, etc., because the formal institutional framework was weak at this time, they would not have the adequate freedom (i.e., from excessive red tape, and/or from worries about institutional protection of their investment) to scour the country to invest in ways that make most sense economically. Market size for foreign investors means market access, which in turn is a function of institutional arrangements. Until China’s command economy has sufficiently moved to a rule-based market system, we would not expect a close correlation between FDI and market size, and for that matter, other economic advantage variables.
Hypothesis 1.2: $\alpha_{1(I)} > 0; \alpha_{2(I)} < 0; \alpha_{3(I)} > 0(?); \alpha_{4(I)} < 0(?); \alpha_{5(I)} > 0(?); \alpha_{6(I)} > 0(?)$

Interpretation: During period II, a province’s level of FDI is expected to be positively correlated with its policy advantage and negatively related with the cultural distance variable. Further, it is expected, albeit without great confidence and thence question marks, that the level of FDI is also properly, i.e., with “right signs” correlated with its economic advantage variables. The reason is that, if indeed, as I have argued, China’s FDI framework became better defined, thus more predictive and less arbitrary, we would expect that investors had a higher degree of freedom, relative to period I, to go up and down China to invest in ways that make more sense economically. Statistically, this would mean a stronger association between FDI and economic advantage variables.

Hypothesis 1.3: $\alpha_{1(III)} > 0; \alpha_{2(III)} < 0; \alpha_{3(III)} > 0; \alpha_{4(III)} < 0; \alpha_{5(III)} > 0; \alpha_{6(III)} > 0$

Interpretation: During period III, a province’s level of FDI is expected to be positively correlated with its policy advantage and negatively related with the cultural distance variable. Further, it is predicted that the level of FDI would be properly correlated with all the economic advantage variables. The reason is that China’s FDI framework has now undergone significant liberalization, and all the key investment laws, i.e., EJV, CJV and WFOE laws, together with their detailed implementation acts, are now in place. In addition, China has entered into a rather sophisticated web of international guarantees, both bilateral and multilateral, regarding foreign investment. We would thus expect that investors now enjoy a still higher degree of freedom, relative to period II, to put their investment wherever it makes most sense economically.

Hypothesis 2.1: $\alpha_{1(I)} > \alpha_{1(II)} > \alpha_{1(III)}$
Interpretation: It is predicted that *across the three periods* the effect of a province’s policy advantage on the level of FDI should decrease over time. The reason is that, over the reform years special policies such as those originally available only in the SEZs gradually expanded into the coastal areas in the latter part of the 1980s and then into the interior regions of the country in the 1990s. As special policies become less special over time, their effect is expected to get equalized.

**Hypothesis 2.2:** $\alpha_{2(I)} > \alpha_{2(II)} > \alpha_{2(III)}$

Interpretation: To the extent that I argue that China’s FDI regulatory framework has improved significantly over the years, it is expected that the effect of cultural variable would decrease *across the three periods*. The reason is that if I am correct in arguing that China’s formal institutional framework has become more transparent, better defined, and less arbitrary, foreign investors should have a less need to rely on informal means such as personal friends and kinship ties for information and/or to hedge against investment risks.

**Hypothesis 2.3:** $\alpha_{3(I)} < \alpha_{3(II)} < \alpha_{3(III)}$

Interpretation: It is expected that *across the three periods* the effect of market size on a province’s level of FDI should increase. Because as an ever-widening share of China’s domestic markets have been gradually opened up to FDI, foreign investors are increasingly able to pursue their strategies of exploiting huge domestic markets of China. Consequently we would expect a growing correlation between FDI level and market size.

**Part III: Empirical Evidence**

Table 3 reports the basic OLS multiple regression results of our PS model. Since a log-linear relationship is assumed between a province’s level of FDI and its explanatory
variables for each of the three periods that our PS model covers, all the $\alpha$ coefficient estimates reported here are thus elasticity measurements. Discussions of regression results, at times supported by auxiliary models, follow next and will proceed in the order of the 6 key hypotheses outlined in Part II.

Table 3: Empirical results of multiple regression analysis

<table>
<thead>
<tr>
<th></th>
<th>COLUMN ONE PERIOD I (79-84)</th>
<th>COLUMN TWO PERIOD II (85-90)</th>
<th>COLUMN THREE PERIOD III (91-96)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Policy</td>
<td>1.10** (2.05)</td>
<td>0.69** (2.36)</td>
<td>0.49** (2.49)</td>
</tr>
<tr>
<td>Cultural distance</td>
<td>-0.53** (-1.63)</td>
<td>-0.10 (-0.24)</td>
<td>-0.01 (-0.10)</td>
</tr>
<tr>
<td>Market</td>
<td>0.07 (0.08)</td>
<td>0.99** (2.21)</td>
<td>1.08** (5.21)</td>
</tr>
<tr>
<td>Wage</td>
<td>5.01 (0.66)</td>
<td>-3.90* (-1.40)</td>
<td>-3.16** (-1.81)</td>
</tr>
<tr>
<td>Productivity</td>
<td>-0.12 (-0.06)</td>
<td>3.24** (2.35)</td>
<td>2.25** (1.70)</td>
</tr>
<tr>
<td>Infrastructure</td>
<td>0.04 (0.03)</td>
<td>-0.38 (-0.72)</td>
<td>0.26 (0.10)</td>
</tr>
<tr>
<td>Constant</td>
<td>-13.19 (-0.61)</td>
<td>12.76 (1.35)</td>
<td>11.14** (1.76)</td>
</tr>
</tbody>
</table>

|                      | 0.57                        | 0.72                         | 0.85                          |
| Adjusted R²          | 0.46                        | 0.65                         | 0.81                          |
| F (6, 22)            | 4.92                        | 9.55                         | 20.89                         |
| Prob > F             | 0.002                       | 0.000                        | 0.000                         |
| Root MSE             | 1.14                        | 0.69                         | 0.33                          |
| # of observations    | 29                          | 29                           | 29                            |

T-statistics are in parentheses.

*** Statistically significant at 1% confidence level
** Statistically significant at 5% confidence level
* Statistically significant at 10% confidence level

**Hypothesis 1.1:** Take a look first at the statistic evidence in Column One for period I, in Table 3. As expected, the coefficient estimates of both policy and culture
variables bear the predicted signs. Moreover, they are statistically significant. By contrast, but by no means unexpected, the economic advantage variables yield mixed results. The signs of wage and labor productivity are clearly “wrong.” On the other hand, the coefficient estimates of market size and infrastructure, although carrying “correct” signs, are statistically insignificant.

These results show that in the initial period what really counted for a province’s level of FDI was only policy and cultural advantages. Economic advantage variables were poor, if not totally irrelevant, predictors. Indeed, when the same regression (for period I) is run without all the economic advantage variables, the model’s explanatory power, as indicated by the adjusted $R^2$, actually increases from 0.46 to 0.51 (compare Tables 3 and 4). All the while the coefficient estimates of policy and cultural advantage variables remained largely unchanged (see Table 4).

Table 4: Regression results of auxiliary model for period I without economic advantage variables.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Estimate</th>
<th>T-statistic</th>
</tr>
</thead>
<tbody>
<tr>
<td>POLICY</td>
<td>1.00*</td>
<td>(2.30)</td>
</tr>
<tr>
<td>CULTURE</td>
<td>-0.53*</td>
<td>(-1.83)</td>
</tr>
<tr>
<td>CONSTANT</td>
<td>1.36</td>
<td>(0.98)</td>
</tr>
<tr>
<td>$R^2$</td>
<td>0.54</td>
<td></td>
</tr>
<tr>
<td>Adjusted $R^2$</td>
<td>0.51</td>
<td></td>
</tr>
<tr>
<td>$F$ (2, 26)</td>
<td>15.82</td>
<td></td>
</tr>
<tr>
<td>Prob &gt; $F$</td>
<td>0.00</td>
<td></td>
</tr>
<tr>
<td># of observations</td>
<td>29</td>
<td></td>
</tr>
</tbody>
</table>

T-statistics are in parentheses.
** Statistically significant at the 5% level.
* Statistically significant at the 10% level.

These empirical results are not surprising, given that the Chinese economy at the time was still very much a command system; and its FDI regulatory framework was in rudimentary form. An economy heavily controlled by central planners meant that, as a practical matter, foreign investors, even when they so desired, were not allowed to search
up and down the country in pursuit of cheap labor and big market. This explains why the economic advantage variables are poor predictors of FDI during the initial period.

What is more, given the incipient nature of China’s FDI regulatory framework, it is only “rational” for investors, many of them overseas Chinese, to cluster in areas where they were culturally familiar, so that they could count on informal means, such as kinship ties, to reduce transaction costs. Little wonder that during the initial period, a very high portion of FDI headed for Guangdong, Shanghai and Fujian, the three provinces that enjoy the closest cultural ties with overseas Chinese business communities.48

**Hypothesis 1.2**: Turn next to the statistics in Column Two for period II. It is clear that Hypothesis 1.2 is largely borne out by the empirical results here. As expected, all variables, save infrastructure, show the “correct” signs. Note, in particular, the coefficient estimates of the economic advantage variables -- market size, wage rate and labor productivity. Not only do they carry the “correct” signs, they are also statistically significant. Substantively, these results indicate that China during this period held out a better investment environment. Recall that not only were two additional landmark laws on alternative modes of investment (i.e., WFOE and CJV) promulgated in 1986 and 1988, special policies that had existed only in the SEZs began to be available along much of China’s coast areas after 1984.

Worth emphasizing in this context is the fact that restrictions on foreign access to domestic market and labor began to be relaxed. Instead of “encouraging foreign investors

48 Their combined portion is about 32% of the country’s total measured in realized amount of FDI. Individually, it is about 12%, 10% and 10% for Guangdong, Fujian, and Shanghai respectively.
to market their products outside of China,” as the 1979 law stipulated, China now allowed them to sell their products domestically if their products “are urgently needed or are import substitutes.” Efforts were also made to improve foreign access to domestic labor – witness the publication in 1986 of the Provisions Concerning Autonomous Rights of Personnel Employment, and Salary, Insurance and Welfare Expenses in Foreign Invested Enterprises. Seen in this light, the statistical evidence reported here points to the efficacy of the efforts thus rendered.

Now that investors were given a better chance to pursue cheap labor and big market in China, it is only logical that economic advantage variables become more critical in predicting FDI. Accordingly, when the same regression (for period II) is run without all the economic variables, the model’s explanatory power, as indicated by the adjusted $R^2$, decreases from 0.65 to 0.36 (compare Tables 3 and 5), indicating the effect of policy and cultural variables, while still relevant, became less so compared to period I. By contrast, the economic advantage variables now really count.

Table 5: Regression results of auxiliary model for period II without economic advantage variables.

<table>
<thead>
<tr>
<th>POLICY</th>
<th>0.78** (2.08)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CULTURE</td>
<td>-0.25 (-1.00)</td>
</tr>
<tr>
<td>CONSTANT</td>
<td>3.36 (2.82)</td>
</tr>
<tr>
<td>$R^2$</td>
<td>0.41</td>
</tr>
<tr>
<td>Adjusted $R^2$</td>
<td>0.36</td>
</tr>
<tr>
<td>$F$ (2, 26)</td>
<td>8.91</td>
</tr>
</tbody>
</table>

49 Article 9 of the 1979 EJV Law.
51 By the Ministry of Labor and Personnel in November 1986. The autonomy regarding employment for FDI firms was also emphasized in many subsequent legislative works, e.g., the “22 articles,” and “Opinions on Further Insuring the Autonomy of Personnel Management in Foreign Invested Enterprises,” issued in 1988. See also Du Xianzhong, ed., Zhongguo waishang touzi qiye guanli [The management of foreign-invested enterprises in China], (Wuhan University Press, 1994), pp. 251-52.
T-statistics are in parentheses.
** Statistically significant at the 5% level.

**Hypothesis 1.3:** The statistics contained in Column Three that covers period III strongly support Hypothesis 1.3. Now all the variables bear “correct” signs. Note, in particular, when compared to period II, the coefficients of market and wage variables for this period increase measurably in terms of statistical significance, with the t-statistics advancing from 2.21 to 5.21 for market, and from 1.40 to 1.71 for wage. These results are quite in keeping with my documentation in Part I that as China’s FDI regulatory framework became further liberalized in the early 1990s, especially after Deng Xiaoping’s famous southern trip in 1992.

Now with fewer bureaucratic impediments standing in the way of foreign access to China’s domestic markets, the effect of the economic advantage variables -- relative to that of policy and cultural variables -- become more pronounced. Accordingly, when the same regression (for period III) is run without all the economic variables, the model’s explanatory power, as indicated by the adjusted $\hat{R}^2$, decreases very significantly from 0.81 to 0.50 (compare Tables 3 and 6). Note, also, the model for period III has greater explanatory power, compared to that for period II (0.81 as against 0.65, adjusted $\hat{R}^2$). This suggests strongly that investors now enjoy a much higher degree of freedom to scour up and down China to invest in ways that make most sense economically.

Table 6: Regression results of auxiliary model for period III without economic advantage variables.

<table>
<thead>
<tr>
<th>POLICY</th>
<th>0.55** (2.31)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CULTURE</td>
<td>-0.18 (-1.06)</td>
</tr>
<tr>
<td>CONSTANT</td>
<td>4.87 (5.89)</td>
</tr>
<tr>
<td>$\hat{R}^2$</td>
<td>0.54</td>
</tr>
</tbody>
</table>
Hypothesis 2.1; 2.2 and 2.3: Now look at the statistics contained in Table 3 again, but this time across the three consecutive periods. If we take Period I as a benchmark with which to compare later periods II and III, the direction and size of the coefficient estimates of policy, culture and market all progress in much the same way that is expected by Hypothesis 2.1; 2.2; and 2.3.

Specifically, the coefficients of policy advantage variable decrease very steadily over time, from 1.10 to 0.69 to 0.49, even though they remain statistically significant pretty constantly at 5% confidence level. Substantively, these results lend support to the argument that while special policies make a difference in attracting FDI, over time they become less important. The reason is obvious. As the interior provinces also began to offer similar policies that were originally available only in the SEZs, the effect of policy advantage across different regions in China becomes increasingly equalized. In the case of culture, not only does the coefficient shrink from -0.53 to -0.10 to -0.01, it becomes statistically less significant over time, with the t-statistics dwindling from -1.63 to -0.24 to -0.10. These results validate the hypothesis that as the formal institution of China’s FDI regulatory framework matures over years, investors have a less need to count on informal cultural means, such as linguistic familiarities, personal friends and kinship ties.

By contrast, the coefficient of market size grows across the three periods, from 0.07 to 0.99 to 1.08. More impressive still, their statistical significance improve dramatically, with t-statistics moving up from 0.08 to 2.21 to 5.21. These results confirm
that for foreign investors, what matters is market access, which in turn is a function of institutional arrangements. This is especially true in a transitional economy like China’s. As bureaucratic intervention gradually recedes from the market place over time, it is only natural that we see a growing correlation between FDI and market size. Foreign investors have gradually been allowed more market access!

A technical note. As a precaution against the problem of multicollinearity among independent variables that can potentially be so severe as to distort the signs of coefficient into wrong directions, thus perverting our judgment, regression diagnostic tests are in order. For that, I have run regressions of FDI on policy, culture, and market, individually and separately across the three periods.

The test results are reported in Table 7. As these results show, even though on average the sizes of coefficient of each individual variable, when tested in isolation across the three periods, increase tangibly, they nevertheless do so in a consistent fashion. In other words, there is no change in the direction of signs. Looked at across the three periods, the effect of policy advantage variable continues to decrease over time; the effect of culture variable continues to dwindle over time; and the effect of market size variable continue to grow over time.

Table 7: Results of regression diagnostic tests.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>POLICY</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R²</td>
<td>0.49</td>
<td>0.48</td>
<td>0.52</td>
</tr>
<tr>
<td>Adjusted R²</td>
<td>0.47</td>
<td>0.46</td>
<td>0.50</td>
</tr>
<tr>
<td>F(1, 27)</td>
<td>25.99</td>
<td>26.82</td>
<td>29.60</td>
</tr>
<tr>
<td>Prob &gt; F</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Observations</td>
<td>29</td>
<td>29</td>
<td>29</td>
</tr>
<tr>
<td>CULTURE</td>
<td>-1.02 *** (-4.76)</td>
<td>-0.63 *** (-3.60)</td>
<td>-0.50 *** (-3.48)</td>
</tr>
<tr>
<td></td>
<td>Column 1</td>
<td>Column 2</td>
<td>Column 3</td>
</tr>
<tr>
<td>------------------</td>
<td>----------</td>
<td>----------</td>
<td>----------</td>
</tr>
<tr>
<td>R²</td>
<td>0.45</td>
<td>0.40</td>
<td>0.44</td>
</tr>
<tr>
<td>Adjusted R²</td>
<td>0.43</td>
<td>0.38</td>
<td>0.42</td>
</tr>
<tr>
<td>F(1, 27)</td>
<td>22.72</td>
<td>22.02</td>
<td>21.99</td>
</tr>
<tr>
<td>Prob &gt; F</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Observations</td>
<td>29</td>
<td>29</td>
<td>29</td>
</tr>
<tr>
<td>MARKET R²</td>
<td>0.43</td>
<td>1.50 ***</td>
<td>1.92 ***</td>
</tr>
<tr>
<td>MARKET Adjusted R²</td>
<td>(0.53)</td>
<td>(3.83)</td>
<td>(5.33)</td>
</tr>
<tr>
<td>MARKET F(1, 27)</td>
<td>0.28</td>
<td>14.67</td>
<td>28.25</td>
</tr>
<tr>
<td>MARKET Prob &gt; F</td>
<td>0.58</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>MARKET Observations</td>
<td>29</td>
<td>29</td>
<td>29</td>
</tr>
</tbody>
</table>

T-statistics are in parentheses.
*** Statistically significant at the 1% level.

As such, they all come to validate the central hypothesis of this article: That is, as China’s FDI regulatory framework has liberalized and strengthened over the reform years, along a continuum from a command to a rule-based market system, cultural advantage, while still relevant, become less important; policy advantage, while still a plus, become less potent; domestic markets, while in many ways still restricted, are more accessible to foreign investors.