Institutions and Foreign Direct Investment: China *versus* the Rest of the World

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Summary. — Weak institutions impede foreign direction investment (FDI), yet China attracts massive FDI despite global media spotlighting its institutional infirmities. Standard institutional quality variables poorly track rapid transformations, like China' regime shift following Den Xiaoping's 1993 Southern Tour. Economy track record usefully augments these variables in such cases. Cross-country regressions controlling for institutional quality and economy track record reveal China's FDI inflow unexceptional. Rather, China's FDI inundation resembles analogous post-reform East Bloc events. Arguments that China's FDI inflow is inefficiently large because weak institutions deter domestic investment while special initiatives attract FDI are thus either unsupported or not unique to China. © 2008 Elsevier Ltd. All rights reserved.

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1. INTRODUCTION

China now receives more foreign capital in the form of foreign direct investment (FDI) than any other country, despite ongoing, and sometimes vociferous criticism of the quality of its government in the foreign media. This is curious because FDI involves much irreversible fixed investment, which is sensitive to investors' perceptions of public policies and property rights. Does the quality of China's government explain its FDI allure, or is China's inflow of FDI in some sense "exceptional" given the quality of its government?

This question has broad implications. The development literature shows financial development, investment, and thus growth depending critically on the construction and maintenance of sound institutions—fundamental tasks of government and defining norms of "good government." FDI can be less affected by institutional deficiencies than domestic investment if foreign investors have better access to capital, or backing from their home governments in protecting their property rights. In such situations, FDI can serve a critical development role. Of course, arguments to the contrary are also plausible, for foreign investors can confront information asymmetries and discriminatory sentiments. Hence this paper has multiple objectives. On a broad level, it explores the relationships between various aspects of government quality and inward FDI. On a country-specific level, it explores, within the context of such relationships, possible differences between FDI inflows to China and other countries at similar levels of development (as captured by *per capita* GDP).

We first show how FDI inflows correlate across countries with three key dimensions of "good government." These are

1. *The general quality of government.* To measure this, we use appraisals of official respect for private property rights and freedom from official corruption.
2. *The strength of constraints on executive power.* Here again we use appraisals, but focusing specifically on the freedom of action the country's institutions accord its head of government. Intuitively, constraints on executive power prevent a country's head of government from ruling by decree, arbitrarily nullifying or modifying contracts or property rights, and capriciously altering the rules of the economic game in other ways. If executive actions hinge on legislatures being consulted and court rulings being sought amid an open competition for the right to govern, a country's future policy direction is less likely to be arbitrary and opportunistic.
3. *The government's track record.* A government that has overseen more impressive economic growth in the past is likely to draw more FDI than other countries with similarly

appraised institutions. We therefore consider past economic growth as an implicit measure of government track record.

Within this framework, we show that FDI inflow correlates with a country's economic growth track record, both its magnitude and stability, and with its general institutional quality, as captured by the "rule of law." We find no China effect, for China dummies are insignificant—as both intercept adjusters and slop shifters for institutional quality variables. We confirm an FDI inflow surge into China following a marked regime change in 1993, but the effect readily fades with time, and a similar pattern is evident in Eastern Bloc transition economies. Any apparently anomalous "China effect" is readily explained by conditioning FDI inflow on track record in sustaining past growth, as well as obvious controls for log population size, adults as a fraction of total population, trade over GDP, exchange rates, and time dummies.

We surmise three conclusions from our findings:

1. High quality government attracts FDI. The most significant such qualities are respect for the "rule of law" and a solid track record in overseeing strong and stable economic growth. We find that "limits" on "executive power" matter less clearly, perhaps reflecting difficulties in quantifying that variable or an unstable relationship with FDI.

2. China's large FDI inflow is not mysterious. Its high level is concordant with its growth track record and its size, demographic appeal, openness, *etc.* The institutional variables are not important in explaining China's high FDI inflow, because China's institutions are rated only slightly higher than those of other countries at similar *per capita* GDP levels.

3. These results suggest that China's FDI inflow is not abnormally large. In particular, it does not accord with China's pro-inward FDI policies letting foreigners grab excessive shares of China's investment opportunities while China's poor institutions discourage domestic capital formation. Or, if such a phenomenon is present, it is also present in enough other countries to render Chinese data non-anomalous.

The next section motivates our research question. Section three describes our general views on inward FDI and the quality of governments and institutions. Section 4 reports the empirical tests that educe our conclusions. Section 5 uses these results to understand China's high FDI inflows relative to those into countries with comparable incomes. Section 6 discusses the issues regarding the institutional variables and their effects on regression explaining inward FDI. Section 7 concludes that "too much" FDI is not flowing into China.

2. ISSUES

The importance of sound institutions to economic development has now received wisdom. Solid property rights protection and respect for the rule of the law are viewed as the basic factors that determine macroeconomic stability, capital market development, business sector development, and investment in innovation—see La Porta, Lopez-de-Silanes, Shleifer, & Vishny, 1997, 1998, Acemoglu, Johnson, Robinson, & Thaicharoen, 2003, Durnev, Li, Morck, & Yeung, 2004, Acemoglu, Johnsn, & Robinson, 2005, and many others. The successful development and maintenance of sound institutions are therefore now seen as a critical function of government; indeed, as a fundamental test of "good government."

From this perspective China's economic growth seems a puzzle. China features a one party political monopoly. By most reckoning, democracy, and political transparency are not integral to the Chinese polity. Stories of corruption, scandals, and embezzlement starring government bureaucrats, bank executives, and corporate insiders contribute to a general perception of weak property rights. More formal evaluations of the quality of Chinese institutions concur with these impressions.

Table 1 shows China's "rule of law" exceeding levels in both the former Eastern Bloc and Latin America, though its score on corruption is weaker. But China's growth outpaces both these regions. This success understandably draws economists, such as Allen, Qian, and Qian (2005), and others, to envision a "Chinese model" of development that permits vigorous growth despite feeble institutions.

But Table 1 also sounds a note of caution. China's *per capita* GDP is markedly lower than the averages for either the Eastern

Table 1. *Key statistics for China, the Former Eastern Bloc, and Latin America. Figures are averages over 1993 through 2003, and across all countries in Latin American or the former Eastern Bloc*

	China	Former Eastern Bloc	Latin American
Economic performance			
Per capita GDP (US$)	761.8	2251.9	2923.8
Average annual GDP growth	8.4%	2.7%	0.7%
Foreign investment			
Inward FDI *per capita* (US$)	$34.4	$89.6	$87.3
FDI/GDP	4.7%	4.3%	3.1%
Institutional development			
Respect for the rule of law	4.9	4.5	3.1
Freedom from corruption	2.5	3.3	2.9
Responsible government	−7.0	3.0	7.6
Constraints on executive power	3.0	4.4	6.1

"*Respect for the rule of law*" is an ICRG survey result gauging the state of law and order in each country. It ranges from 1 to 6, with higher values connoting greater general respect for the rule of law. It contains a law component, which captures the strength and impartiality of the legal and political establishment in judicial matters, and an order component, which captures the extent to which residents of a country accept established legal and political institutions as the sole legitimate way to make and implement laws and to adjudicate disputes. We report the average of the variable from 1993 to 2002.

We also adopt International Country Risk Guide's corruption index as our "*freedom from corruption*" index; this measure is most commonly used in the related economics literature, and also has the widest coverage among standard corruption indices. This variable captures the likelihood that high government officials demand special payments, and the extent to which illegal payments are expected throughout low levels of government. In addition to bringing consistency with the previous studies, the broad coverage of countries preserves our sample size. The index takes values ranging from zero (most corrupt) to six (least corrupt); and so falls with rising corruption.

"*Responsible government*" is constructed from the Polity IV database and rates each country on a democracy–autocracy scale. The database has an autocracy variable ranging from 0 to 10, with a larger number indicating a more autocratic government. It also has analogous democracy index ranges from 0 to 10, but with a larger number indicating more democratic government. Our responsible government variable is the democracy index minus the autocracy index, a measure called *polity2* in the database. It captures the extent to which a political regime is responsible to its people, the larger the number the stronger the democratic checks on the political system.

"*Constraints on executive power*" is also from the Polity IV database, and ranges from 1 to 7 with higher values indicating stronger checks on heads of government. It is composed of indexes that gauge barriers to political entry (monarchy to dictatorship to open entry), the nature of political transitions (orderly or military), and the selection of successors (genetics to appointment to open election).

Bloc or Latin America. This low starting point gives China more room than most countries to grow simply by catching up. Even though many equally poor countries do not manage to grow rapidly, a low starting point makes China's rapid *per capita* GDP growth rate less impressive: any capital allocated to any entrepreneur may well generate quick economic growth.

A full analysis of the importance of political economy to economic development is clearly beyond the scope of this study. We focus on only one factor in the economic development—FDI inflow—and thus investigate only one small part of a greater picture. We adopt this focus because investment is a key determinant of growth. Foreigners' capital is more footloose than domestic capital, and is thus more sensitive to outside opportunities. Foreign investment ought therefore to be more sensitive to institutional deficiencies.

If foreign capital flowing into China is unaffected by the institutional factors that determine the allocation of foreign capital elsewhere, there may well be a distinct "Chinese model." One plausible possibility is that foreign investors are undeterred by China's inadequate institutions because the Chinese government favors them (Huang, 2003). Another is that foreign investors are overenthusiastic about China's potential. But if the same determinants affect FDI allocation in China as elsewhere, Chinese exceptionalism is rendered dubious. Of course, its domestic savings might still be allocated uniquely; but even if this were so, our study narrows the scope for any possible Chinese singularity.

China surpassed the United States as the world's largest FDI recipient in 2001. But China is a very large country—economically and geographically as well as in terms of population. Comparisons across countries must be scaled by country size. Table 1 shows China's inward FDI as a fraction of GDP is larger than in either Latin America or the former Eastern Bloc, but smaller if measured *per capita*. This makes

sense because China's low *per capita* GDP and large population make its absolute FDI inflow seem large, just as its rapid *per capita* GDP growth rates seem large, in part, because of its extremely low starting point.

In Figure 1, this issue further is pursued. Before 1993, China's FDI falls short of the global average, regardless of whether it is expressed *per capita* or as a fraction of GDP. But after a series of reforms begun in 1993, China's FDI inflow surges. From 1990 through 2003, FDI inflow averages 4.3% of GDP—double the world average of 2.1%. But, FDI inflow *per capita* remains low. Even the highest level it achieves in the data underlying Figure 1, about US$ 40 per capita, is only about one-fifth of the world average. The world mean is heavily skewed by very high-income countries, such as Canada, the United Kingdom and the United States. Only when judged against other countries with comparably low starting points does China's FDI inflow seem impressive. For example, for the period 1993 and beyond, China exceeds by almost 50% the average FDI *per capita* of the countries with comparable GDPs *per capita*. [1]

Thus, whether China's performance is exceptional or not depends critically on how it is measured, against which benchmarks it is compared, and on how much of China's economic performance can be dismissed as "easy growth" as the country catches up after decades of stagnation under Maoist socialism.

But let us accept that China's ability to attract FDI is of economic interest, and seek an economic explanation of it. Given this motivation, we use a straightforward empirical specification to consider two questions:

1. Is FDI allocation affected by government quality?
2. Is China's FDI inflow exceptional, given the result in 1?

To lay the groundwork for answering these questions, we next consider the determinants of FDI inflow.
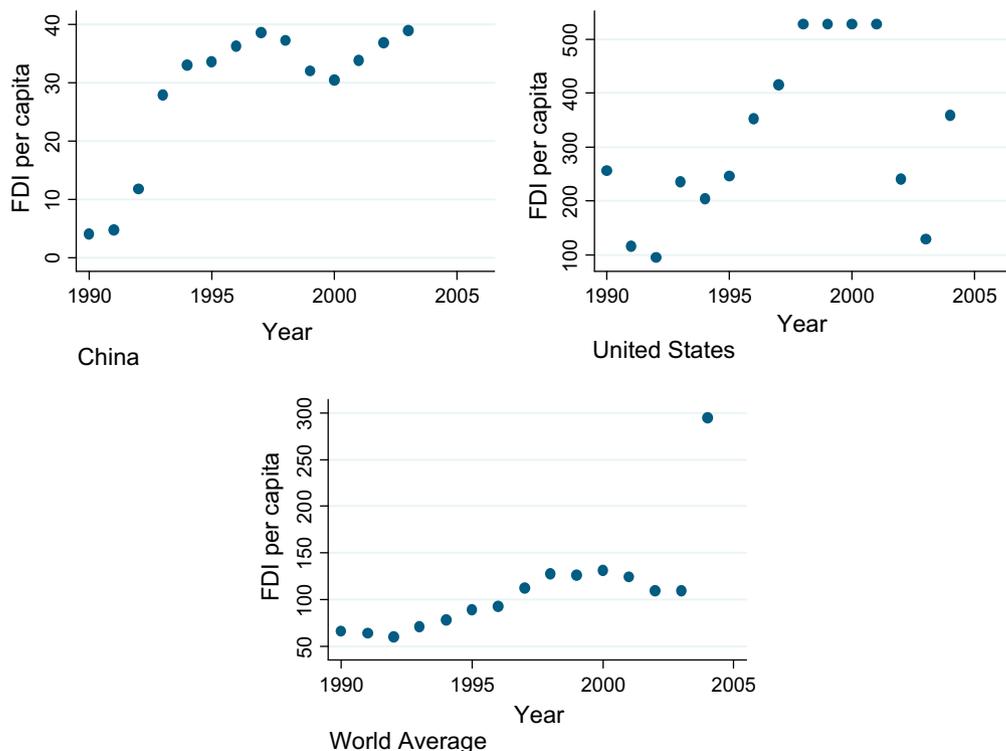

Figure 1. *Foreign direct investment Inflows to China, the United States and the World. Foreign direct investment inflow is expressed as per capita (in US$ deflated to 2000).*

3. THE ROLE OF "GOOD GOVERNMENT" IN ATTRACTING FDI

The literature on FDI, though voluminous, points toward a relatively simple generic empirical specification.

The starting point of the modern FDI literature is the Coasean *Theory of the Firm* (Buckley & Casson, 1976; Coase, 1937; Caves, 1971, 1995, and others). In essence, prospective multinational firms are envisioned as possessing information-based firm-specific capabilities that they could profitably apply in foreign countries. Indeed, these capabilities compensate for local firms' "home court advantage" to let multinationals earn returns high enough to justify their investments abroad (Morck & Yeung, 1991, 1992). Agency problems, information asymmetries, and property rights protection problems render information-based assets inalienable, and so prevent these firms from selling or leasing their capabilities to foreign firms. To apply their unique capabilities abroad profitably, multinationals must thus establish controlled foreign operations—that is, engage in FDI. The fundamental principle, however, is that FDI is an investment like any other—aiming to capture quasirents to realize a positive net present value (NPV).

The NPV of a corporate investment project of this sort depends on a multitude of factors. Caves (1995) draws attention to economy size in this context: a larger economy gives an investment project with higher fixed costs a higher NPV; so FDI inflow, all else equal, should be larger into larger economies. The NPV a firm foresees also depends positively on local product and factor market development, growth potential, and the availability of financing; and negatively on market risks and costs of doing business. The last is especially emphasized, and linked to high taxes, high wages relative to productivity, and generally poor infrastructure.[2]

All these factors, including the development of the financial system, depend on an economy's institutional environment— its rules, regulations, and informal codes of behavior. As described above, the commercial success of FDI hinges on how well a firm protects its property rights and overcomes a range of agency and information asymmetry problem; and foreign firms are particularly handicapped in achieving these goals, giving local firms their above-mentioned home court advantage (Zaheer & Mosakowski, 1997). But if locals make transparent and predictable use of practicable norms, legal systems, and political institutions to adjudicate disputes, this home court advantage diminishes and FDI flows in more abundantly. This consideration echoes the more general finance and growth literature, which emphasizes how sound and well-enforced rules and regulations, like property rights protection and information disclosure, encourage economic development in general and capital market development in particular (King & Levine, 1993; La Porta, Lopez-de-Silanes, Shleifer, & Vishny, 1997, 1998). This is because such rules and regulations constrain opportunistic behavior and build transactional trust between contracting parties (North, 1990).

Establishing and administering sound rules and regulations require "good government." Governments that are less corrupt have more efficient bureaucracies, and that impose less burdensome regulations foster economic development. Alfaro, Kalemli-Ozcan, and Volosovych (2005) show that weak institutions explain why very little capital flows from rich to poor countries. Globerman and Shapiro (2002) find preliminary evidence that FDI flows toward locations with sounder governance infrastructure, which includes how well the legal system enforces contracts and protects property rights, how free the government is from corruption, and how efficient the government is; that is, how well regulators and other bureaucrats avoid imposing unnecessarily burdensome regulations.[3] Their result could reflect countries with better institutions having stronger growth opportunities, which attract more FDI.

Governments are, of course, staffed by people. Sound institutions require high quality government, and this requires well-qualified politicians and civil servants. Just as good corporate executives are products of good internal corporate governance, high quality politicians, and civil servants arise from sound public institutions. This circularity can lock in either good or bad government.

The sort of circle into which a country fits determines critically its appeal as an FDI destination. Transparent and orderly political competition, along with constraints on executive power, seems paramount. Acemoglu and Johnson (2005) find stronger constraints on government associated with less corruption and more predictable policies and regulations. They unbundle institutions into those protecting contracts and those protecting property. The former facilitate contractual arrangements between transacting parties; the latter constrain public officials from acting arbitrarily for personal gains. Investment and growth appear better explained by property rights protection, while the former influence mainly the form of contracting that occurs.

Constraints on executive power may be particularly worthy of attention when we examine countries that feature recent phenomenal growth. These countries, of which China is one, need external capital to capture their growth opportunities. To attract foreign capital, their governments should be particularly enthusiastic about implementing and enforcing property rights, honoring policy commitments, and avoiding burdensome regulations. But foreign investors' concern is often not about such governments' current stances, but about how they might act once the investments are in place—especially if growth and investment opportunities become less profuse. Constraints on executive power prevent heads of government from abruptly altering property rights, revising policies, reneging on commitments, and capriciously imposing new regulations. In short, they prevent short-term actions, like precipitous expropriations, in the event of negative shocks. Executive constraints, especially if safeguarded by political competition, should reinforce the attractiveness of current sound policies to FDI by credibly assuring the permanence of those policies.

In summary, basic economic and institutional factors attract FDI inflow. The economic factors include the size of the market, the current level of development, and factors like education and infrastructure development that affect productivity and future development potential. Obviously, other economic factors, notably trade openness and the host country's currency (see, e.g., Froot & Stein, 1991), affect the FDI flows too. The institutional factors include general measures of "good government" such as the instillation of law and order in the public, high quality public officials, and the strength of constraints on executive power.

4. EMPIRICAL FINDINGS

This section examines the international allocation of inward FDI, as tabulated in the World Bank WDI database. Our dependent variable is *per capita* FDI in constant 2000 US$, winsorized at 5%.[4] We add a constant to this quantity because some countries have negative FDI inflows (negative FDI inflow represents repatriation of previous investment).[5] Dropping the negative FDI inflow observations leads to

qualitative similar results. However, we are not aware of persuasive economic reasons to exclude these observations.

We reiterate here our twofold intentions. First, we wish to investigate empirically our thesis that "good government" attracts FDI. Second, we wish to see if the FDI flowing into China behaves similarly to that flowing into other countries. To these ends, following the discussion above, we regress each country's FDI inflow on a set of country characteristics associated with the quality of government, along with some basic measures of the level of development and other country characteristics such as the population size, demographic characteristics, and trade policies. We include China in these regressions and then ask whether China-specific dummies are significant.

(a) Focal-independent variables

Our focal independent variables are "quality of government" measures. Following the discussion above, we include three sets of these.

(i) Constraints on executive power

We use two variables to capture the strength of constraints on executive power.

Executive constraints, from the Polity IV database, ranges from 1 to 7. It is composed of indexes that gauge barriers to political entry (monarchy through dictatorship to open entry), the nature of political transitions (orderly or military), and the selection of successors (genetics through appointment to open election). This variable therefore captures the strength of institutionalized constraints on the decision making power of a country's chief executives. The larger the number is, the stronger the constraints.

Responsible government is constructed from the Polity IV database and rates each country on a democracy–autocracy scale. First, in the database an autocracy variable is available, ranging from 0 to 10, with a larger number indicating a more autocratic government. Also available is an analogous democracy index that ranges from 0 to 10, but with a larger number indicating a more democratic government. Our *responsible government* variable is the democracy index minus the autocracy index, a measure called *polity2* in the database. It captures the extent to which a political regime is responsible to its people, the larger the number the stronger the democratic checks on the political system.

(ii) General institutional quality

In addition to our executive power limitation variables, we consider a commonly used measure of the general quality of government: the *rule of law* index from ICRG. This is a survey result gauging the state of law and order in each country. It ranges from 1 to 6, with higher values connoting greater general respect for the rule of law.[6] It contains a law component, which captures the strength and impartiality of the legal and political establishment in judicial matters, and an order component, which captures the extent to which residents of a country accept established legal and political institutions as the solely legitimate way to make and implement laws and to adjudicate disputes.

We also adopt International Country Risk Guide's corruption index as our *freedom from corruption* index; this measure is most commonly used in the related economics literature, and also has the widest coverage of the standard corruption indices. This variable gauges corruption as the incidence of the high government officials demanding special payments, and of illegal payments being expected throughout the low levels of government. In addition to being consistent with the previous studies, the variable has the advantage of having the broadest coverage of countries, which maximizes our sample size. The index itself takes on values ranging from zero (most corrupt) to six (least corrupt), and hence falls with rising corruption.

(iii) Government track record

A government's track record plays an interesting role. As explained in the previous section, FDI is large where foreign corporate investors regard investment opportunities highly. Obviously, investment opportunities are more abundant where institutions are better, where government officials are less corrupt, bureaucracies are more efficient, and the rule of law is more generally upheld. Yet positive shocks to investment opportunities can also entice governments seeking to attract foreign capital to provide such institutions. Hence, a simple relationship between measures of government quality and FDI could be misleading. At the very least, to sort this out, our empirical investigation should incorporate a proxy for the presence of profitable investment opportunities. This is the track record of the government, which we measure in two ways.

Growth trend is a country's *per capita* GDP growth rate, averaged over the prior five years. We interpret rapid past growth as indicative of both profitable investment opportunities and a government able to foster, or at least not impede, their exploitation.

Macro volatility is the standard deviation of *per capita* GDP growth over the prior five years. Less stable growth, all else equal, is less conducive to FDI, and is less indicative of sound and predictable government policies.

(b) Control variables

Alongside our focal-independent "quality of government" measures, we also include set of variables capturing other economy characteristics that are likely to be associated with a higher FDI inflow. These are:

(i) General economy development

We gauge general development using the following variables: *log of per capita GDP* in 2000 constant US$; *education* measured by the log of years of schooling, averaged across all the country's residents; *infrastructure* quality, represented by telephones per thousand residents; and *level of urbanization*,[7] urban population as a fraction of total population. This set of variables is commonly used elsewhere in the literature (see e.g., Coughlin *et al.,* 1991).

(ii) Other economy characteristics

Based on the discussion in the previous section, we include set of country characteristics. We include *country size*, measured as the log of total population, to control for scale economies attainable in each country. Because a country's productivity and growth are positively associated with the proportion of its population who are working age adults (Mason, 2007), we also include *adults as a fraction of the population*.[8] China is currently enjoying a demographic growth dividend; the decline in its birth rate since 1949, and particularly so since 1959, is now swelling its working age adult population.

We further include a measure of *openness*, import plus export as a fraction of GDP, for two reasons.[9] Openness reduces the utility of FDI for jumping trade barriers. But more open countries are also more attractive places to site, for example, vertically related FDI. Openness might also reduce information asymmetry for potential foreign investors, and might

correlate with a variety of positive economy features. The variable is lagged one period to mitigate endogeneity issues.

We also include the *exchange rate* of each country's currency relative to the US$, normalized by the 2000 rate. This means a higher value of *exchange rate* implies a more depreciated local currency. Countries with undervalued currencies, all else equal, attract more FDI (see e.g., Froot & Stein, 1991).

While we introduce these variables as *controls*, they are also, in part at least, reflections on the quality of each country's government and institutions. Better governed countries typically have more telephones *per capita,* more educated people, more trade openness, and currencies that better hold their values. This may even apply to population, for emigration is a common response to misrule. Including these controls thus biases our analysis against finding significant results for our focal "quality of government" variables.

(c) *China dummies*

Because our objective is to see if China's FDI inflow is "exceptional," we include a *China dummy*, δ_{China}, in the regressions. If this variable is significant, China differs on average from other countries after conditioning on the variables mentioned above.

We further employ a regime shift dummy. Observers of Chinese economy know that 1993 marks a turning point—Deng Xiaoping's *Southern Tour*—which sent a strong signal to the world of China's commitment to economic liberalization. Such a regime shift can cause a surge of investment (Henry, 2000) that subsequently abates over time. We therefore create a *post 1993 dummy*, $\delta_{t> 1993}$, and include in the regression two additional variables: *China post 1993* $\equiv \delta_{China} \times \delta_{t> 1993}$, and *China post 1993 trend* $\equiv \delta_{China} \times \delta_{t> 1993} \times (t - 1993)$, where t measures time; the former captures the response of FDI to a significant regime shift, and latter detects the extent to which the effect fades with time.

(d) *Regression specification and sample*

Our regression specification is thus

$$\ln(FDI\_PC_{it}) = a_0 + a_1\delta_{china\ it} + \mathbf{X}'_{it}\mathbf{b} + \mathbf{Z}'_{it}\mathbf{c}$$
$$+ d_0 China\ post\ 1993_{it}$$
$$+ d_1 China\ post\ 1993\ trend_{it} + et + \varepsilon_{it} \qquad (1)$$

where $\mathbf{X}_{it}$ is a vector of variables related to general development and economy characteristics—including log GDP *per capita, log (mean* years of schooling), telephone density, urban share of population, adult share of population, log population, exchange rate, and openness—and $\mathbf{Z}_{it}$ is a vector of institutional quality measures. We divide these into two parts: **inst**, containing responsible government, executive constraint, rule of law, and control of corruption, and **track**, containing measures of the government's track record—the growth trend of a country and the volatility of growth rate in the prior 5 years. Since our institutional variables exhibit little variation over time, and fixed effects would exacerbate measurement problem (Griliches & Hausman, 1986), we rely on ordinary least square to estimate our regressions, but cluster by country when estimating standard errors (Moulton, 1986). Using random-effects estimation generates qualitatively similar results.

Data from 1961 to 2003 for the following 61 countries are included in specifications using the institutional variables *executive constraints* or *responsible government* (both from the PolityIV database): Albania, Argentina, Armenia, Australia, Azerbaijan, Belarus, Belgium, Benin, Bolivia, Brazil, Canada,

Chile, China, Colombia, Dominican Republic, Ecuador, Egypt, El Salvador, Eritrea, Estonia, Ethiopia, Finland, Gabon, Ghana, Greece, Guinea-Bissau, Hungary, India, Iran, Israel, Italy, Jamaica, Japan, Jordan, Kenya, Lao PDR, Liberia, Mali, Mexico, Nicaragua, Norway, Pakistan, Panama, Papua New Guinea, Peru, Poland, Russian Federation, Rwanda, Saudi Arabia, Senegal, Swaziland, Syrian, Tunisia, Turkey, Turkmenistan, Uganda, Ukraine, United States, Uzbekistan, Venezuela, and Yemen. In specifications for which the institutional variable is the rule of law (from ICRG), we can use data for 120 countries from 1982 to 2001 for the ICRG-based regressions. [10] Our sample is thus constrained by the differing coverage of the two datasets. Observations with the missing data for any variables are dropped. *Rule of law* is missing less frequently than *executive constraint* or *responsible government*, but is available over a shorter panel—1982 through 2001. Restricting all our regressions to this shorter period generates qualitatively identical results.

(e) *Summary statistics*

Table 2 reports standard descriptive statistics for our variables across the relevant samples of countries. We present four samples: a pooled sample excluding China (using the combined sample for regressions with the polity IV variables and with the *rule of law*), China before 1993, China after 1993, and a "similar income countries" subsample after 1993. The last consists of 1993–2003 data on countries whose GDP *per capita* is bounded by China's minimum and maximum GDP during 1993–2003 (excluding China, of course).

The interesting observations from Table 2 are as follows. First, China's FDI inflow clearly rises substantially after 1993—more than 30-fold. Obviously, China's *per capita* income also gallops forward during this period, as the country starts catching up with the rest of the world. Second, while China's *limits on executive power* (as captured by *responsible government* and *executive constraints*) change little, and remain below the average and the average for countries at similar income levels, its *general institutional quality* (as captured by the *rule of law* and *control of corruption*) paints a more complicated picture. China's rule of law rises from well below the global average and the average for countries at similar income levels to well above both. China's freedom from corruption, however, deteriorates over time, falling to levels typical of countries with comparable incomes *per capita*.

(f) *Regression results*

Table 3 describes our cross-country regressions. For each institutional variable, we present results both with and without the *China 1993 dummy* and *China 1993 trend*—with the former in odd and the latter in even number columns.

High scores for good government generally accompany high FDI inflows. A good government track record also accompanies a high FDI inflow, for past average growth attracts a positive significant coefficient and elevated growth rate volatility attracts a negative coefficient. General government quality, our *rule of law* variable, is statistically significantly associated with higher FDI inflows. Overall, FDI inflows correlate positively with a government's *track record* and the prevalence of the *rule of law*—the quality of government matters.

The strength of *limits on executive power* is statistically insignificant in explaining FDI inflow. This may reflect mismeasurement, for the variables in this category are revised slowly despite obvious changes in reality. Take China as a case in point—while Chinese governance changed markedly over

Table 2. *Summary statistics China and comparison countries*

Variable	Countries other than China		China before '93		China after '93		Similar income countries after'93	
	Mean	Sd	Mean	Sd	Mean	Sd	Mean	Sd
Foreign direct investment								
FDI *per capita*	$99.62	157.47	$1.33	2.75	$33.9	3.51	$23.09	30.45
Limits on executive power								
Executive constraints	5.03	2.3	2.42	0.66	3	0	5.42	2.44
Responsible government	3.98	6.98	−7.58	0.66	−7	0	4.35	7.28
General institutional quality								
Rule of law	3.63	1.64	3.12	0.41	4.86	0.33	3.13	0.91
Freedom from corruption	3.49	1.46	3.88	0.42	2.51	1.31	2.9	0.96
Government track record								
Growth trend (*per capita* GDP)	1.27	2.78	6.01	2.52	8.31	1.49	0.81	2.89
GDP growth standard deviation	0.06	0.05	0.12	0.08	0.04	0.03	0.06	0.05
General development								
Log of *per capita* GDP	7.78	1.58	5.04	0.55	6.65	0.27	6.64	0.25
Log (mean years of school)	1.47	0.72	1.37	0.15	1.71	0.03	1.37	0.37
Telephones per 1,000 people	162.76	199.24	3.53	2.16	86.46	63.12	28.01	23.24
Urban share of population	54.59	22.63	20.07	3.84	34.53	3.23	41.41	14.22
Other characteristics								
Log (population)	2.63	1.32	6.8	0.18	7.12	0.03	2.75	1.34
Adult share of population	58.97	6.5	59.45	4.32	67.96	0.72	56.17	4.26
Trade_GDP1	61.39	33.7	19.74	10.9	43.88	5.79	70.96	27.37
Exchange rate	0.61	0.41	0.32	0.12	0.98	0.09	0.79	0.27

Note: Similar income countries are defined as countries whose GDP *per capita* is bounded above and below by the maximum and minimum levels of China's GDP *per capita* during 1993–2001.

the past two decades, this is reflected in neither of the two indicators in Table 2. In contrast, the *rule of law* variable captures subjective impressions by foreign investors, and is perhaps a more up-to-date snapshot of reality.

Another puzzle is the utter insignificance of freedom from corruption, contrary to our expectations. A possible interpretation is that corruption is less damaging to FDI than the popular press claims. If foreign investors regard bribery as a cost of doing business, and high bribes are repaid with other breaks, like low formal taxes or regulatory privileges, FDI might proceed apace. While opaque and unpredictable government is detrimental to efficient and effective business operations, this effect is also perhaps better captured by the rule of law variable.

Some evidence links trade orientation to FDI. While lagged trade over GDP is insignificantly associated with FDI *per capita* if the institutional variables are *executive constraint* or *responsible government*, it becomes highly positive and significant if the *rule of law* is used. Intriguingly, the other variables are rarely consistently significant and robust. Two exceptions are that greater urbanization is associated with more FDI inflow *per capita* that FDI inflow *per capita* exhibits a strong positive global time trend.

To account for China's 1993 regime shift, we use our *China post 1993 dummy* and *China post 1993 trend*. The former captures any discrete FDI response to the regime shift, while the latter gauges how fast any FDI impulse fades over time. These terms attract a positive and a negative significant coefficient, respectively. After 1993 China's FDI inflow *per capita* jumps by 108–172 log points, all else equal, and its growth rate in FDI *per capita* drops by 11–15% per annum subsequently. Thus by the end of our sample period, the jump is largely dissipated.[11]

Chinese data appear unexceptional, for the China dummy is statistically insignificant and unstable of sign. This is so regardless of whether we include or exclude regime change variables. Thus, China seems little different from other countries in terms of its FDI inflow *per capita* once we incorporate appropriate controls. There is no Chinese exceptionalism.

A reasonable concern here is that we ignore regime changes in other countries, but not in China. If regime changes are correlated across countries, our regression results may be biased. A full fledged inquiry into worldwide policy regime changes and FDI allocation is far beyond the scope of this study, but we can explore how our estimates might be affected by incorporating other countries' well-known policy regime changes. Also, we can check if the impulse response to China's regime shift is similar to that accompanying other countries' regime shifts. We focus on the transition to market economy by former Eastern Bloc countries, and construct three variables: *Eastern Bloc* (a dummy marking Eastern European and former Soviet Union countries), *Eastern Bloc post-1990*, and *Eastern Bloc post-1990 trend*, defined precisely analogously to *China post 1993* and *China post 1993 trend*. The Berlin Wall fell on November 9, 1989 so we take 1990 as the defining moment for regime change in the Eastern Bloc.

Table 4 shows that Eastern Bloc countries resemble China. Their 1990 transition presages an immediate jump in FDI inflow *per capita*. This jump is larger than China's—500 to 620 log points. A decline in growth rates after 1990 is also evident, and is again more dramatic than in China. The Eastern Bloc dummy itself attracts a negative and significant coefficient, and impulse response does not dissipate totally within our sample period, as China's does.

While all these findings are interesting *per se*, and clearly warrant further investigation, we return to our main focus. Allowing for similar important regime shifts elsewhere does not alter our results regarding China. The China dummy remains broadly insignificant (except in column 2, where it is *negative* and marginally significant). Our other results also

Table 3. *Regressions explaining FDI allocation across countries. Dependent variable in all regressions is log constant (0.5) plus per capita FDI inflow*

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Limits on executive power								
Responsible government	0.031	0.032						
	(0.91)	(0.94)						
Executive constraints			0.049	0.052				
			(0.53)	(0.56)				
General government quality								
Rule of law					0.239	0.236		
					(3.21)***	(3.17)***		
Freedom from corruption							0.088	0.089
							(0.99)	(0.98)
Government track record								
Growth trend (*per capita* GDP)	0.172	0.171	0.170	0.169	0.102	0.102	0.114	0.114
	(3.82)***	(3.79)***	(3.62)***	(3.58)***	(2.89)***	(2.89)***	(3.08)***	(3.08)***
GDP growth standard deviation	−3.089	−3.085	−3.610	−3.613	−6.198	−6.231	−6.064	−6.097
	(1.77)*	(1.75)*	(2.04)**	(2.03)**	(3.28)***	(3.29)***	(3.12)***	(3.13)***
China dummies								
China	0.184	−0.267	−0.035	−0.450	0.239	0.002	0.328	−0.095
	(0.20)	(0.30)	(0.04)	(0.54)	(0.54)	(0.00)	(0.70)	(0.19)
China post 1993		1.723		1.661		1.076		1.420
		(4.98)***		(4.85)***		(4.44)***		(6.79)***
China post 1993 trend		−0.105		−0.114		−0.149		−0.145
		(4.10)***		(4.26)***		(5.65)***		(3.10)***
General development								
Log of *per capita* GDP	0.069	0.038	0.093	0.065	0.153	0.151	0.190	0.184
	(0.17)	(0.09)	(0.22)	(0.15)	(0.52)	(0.51)	(0.63)	(0.61)
Log (mean years of school)	−0.247	−0.231	−0.261	−0.248	0.181	0.181	0.139	0.140
	(0.72)	(0.67)	(0.72)	(0.68)	(0.73)	(0.73)	(0.53)	(0.54)
Telephones per 1,000 people	0.002	0.002	0.002	0.002	0.001	0.001	0.002	0.002
	(1.11)	(1.17)	(1.05)	(1.10)	(0.98)	(0.99)	(1.28)	(1.30)
Urban share of population	0.030	0.030	0.029	0.030	0.019	0.019	0.018	0.018
	(2.06)**	(2.09)**	(1.99)*	(2.02)**	(1.77)*	(1.78)*	(1.64)	(1.65)
Other characteristics								
Log of population	−0.225	−0.226	−0.235	−0.236	−0.170	−0.170	−0.177	−0.178
	(1.57)	(1.57)	(1.60)	(1.60)	(1.47)	(1.47)	(1.44)	(1.44)
Adult share of population	0.064	0.063	0.074	0.073	0.045	0.045	0.055	0.055
	(1.23)	(1.22)	(1.43)	(1.42)	(1.27)	(1.27)	(1.52)	(1.53)
Trade_GDP$_{-1}$	0.004	0.004	0.004	0.004	0.008	0.008	0.008	0.008
	(0.85)	(0.84)	(0.80)	(0.78)	(2.29)**	(2.28)**	(2.25)**	(2.24)**
Exchange rate	−0.284	−0.291	−0.288	−0.293	−0.302	−0.305	−0.190	−0.197
	(0.78)	(0.80)	(0.78)	(0.79)	(0.85)	(0.85)	(0.50)	(0.52)
Year	0.050	0.048	0.053	0.051	0.076	0.076	0.083	0.082
	(2.93)***	(2.74)***	(3.03)***	(2.84)***	(4.85)***	(4.81)***	(5.01)***	(4.97)***
Observations	1,137	1,137	1,125	1,125	1,554	1,554	1,554	1,554
R-squared	0.49	0.49	0.48	0.49	0.54	0.54	0.53	0.53

Note: *t*-stat in parentheses. Standard errors are adjusted for country-level clustering. The constant 0.5 is being added to FDI *per capita* to take into account the fact that some FDI inflows have negative value.
* Statistical significance at 10%.
** Statistical significance at 5%.
*** Statistical significance at 1%.

remain intact: *track record* and the *rule of law* remain positive and significant; *limits on executive power* and *freedom from corruption* remain insignificant; and the China impulse response coefficients are not materially changed.

Another angle from which to explore China's possible uniqueness is that the institutional variables might matter differently for China *versus* other countries. To explore this, we interact the institutional and government track record variables with the China dummy. Table 5 shows that none of these interaction terms are statistically significant.

In summary, we find FDI attracted to countries with good government track records, as indicated by stable and high prior growth, and with high quality governments, as captured by the prevalence of the *rule of law*. Other popular measures of the quality of government—*freedom from corruption* and *limits on executive power*—do not significantly affect FDI inflows. Important pro-business policy regime shifts have the expected effect of attracting surges of FDI, which fade over time. Most importantly, we find no Chinese exceptionalism regarding FDI inflow. China's FDI inflow is neither higher than in other

Table 4. *Regressions explaining FDI allocation across countries. Dependent variable in all regressions is log constant (0.5) plus per capita FDI inflow*

	(1)	(2)	(3)	(4)
Limits on Executive Power				
Responsible government	0.002			
	(0.08)			
Executive constraints		−0.021		
		(0.30)		
General government quality				
Rule of law			0.250	
			(3.34)***	
Freedom from corruption				0.083
				(0.90)
Government track record				
Growth trend (*per capita* GDP)	0.178	0.181	0.103	0.116
	(4.11)***	(4.07)***	(2.89)***	(3.13)***
GDP *per capita* growth standard deviation	−3.991	−4.335	−6.537	−6.390
	(2.58)**	(2.69)**	(3.50)***	(3.32)***
China effects				
China	−1.081	−1.188	−0.050	−0.120
	(1.52)	(1.75)*	(0.11)	(0.23)
China post 1993	1.554	1.516	1.077	1.443
	(4.95)***	(4.85)***	(4.43)***	(6.95)***
China post 1993 trend	−0.094	−0.097	−0.146	−0.147
	(3.82)***	(4.01)***	(5.39)***	(3.05)***
Eastern Bloc dummies				
Eastern Bloc	−4.199	−4.564	−3.512	−3.110
	(11.71)***	(12.87)***	(10.83)***	(8.72)***
Eastern Bloc post-1990	5.859	6.226	5.073	5.115
	(14.78)***	(18.40)***	(27.42)***	(22.93)***
Eastern Bloc post-1990 trend	−0.169	−0.174	−0.144	−0.192
	(4.34)***	(4.40)***	(3.84)***	(4.22)***
General development				
Log of *per capita* GDP	0.051	0.053	0.153	0.191
	(0.12)	(0.12)	(0.51)	(0.63)
Log (mean years of schooling)	−0.031	−0.004	0.191	0.142
	(0.11)	(0.01)	(0.77)	(0.54)
Telephones per 1,000 people	0.001	0.001	0.001	0.002
	(0.69)	(0.66)	(0.80)	(1.21)
Urban share of population	0.024	0.024	0.019	0.018
	(1.77)*	(1.71)*	(1.78)*	(1.65)
Other characteristics				
Log of population, adult share of population, Trade/GDP$_{t-1}$, exchange rate, year	Yes	Yes	Yes	Yes
Observations	1,137	1,125	1,554	1,554
R-squared	0.52	0.53	0.55	0.54

Note: *t*-stat in parentheses. Standard errors are adjusted for country-level clustering. The constant 0.5 is being added to FDI *per capita*. The coefficients of "other characteristics" are similar to in Table and unreported.
* Statistical significance at 10%.
** Statistical significance at 5%.
*** Statistical significance at 1%.

countries nor differently related to institutional quality variables once obvious controls are included.

5. FDI ALLOCATION—CHINA AND THE WORLD COMPARED

We now turn to the economic significance of our regression findings in comparing FDI inflows into China and other countries. For comparison, we select a comparison group (CG) of countries whose GDP *per capita during 1993–2003* is bounded by China's minimum and maximum GDP in the same period. China's FDI *per capita* exceeds that for the comparison group

by 101 log points in 1993, and 121 log points in 2001. [12] Given this, how do our regression results explain China's *per capita* FDI premium with differences in the values of the regressors?

Regression [1] lets us decompose the *per capita* FDI inflow differential between China and the CG into a component explained by the observable variables, *Z* (*limits on executive power*, *general government quality*, *government track record*, *general development* proxies, and proxies for *other characteristics*) and by the China-specific unobservables as captured by the *China dummies* in Eqn. (1). For expository convenience, we focus on two years: 1993, is the water shed year of China's commitment to economic reforms signaled by Deng Xiaoping's Southern Tour and 2001, and the end of the year of

Table 5. *Regressions Explaining FDI Allocation across Countries. Dependent variable in all regressions is log constant (0.5) plus per capita FDI inflow*

	(1)	(2)	(3)	(4)	(5)
Expected GDP *per capita* growth	0.172	0.170	0.102	0.102	0.102
	(3.83)***	(3.62)***	(2.89)***	(2.89)***	(2.89)***
Expected GDP *per capita* growth * China dummy				0.023	
				(0.46)	
volatility in GDP *per capita* growth	−3.089	−3.610	−6.215	−6.189	−6.229
	(1.77)*	(2.05)**	(3.28)***	(3.27)***	(3.29)***
GDP *per capita* growth volatility * China dummy					5.258
					(0.81)
Responsible government	0.031				
	(0.91)				
Responsible government * China dummy	−0.026				
	(0.20)				
Executive constraints		0.049			
		(0.53)			
Executive constraints * China dummy		−0.011			
		(0.04)			
Rule of law			0.238	0.239	0.238
			(3.20)***	(3.22)***	(3.21)***
Rule of law * China dummy			0.076		
			(0.73)		
Observations	1,137	1,125	1,554	1,554	1,554
R-squared	0.49	0.48	0.54	0.54	0.54

Note: *t*-stat in parentheses. Standard errors are adjusted for country-level clustering. The constant 0.5 is being added to FDI *per capita* to take into account the fact that some FDI inflows have negative value. We also control for other variables that are controlled in Table 3.
* Statistical significance at 10%.
** Statistical significance at 5%.
*** Statistical significance at 1%.

our sample. In percentage terms, the observables explain the premium by $\beta_Z(Z_{china,t} - Z_{CG,t})/(Y_{china,t} - Y_{CG,t})$ while the unobservable explains the premium by $(\alpha_{china} + \gamma_1)/(Y_{china,t} - Y_{CG,t})$ in 1993 and by $(\alpha_{china} + \gamma_1 + 8 \times \gamma_2)/(Y_{china,t} - Y_{CG,t})$ in 2001. The results are reported in Table 6, the four column panels correspond to the regressions 2, 4, 6, and 8 in Table 3, respectively.

First, most obviously the chief factor that propels China's *per capita* FDI above countries of similar income is its economic track record—the past high and stable average growth account for about 46% to more than 100% of the FDI premium. The effect is larger in the year 2001 than in the year 1993.

Second, equally impressive is the contribution of adult (age 15–64) population share to China's FDI premium, which accounts for 45–80% of China's FDI premium over similar income countries. While the magnitude is slightly small in 2001 than in 1993, the difference is limited. Clearly, the attraction of China's working age adult for FDI exists. Perhaps, that is part of China's demographic dividends. The track record on growth and the demographic attraction together essentially accounts for more than a 100% of the China FDI inflow premium.

Third, China's large population naturally serves to dampen the magnitude of China's *per capita* FDI inflow. When we combine this factor with the demographic composition factor, which provides the opposite effect, the net magnitude is very "tame," about 21% in 1993 and 15% on the down size of the difference between FDI inflow in China and similar income countries. However, we add the caveat here that both the population and the adult population share variables are not significant explanatory variables in the base regressions in Table 3.

Fourth, the collection of the *general development* factors serves to press China's *per capita* FDI inflow below similar income countries in 1993, but the effect reverses sign in 2001 as a result of China's fast development. Among the factors, urbanization is the most critical factor: in 1993, the lack of urbanization presses China's FDI inflow down by 28% of the gap it has with similar income countries; the magnitude shrinks to 9.5% in 2001. Our most preferred setup, which is the third panel where the institutional variable used, the *rule of law*, is significant in the original regression reported in Table 3. In this setup, the *general development* factors lift China *per capita* FDI above similar countries and account for 30% of the premium.

Fifth, China's lower degree of openness reduces its FDI attraction, compared to the similar countries. But the effect is rather limited; it presses China's FDI inflow down the gap it has with similar income countries by 16% and 13% in 1993 and 2001, respectively. But these magnitudes are much smaller than that those due to China's growth track record. Note that the exchange rate factor has negligible economic significance.

Six, the set of China dummies reveals that the "impulse response" to China's 1993 strong signal for economic reforms raises the FDI inflows, but the effect is dampened substantially in 2001. In our most preferred setup, reported in the third column panel, the effect all but disappeared, as we also described earlier.

Seven, institutions do not play any significant role in causing the gap between the FDI inflow to China and similar income countries. Compared with the similar income countries, China has worse *limits on executive power* but actually a better survey record on the *rule of law*, the former negatively and the latter positively impact on China's inflow FDI premium over similar income countries. The *control for corruption* gives a more mixed picture: China was on record better than similar income country in 1993 and worse in 2001. Given that among the four variables only the *rule of law* is significant (see Table 3), we focus on it. The variable contributes 44% to China's inflow FDI

Table 6. *The relative importance of various factors in explaining China's FDI premium over countries with similar GDP per capita*

	Institutional variable is:							
	Responsible government		Executive constraint		Rule of law		Control of corruption	
	China 1993 *versus* similar countries	China 2001 *versus* similar countries	China 1993 *versus* similar countries	China 2001 *versus* similar countries	China 1993 *versus* similar countries	China 2001 *versus* similar countries	China 1993 *versus* similar countries	China 2001 *versus* similar countries
Difference in ln (FDI per capita)	**1.01**	**1.21**	**1.01**	**1.21**	**1.01**	**1.21**	**1.01**	**1.21**
Government track record								
(1) Expected growth	103.9	91.4	102.3	89.9	62.1	54.6	69.4	61
(2) GDP growth standard deviation	−8.1	11.9	−9.5	13.9	−16.3	24	−16	23.5
(1 + 2)	*95.8*	*103.3*	*92.8*	*103.8*	*45.8*	*78.6*	*53.4*	*84.5*
(3) Adult share of population	69.4	62.6	80	72.1	49.4	44.6	60.3	54.4
(1 + 2 + 3)	*165.2*	*165.8*	*172.8*	*175.9*	*95.2*	*123.2*	*113.7*	*138.9*
(4) China dummy effects total	143.4	50.7	119.4	24.6	106.3	−9.7	130.5	13.8
General development								
(5) ln (GDP per capita)	−1.6	0.6	−2.8	1	−6.4	2.2	−7.9	2.7
(6) Log (mean years of school)	−6.4	−7.2	−6.9	−7.7	5	5.6	3.9	4.4
(7) Telephones per 1,000	−2.9	20	−2.8	19	−1.5	10.2	−2.2	15.2
(8) Urban share of population	−34.9	−11.8	−34.4	−11.6	−22.2	−7.5	−21	−7.1
(5 + 6 + 7 + 8)	*−45.8*	*1.6*	*−46.9*	*0.7*	*−25.1*	*30.3*	*−27.2*	*15.2*
Other characteristics								
(9) ln (population)	−96.1	−82.2	−100.5	−86	−72.4	−62	−75.7	−64.8
(10) Trade_GDP$_{t-1}$	−10.5	−8.6	−9.8	−8	−21.7	−17.6	−22.1	−17.9
(11) Exchange rate	2.8	−5	2.8	−5	2.9	−5.2	1.9	−3.4
(9 + 10 + 11)	*−103.8*	*−68.6*	*−107.5*	*−99.0*	*−91.2*	*−84.8*	*−95.9*	*−86.1*
Institution variable	−36.1	−30.4	−12.5	−10.5	43.6	17	14	−14

Note: The numbers, starting from the second row with numbers, are percentage.

premium over similar countries in 1993 and only 17% in 2001. These magnitudes, while not negligible, are substantially smaller than the effects due to China's growth track record and demography, especially in 2001.

In summary, we find that China's *per capita* FDI premium over similar income countries is largely due to its record of high and stable growth rate and its demographic appeal. China's fast growth allows it to catch up with similar income countries in infrastructure development, and urbanization so that these factors do not cause much difference between *per capita* FDI inflows into China and similar income countries. The same applies to China's openness and exchange rate policies. Finally, while we find that the *rule of law* attracts FDI, survey record on China's *rule of law* is actually better than similar income countries and it positively impacts on China's FDI premium, although the dominant forces are still China's highly regarded growth record and demographic appeal.

6. DO INSTITUTIONS MATTER?

One prime objective of our investigation is on whether FDI allocation is affected by the quality of government and more broadly institutions. Answer to the question is not obvious. On the one hand, the law and development literature lead many to believe that a positive relationship exists; in particular, foreign investors face exacerbated information asymmetry

and institutional discrimination problems. On the other hand, FDI, compared to domestic investment, might be less affected by inadequate institutions because foreign investors may have better access to capital and may have home authorities' backing in protecting their rights. Multinationals often have a large network of subsidiaries and can utilize the extensive system to raise its bargaining power against rent-extracting politicians and thus its ability to protect property rights (Zhao, 2006). Moreover, while poor institutions discourage domestic capital formation, politicians may actually show favoritism to foreign direct investors. (Huang's (2003) suggestion leads to a substitution of some domestic investment by foreign direct investment in the case of China. [13])

Our results show a qualified affirmative answer: based on cross-country panel data, we show that both the "*rule of law*" and a good government track record, as registered by high and stable prior growth, attract FDI. A more conservative interpretation of the result is that, controlling for past growth record to proxy for expectations of future growth, "*rule of law*" attracts FDI. However, FDI inflows are not reliably related to *limits on executive power* or *freedom from corruption*. These mixed results are worthy of further discussion.

The insignificance of *freedom from corruption* is not inexplicable. Bribes can become part of the cost of doing business; and for foreign firms with bargaining power, high bribes can be offset with tax or regulatory privileges. This does not necessarily undermine previous work relating government

transparency and predictability to efficient and effect business operations, but this effect might be more effectively captured by the rule of law, which contains more time variation in our panel data.

Several important considerations arise in linking institutional variables to FDI inflows. In the following discussion, China is often an instructive case in point.

(a) *How representative are the variables?*

The significance of the *rule of law* and insignificance of *executive constraints* and *responsible government* variables are revealing, for measurement errors can render the relationship between a proxy and FDI insignificant even if the relationship between the unobservable underlying variable and FDI does exist. In other words, the *rule of law* may perform well because it more adequately represents true institutional quality than the other two.

Consider China's *responsible government* index: which is invariant at −7.0 (from a range of −10 to 10) throughout our sample period. Similar income countries' average score is 4.35; and needless to say China's score is poor. Similarly, China scores a 3.0 (from a range of 1 to 7) in *constraints on executive power* every year. Similar income countries' score is 5.42. These data clearly suggest that throughout our sample period, Chinese leaders face few constraints and little political competition, even compared to the similar income countries.

Now consider China's *rule of law* index, which averages 3.12 (from a range of 1 to 6) during 1982–93, but rises to average 4.86 during 1994–2001. Similar income countries' scores average only 3.13.

The values of these indexes, benchmarked against averages for other weak institution countries, warrant suspicion. Why do China's miserable *responsible government* and *constraints on executive power* scores not match its decent *rule of law* score? Why are the former two invariant over time, while the latter rises robustly? One possibility is that the first two are based on "expert assessments" while the "rule of law" score is a survey result.

Obviously, China's wretched *responsible government* score derives from being a communist country. But the Chinese Communist Party (CCP) is far from homogeneous. It has numerous factions at both the central and provincial levels. This internal competition resembles, in some ways, the factional disputes in, for example, Japan's Liberal Democratic Party. Just as LDP factional struggles constrain the Japanese prime minister's freedom of action, disagreements within the CCP increasingly constrain the discretionary power of China's top leaders. Although these disputes were present to some degree through most of the history of the People's Republic, the secretive and sometimes bloody power struggles of the 20th century seem to be giving way to more orderly ways of debating policy and handling, for example, the succession of power (see Keefer, 2006). Perhaps China's leaders really do not have the same unbridled executive powers wielded by dictators elsewhere in the developing world. Perhaps the construction of neither the *constraints on executive power* nor the *responsible government* variables (Section 4) adequately captures this rising competition within the Party. It seems likely that competition within the CCP reflects competition to bolster the proceeds of economic growth accruing to various factions of the population and economic interest groups. If so, China's *responsible government* and *constraints on executive power* scores might genuinely be "too low"? And if China's *responsible government* and *constraints on executive power* scores are unrepresentative, might those of other countries be questioned too?

The *rule of law* score tells a different story. Again, we use China as a case in point. While the executive constraints variables are constructed mechanically by applying rules assembled by experts to variables reflecting the formal structures of governments, the *rule of law* variable is a survey result. The former may well miss practical changes of the sort discussed above, but we must also concede potential problems with survey data. The survey variable, of necessity, reflects foreign investors' post-entry rationalizations, not their pre-entry fears. By self-selection and through the power of cognitive dissonance, the former are generally more positive than the latter. Foreign investors with very negative views likely stay away, or leave early. Those with excessively positive views likely enter and stay on, and having done so, rationalize their decisions *ex post*. Also, foreigners might select locations within China where the *rule of law* is unusually strong; or government officials might treat foreigners with greater respect. In these ways, survey scores might actually overestimate the *rule of law* and, since foreigners with more positive *ex post* views may well have invested more, risk inducing a mechanical positive *ex post* relationship between FDI and survey scores. Further distortions might arise because of typical endogeneity problems.

(b) *Options on institutions*

Another plausible explanation of insignificance of *constraints on executive power* is that foreign corporate investors anticipate increasingly effective constraints on executive power in the near future. Again, China is a case in point. This is a bet on a country's future institutional development, but such bets can be sound investments for their upside potential can greatly outweigh their downside risks. Indeed many corporate investments derive at least part of their values from such *real options*. Option-based investments could also weaken the relationship between FDI and checks on executive power.

7. IS "TOO MUCH" FDI FLOWING INTO CHINA?

Our primary research question is whether China is attracting too much FDI given its well-known institutional inadequacies and questionable government quality. Our answer is "probably not."

We estimate a cross-country FDI model that explains inward FDI using measures of the strength of constraints on executive power along with more general measures of government quality and track record at fostering growth plus controls for general development levels and key country characteristics. In this model, we also incorporate an "impulse" response to China's major 1993 economic reforms. We find that China's FDI inflow aligns well with what our model predicts—as regards both its level and its relationship to institutional quality and government track record variables. Although the 1993 reforms clearly induce and FDI impulse response, which declined significantly over time, a similar phenomenon is evident in former Eastern Bloc countries. Again, China is unexceptional.

What the regressions reiterate is that FDI is attracted by sound track records of governments overseeing high and stable growth. This clearly favors China, and predominates in explaining China's FDI inflow. High *rule of law* scores also attract FDI, but China scores little worse in *rule of law* than other countries at similar income levels. If there is any Chinese exceptionalism, it is that country's relatively high and rela-

tively stable prior growth. Parsing the difference between FDI into China and into countries at similar income levels supports no other conclusion.

Our results cast doubt on the hypothesis of a uniquely Chinese institutional bias favoring inward FDI. This bias is hypothesized because China's weak institutions may deter domestic firms from realizing investment opportunities even as tax incentives, special property rights protection, and other government policies favoring FDI present those same opportunities to foreign firms. If this were the case, our China dummy should have attracted a significant positive coefficient, or significantly shifted the slopes of key institutional variables. This is not observed. Either FDI is not crowding out domestic firms' investment in China or a similar phenomenon is sufficiently widespread in other developing economies as to render China again unexceptional.

NOTES

1. This point is elaborated in Table 2, discussed below.

2. Coughlin, Terza, and Arromdee (1991) provide empirical support for these factors influencing inward FDI, though they do not consider financial development. Froot and Stein (1991), while showing that undervalued host country currencies attract inward FDI, also stress barriers firms confront in raising capital to finance new investment projects. These barriers are particularly daunting for domestic firms in economies with underdeveloped capital markets. In such countries, foreign firms could have an advantage in capturing the NPVs of new investment projects because of their access to better functioning foreign capital markets (Foley, Desai, & Hines, 2004). Lane (2007) suggests that foreign investors may also invest in abroad because of institutional voids in a country that allows them to maximize profits. See also Dunning (1993) and Dunning and Zhang (2007) for the relationship between FDI, locational competitiveness, and other factors.

3. Their empirical results do not control for expected growth, so institutional factors might proxy for this, or for government behavior associated with expected future growth and thus with a need for FDI.

4. Winsorization prevents disproportionate influence of outliers due to measurement errors. This variable is highly skewed: its fifth and first percentiles value are -0.46 and -79.0, while its ninety-fifth and ninety-ninth percentiles are 527.8 and 1064.0. Its minimum is $-2,615$ and its maximum is 259,837. The results are qualitatively similar when we winsorize at the first or fifth percentiles. However, giving the 5% threshold is around 0 (instead of -79 at the 1% level), interpreting magnitudes is simpler, for $\log(\text{FDI } per\ capita + \text{constant})$ is closer to $\log(\text{FDI } per\ capita)$ if the constant is 0.5, instead of 80, and log differences can be interpreted as percentage differences.

5. In total, 6.3% of the observations are negative. We add 0.5 to FDI *per capita* so the minimum of the winsorized FDI *per capita* is positive.

6. ICRG data has the advantage of covering the majority of countries from 1982 on. For details, see Knack & Rahman, 2007.

7. We have also tried including the percent of GDP accounted by manufacturing and services, and found that they do not matter for attracting FDI after controlling for GDP *per capita*, urbanization, and other controls.

8. Adults are defined to be between the age of 15 and 64.

9. We thank an anonymous referee for the suggestion.

10. The list of countries is available upon request.

11. For example, using column six, the jump effect and the time trend effect offset each other in between the 7th and the 8th year, that is, around 2000.

12. This is only approximately true. Our dependent variable is $\ln(0.5 + \text{FDI } per\ capita)$, which is very close to $\ln(\text{FDI } per\ capita)$ when FDI *per capita* is around 20–30 dollars *per capita*.

13. The Huang (2003) argument can be interpreted as that the government's pro foreign direct investment behavior can create a substitution between domestic and foreign direct investment; yet, the overall poor institutions can nevertheless discourage and thus mitigate the level of investment.

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