International Competition for Foreign Direct Investment:

The Case of China

Busakorn Chantasasawat, University of California, Santa Cruz

K.C. Fung, University of California, Santa Cruz and HIEBS

Hitomi Iizaka, University of Hong Kong

Alan Siu, University of Hong Kong

This Draft: December 2003

Paper to be presented at the Hitotsubashi Conference on International Trade and FDI, December 12-14, 2003. An earlier version of this paper was presented at the 6th Asian Economic Panel Meeting in Seoul, Oct 9-10, 2003. We appreciate comments from Wing T. Woo, Marcus Noland, Gordon de Brouwer, Yunjong Wang, Chen Kang, Chou Ji, Yiping Huang, Xiao Geng, Sylvie Demurger, Fredrik Sjoholm, Hu Angang and participants at the conference. This paper is supported by the Japan Foundation Center for Global Partnership (CGP) and the Hong Kong Institute of Economics and Business Strategy (HIEBS).

Abstract

There is a large literature on the determinants of foreign direct investment. In recent years, China emerges as the largest recipient of foreign direct investment. Is China taking direct investment away from other Asian economies? Theoretically, a growing China can add to other countries' direct investment by creating more opportunities for production networking and by raising demand for raw materials and resources. At the same time, relatively low Chinese labor costs may lure multinationals away from other Asian sites when multinationals consider alternative locations for low-cost export platforms. In this paper, we explore this important issue empirically. We use data from eight Asian economies (Hong Kong, Taiwan, Republic of Korea, Singapore, Malaysia, Philippines, Indonesia, and Thailand) from 1985 to 2001 and control for the determinants of their inward foreign direct investment (FDI). We then add China's FDI inflows as an indicator of the "China Effect". Due to possible simultaneity between China's and the Asian countries' inward FDI, we use fixed effects as well as random effects simultaneous equation models to estimate the "China Effect". We have four results: (1) The level of China's FDI is *positively* related to the levels of other Asian economies' inward direct investments; (2) the level of China's FDI is *negatively* related to these economies' shares of total Asian inward FDI as well as shares of total FDI inflows to the developing countries; (3) the China Effect on the Asian countries' shares of the world inward FDI is mixed, minimal and not significant; and (4) the "China Effect" is not the most important determinant of inward direct investments to these economies. In particular, corporate tax rates, the level of corruption, and openness to trade have more influential effects on FDI inflows.

1. Introduction

In recent years, China has become a preferred destination for foreign direct investment (FDI). In fact in 2002, foreign direct investment in China reached US$53 billion which was larger than the amount received in the United States. In 2003, despite the problems associated with SARS (Severe Acute Respiratory Syndrome), the projection is that China will receive more than US$55billion worth of foreign direct investment and will again be the top global recipient of foreign direct investment.

China is seen to be on its way to become "the factory of the world". Most of its Asian neighbors appear to have a great concern over such prospect. Several Asian governments have publicly noted that the emergence of China has diverted direct investment away from their economies. Policymakers throughout the region are convinced that the rise of China has contributed to the "hollowing out" phenomenon, a situation where foreign and domestic investors prefer to invest in China over their countries. This in turn has led to a continual loss of manufacturing industries and jobs, weakening the vitality of these economies.

It is not hard to find various analysts, commentators and policymakers in Asia who have voiced concerns about the emergence of China and that China is adversely affecting direct investment flows into their economies. In November 2002, Singaporean Deputy Prime Minister Lee Hsien Loong commented that "Southeast Asian countries are under intense competitive pressure, as their former activities, especially labor-intensive manufacturing, migrate to China. One indicator of this massive shift is the fact that Southeast Asia used to attract twice as much foreign direct investment as Northeast Asia,

but the ratio is reversed." (ChinaOnline, November 14, 2002). According to KOTRA, the state-run trade and investment promotion agency of Republic of Korea, the rate of foreign direct investment in most Asian countries is falling as global investors are being drawn to invest in China (Republic of Korea Times August 27, 2002). World Economic Forum director for Asia, Frank J. Richter, said if the Asian countries did not take prudent and pragmatic steps to be as competitive as China, foreign direct investment flows into these economies would be adversely affected (New Straits Times-Management Times March 9, 2002). Furthermore, Taiwan's Vice Premier Lin Hsin-I said that facing the rapid rise of the Mainland Chinese economy, Taiwan would have to take effective measures to increase its competitiveness. Taiwan has to implement the "go south" policy to encourage Taiwan to switch their investments from the Mainland to Southeast Asian countries (Taiwanese Central News Agency November 21, 2002).

In this paper, we would like to examine *empirically* the question of whether China has diverted FDI away from a group of Asian economies. The economies we shall consider include Hong Kong, Taiwan, Republic of Korea, Singapore, Malaysia, Indonesia, Philippines, and Thailand. The research strategy here is to control for the standard determinants of FDI and then add a proxy to represent "the China Effect". We then investigate the sign, significance, and magnitude of the "China Effect".

The organization of this paper is as follows. In the next section, we shall provide a survey of the relevant policy issues and the current literature. Section 3 set up the econometric model to be estimated. In section 4, we present and discuss our results. Section 5 concludes.

2. Determinants of FDI

Numerous empirical studies on the determinants of FDI lead us to select a set of explanatory variables that are widely used and found to be significant determinants of FDI.[1] Brainard (1997) empirically examines the determinants of the ratio of U.S. export sales to total foreign sales (the sum of export sales by sales by foreign affiliates) by industry. She focuses on factors that favor concentration of production (i.e. favoring exports) vs. proximity to overseas customers (i.e. favoring sales by foreign affiliates). The explanatory variables include freight costs to the export market, tariffs of the host country, per capita gross domestic product, corporate tax rates, measures of trade and foreign direct investment openness, measures of plant scale economies and corporate scale economies. A dummy variable is also added to represent whether a country has a political coup in the last decade. In her random effects estimation, almost all the variables have the right signs and are significant. The major exception is the corporate tax rates, which has the opposite sign as predicted.

Markusen and Maskus (1999), Lim (2001) and Moosa (2002) highlight how the domestic market size and differences in factor costs can relate to the location of FDI . A substantial literature has indeed confirmed empirically the importance of host country market size.[2] Foreign firms targeting a local market are more attracted to the country with higher growth rate of GDP as it indicates a larger potential demand for their product. Market size, thus, should have a larger effect on their investment decisions than its effect on investors who invest for alternative reasons. Furthermore, to foreign investors who

[1] Recent surveys include Agarwal, 1980; Gastanaga *et al.*, 1998 ;and Moosa, 2002.
[2] Some of the literatures are Moore, 1993; Bajo-Rubio and Sosvilla-Rivero, 1994; Wang and Swain, 1995; Schneider and Frey, 1985; Love and Lage-Hidalgo, 2000; Lipsey, 2000)

operate in industries characterized by relatively large economies of scale, the importance of the market size and it's growth is magnified. This is because they can exploit scales economies only after the market attains a certain threshold size. In this analysis, we use GDP per capita as a measure of market size and GDP growth as the economy's potential expansion. The expected signs of the coefficients are positive.

Given that labor cost is a major component of the cost function, various types of wages are also frequently tested in the literatures[3]. A high nominal wage, other things being equal, deters FDI. This must be particularly true for the firms which engage in labor-intensive production activities. Therefore, conventionally, the expected sign for this variable is negative. Nonetheless, there are no unanimous empirical agreements for the effect of labor cost on investment incentives as higher wages do not always deter FDI in all industries. While some studies have shown no significant role of labor costs, others have shown the positive relationship between labor costs and FDI[4]. Because higher wages indicate higher productivity, industries in which the quality of labor matters, such as those with significant research and development (R&D) expenses, prefer high-quality labor to cheap labor with low productivity.

The level of human capital is also highlighted to be another important determinant of the marginal productivity of capital and thus the extent of FDI (Lucas, 1988). It has been shown in various studies[5] that skill-related variables are specific to the host countries. When a host country is more appealing to labor-intensive foreign investment that requires relatively low skill level, the importance of the human capital variable tends

[3] Studies that find no significant or a negative relationship of wage and FDI are Kravis and Lipsey, 1982; Wheeler and Mody, 1990; Lucas, 1993; Bajo-Rubio and Sosvilla-Rivero, 1994; Wang and Swain, 1995; and Barrell and Pain, 1996.
[4] For positive relationship between FDI and wage, see Saunder, 1983; Schneider and Frey, 1985; Moore, 1993; and Love and Lave-Hidalgo, 2000.
[5] Fung, Iizaka, and Lee, 1999; Hsiao and Shen, 2002.

to be small. On the other hand, labor skill is more significant for a host country where more capital- and technology- intensive investment projects are concentrated. In our empirical analysis, we utilize illiteracy rate as a proxy for the level of human capital.

Institutional factors, such as corruption and political instability, are key determinants of FDI (Wei 1997, Markusen 1998). Corruption can discourage FDI by inducing a higher cost of doing business. Hines (1995), Wei (1997), and Gastanaga *et al*. (1998) examine the impact of institutional factors on FDI. Hines (1995) shows that FDI from the United States grows more rapidly in less corrupted countries after 1977. Wei (1997) presents alternative explanation of a large negative and significant effect of corruption on FDI. Unlike taxes, corruption is not transparent and involves many factors that are more arbitrary in nature. The agreement between a briber and a corrupt official is hard to enforce and creates more uncertainty over the total questionable payments or the final outcome. Wei demonstrates that this type of uncertainty induced by corruption leads to a reduction in FDI. Gastanaga, Nugent, and Pashamova (1998) focus on policy reforms in developing countries as determinants of foreign direct investment inflows. They employ both ordinary least squares as well as panel estimations and find that the degree of corruption is an important determinant of FDI into developing economies.[6] Political stability of a government can be another important factor fostering inflows of FDI.[7] Uncertain political environments and their related risks can impede FDI inflows in spite of favorable economic conditions. We incorporate the level of corruption and the level of government stability in our regressions to capture the effects of these institutional

[6] They also find corporate tax rates and degree of openness to foreign direct investment to be significant determinants of FDI.

[7] Other studies on economic and political stability are Schneider and Frey, 1985; Wang and Swain, 1995; Ramcharran, 1999; and Steve, 2000.

factors. The index of corruption assigns higher scores to less corrupt levels while the index of government stability assigns higher scores to more stability of government. As such, the expected signs of the corruption variable and the government stability variable are positive.

A hypothesis that better developed regions with a superior quality of infrastructure are more attractive to foreign firms relative to others is also examined. Some of the variables used as a proxy of infrastructure quality in the past studies are city lights, electricity consumption, railways (length and dummy), highway, dummy for airport, and number of telephone lines.[8] Due to the difficulty in data gathering, we only use the number of telephone mainlines per 1000 people in our regressions.

Also included in the analysis are policy-related variables: tariff barriers proxied by import duties, corporate tax rates, and the degrees of openness to foreign trade. The effect of tariffs on the behavior of multinational enterprises (MNEs) is demonstrated by Horst (1971) who predicts that in the face of higher tariffs imposed by the host countries, other things being equal, MNEs will decrease its exports and instead, increase its production abroad. More recent models highlight the effect of tariffs on FDI within the context of vertical and horizontal specialization within MNEs. A typical vertical FDI can be characterized by individual affiliates specializing in different stages of production of the output. The semi-finished products, in turn, are exported to other affiliates for further processing. By fragmenting the production process, parent firms and affiliates take advantage of factor price differentials across countries. Horizontal specialization on the other hand, involves each affiliate's engagement in similar types of production. Typically, horizontal FDI can be associated with market-seeking behavior and is

[8] See Head and Ries, 1996; Fung, Iizaka, and Parker, 2002; Hsiao and Shen, 2002.

motivated by lower trade costs. Choosing between engaging in horizontal FDI or exporting involve calculating the trade-off between trade costs and economies of scale. The MNEs, which set up vertical production networks may be encouraged to invest in a country with relatively low tariff barriers due to lower cost of their imported intermediate products. Therefore, the expected sign of import duty variable is negative in this case. In contrast, high tariff barriers induce firms to engage in horizontal FDI, and thus, replace exports with production abroad by foreign affiliates (Brainard, 1997; Carr, Markusen, and Maskus, 2001). This "tariff jumping" theory implies a positive relationship between import duty and FDI.

Various tax break regimes are often offered to multinationals as an incentive to attract FDI inflows because they have a direct impact on profitability of investment projects. Difficulties in finding a good measure of international taxation, due to small variations of tax changes in time series and potential correlation with other observed or unobserved explanatory variables, leads many empirical studies to find little or no support for relationship between taxes and FDI. According to Hines and Rice (1994) and Hines (1996),[9] taxes may indeed have little impact on FDI. There are, nevertheless, studies in favor of the relationship between taxes and the location of businesses.[10] Interestingly, Swensen (1994) empirically finds a significant positive effect of taxes on inward FDI. The variable included in our analysis to capture the effect of taxes is host country corporate income tax rate.

Openness is included to examine the important of trade liberalization to an economy. This variable measures the degree of general trade restrictions of each

[9] Additional studies that do not find effect of taxes on location of businesses are Carlton, 1983.
[10] Some of these are Bartik (1985), Helms (1985), Papke (1987, 1991), Newman and Sullivan (1988), Gastanaga *et al.* (1998), for instance.

country.[11] Following the same line of reasoning above, a negative relationship between openness and market-seeking FDI is expected, and a positive relationship is expected for export-oriented FDI.

3. The Empirical Model

This section provides the econometric methodology used to estimate the impact of China on the inward FDI to the eight East and Southeast (E&SE) Asian countries during 1985-2001. The economies consist of Hong Kong, Indonesia, Republic of Korea, Malaysia, Philippines, Singapore, Taiwan, and Thailand. Since our intention is to study the effect of China on FDI inflows to the E&SE Asian countries, we include the level of China FDI inflows as an additional explanatory variable along with variables discussed in the previous section. The investment diversion hypothesis means that an increase in China FDI inflows leads to a reduction of inflows to other Asian countries. But the same relationship also applies in the opposite direction, i.e., China FDI inflows are affected by other Asian countries FDI inflows. This reciprocal relationship between the FDI inflows of China and other Asian countries is captured by our random-effects simultaneous system of equations. Additionally, we assume for each FDI equation that there is an individual-specific collection of factors that are omitted from the regression. The model being estimated is thus:

$$AFDI_{i,t} = \alpha + \beta\, CHINA\_FDI_t + \boldsymbol{\lambda}'\mathbf{x}_{i,t} + u_i + e_{i,t} \tag{1}$$

$$CHINA\_FDI_t = \gamma + \delta\, AFDI_{i,t} + \boldsymbol{\rho}'\mathbf{z}_{i,t} + v_i + w_{i,t} \tag{2}$$

where the subscript "i" and "t" stand for country i and period t; $\boldsymbol{x}_{i,t}$ is a set of FDI determinants for Asian inward FDI of country i at time t; $\boldsymbol{z}_{i,t}$ is a set of determinants for the China FDI equation; u_i and v_i are country-specific terms which are assumed to be randomly distributed and $E(AFDI_{i,t}u_i)=0$ and $E(CHINA\_FDI_t v_i)=0$; $e_{i,t}$ and $w_{i,t}$ are disturbance terms. Variables in **x** consist of the eight E&SE Asian GDP growth, index of

[11] See Brainard, 1997, for example.

corruption level, import duties, index of government stability, illiteracy rate, capital income tax rate, average manufacturing wage, a proxy for infrastructure, and GDP per capita. Similarly, variables in **z** are determinants of China's FDI inflows.[12] These independent variables exert influences on inward FDI in each country of Asia and China by changing their investing environments through institutional and policy changes, and economic conditions. All variables are transformed into logarithms. Our random-effects model then is estimated using two-stage least square.

Our main variable of interest is the proxy for the China effect, CHINA_FDI. Two aspects should be considered here. First, in examining which low-wage export platform to locate, a multinational may choose between investing in China versus investing in another Asian country, say Thailand. In this case, the MNE will look for desirable characteristics in the host countries, such as wage rates, political risks, and infrastructure, that constitute to a low-cost production. Investing in China will then reduce inward FDI in Thailand. Accordingly, the sign of CHINA_FDI is expected to be negative. We shall call this the "investment-diversion effect".

A second aspect is the production and resource linkages between the growing China economies and the rest of Asia. In manufacturing, this takes the form of further specialization and growing fragmentation in the production processes. The MNE sets up

[12] $AFDI_{i,t}$: level of inward FDI in country i at time t.
$AGROWTH_{i,t}$: growth rate of GDP of country i at time t.
$ACORRUPT_{i,t}$: an index of corruption level of county i at time t.
$ADUTY_{i,t}$: import duty share of GDP of country i at time t.
$AWAGE_{i,t}$: average wage in manufacturing of country i at time t.
$AOPEN_{i,t}$: exports plus imports share of GDP of country i at time t.
$AILLIT_{i,t}$: percentage of people who are illiterate in country i at time t.
$ACPTAX_{i,t}$: corporate income tax rate of country i at time t.
$AGOV_{i,t}$: an index of government stability of country i at time t.
$ATEL_{i,t}$: number of telephone mainlines per 1,000 people of country i at time t.
$AINCOME_{i,t}$: per capita GDP of country i at time t.
$CHINA\_FDI_t$: inward foreign direct investment into China in year t.
$CGROWTH_t$: growth rate of GDP of China at time t.
$CCORRUPT_t$: an index of China corruption level at time t.
$CDUTY_t$: China import duty share of GDP at time t.
$CCPTAX_t$: China's corporate income tax rate at time t.
$CWAGE_t$: China's average wage in manufacturing at time t.
$COPEN_t$: China's exports plus imports share of GDP at time t.
$CGOV_t$: China's index of government stability at time t.
$CILLIT_t$: percentage of people who are illiterate in China at time t.
$CTEL_t$: number of telephone mainlines per 1,000 people in China at time t.
$CINCOME_t$: China's per capita GDP at time t.

factories in both China and Thailand to take advantage of each country's respective competitiveness in different stages of productions. Components and parts are then traded among China and other Asian economies. An increase in China's FDI inflows is then positively related to an increase in Thailand's FDI inflows. A different but complementary argument is that as China grows, its market size increases and its appetite for minerals and resources also rises. Subsequently, foreign firms rush to produce and sell in China. Meanwhile, other multinationals also invest in other parts of Asia, extracting minerals and resources to export to the fast growing China. This line of reasoning leads one to predict that the sign of CHINA_FDI to be positive. We call this effect the "investment-creation effect". Theoretically we cannot determine a prior the net effect of investment-creation and investment-diversion for China. It is thus important to examine this issue empirically, as we attempt to do in this paper.

4. Results

4.1 Regressions Using Levels of FDI inflows

Table 1 shows the results from the first set of random-effects simultaneous regressions using the level of FDI inflows as the dependent variable. To avoid multicollinearity problem, highly correlated variables are not included simultaneously. Specifically, any combination of *AWAGE*, *AINCOME*, and *ATEL* cannot be in the same specifications. For each of the dependent variables, there are five specifications. The effect of wage, *AWAGE*, is of interest in the first specification, column (1). In column (2), we look at infrastructure, *ATEL*. Column (3) examines *ATEL* by additionally excluding *AOPEN* due to their moderate correlation. The effect of *AINCOME* is studied in column (4) and (5). In each specification, a different set of instrument variables are implemented. These sets of instruments, consisting of Asian and China independent variables, pass collinearity and overidentification tests.

Our main variable of interest *CHINA_FDI* is positive and highly significant in all specifications. A 10 percent increase in the FDI inflows to China raises the level of FDI inflows to the East and Southeast (E&SE) Asian countries by approximately 5 to 6 percent depending on the specifications. Despite considerable concerns in policy circles that an increase in FDI flows to China is at an expense of other regional economies, this

study shows that those economies can actually benefit from it. This may be linked to the production-networking activities among Asian countries as well as the increased resource demand by a growing China. The evidence of production-networking among China and other Asian economies can be found in the substantial two-way trade of intermediate and final goods in the same industries among those countries (Arndt and Kierzkowski 2000). The economic ties of mutual dependence among them have been deepening rapidly since 1990s. The significance of the China effect in the level of FDI inflows to the group of E&SE countries may reflect such interdependence according to our empirical study, which shows that an increase in the level China's FDI is positively and significantly related to FDI inflows in other Asian economies. This result is robust even if we take Hong Kong out of our regressions. Our central result here is then as follows: so far the investment-enhancing effect dominates the investment-diversion effect such that on net China is a positive force for FDI inflows into other Asian economies.

The effect of tariff barriers is captured by *ADUTY* and is expected to have a positive effect on FDI inflows. When import duties are high, firms embark on FDI to circumvent high tariffs. So, we should see an increase in FDI when import duties are high. Notwithstanding its insignificance in almost all of the specifications, *ADUTY* reveals its marginally negative effect on FDI in equation (3). Many of the countries examined are heavily involved in vertical specialization, particularly in electric and electronics industries, which can be evidenced in the share of two-way trade in the same industry in the total volume of trade among the nations. A reduction in tariff barriers can stimulate FDI in the host country by lowering the costs associated with intra-firm input trade.

In contrast, *AOPEN* is always significant. Openness proxies degree of both tariff and non-tariff measures; the latter cannot be measured by *ADUTY*. These trade impediments can take various forms such as local content requirements, technology transfer requirements, domestic sales and export requirements, and so on. The result in Table 1 suggests that, all else being equal, the marginal effect of trade liberalization of the Asian countries on the inflow of FDI is almost twice as large as that of the China effect. Reductions in this type of trade barrier can play a vital role in promoting FDI to those countries.

In this model, the effect of tax incentive is captured by corporate tax rates. Although many studies find little supports for the effect of taxes on FDI, our results are in favor of this position. By far, corporate tax rate is the most influential tool to promote FDI inflows in our model. The coefficients of *ACPTAX* indicate that a 10 percent increase in corporate tax rate discourages FDI inflows by as much as 14 percent.

Unlike many of the previous studies, the growth rate of GDP does not appear to play an important role in attracting FDI in this analysis. On the other hand, per capita income is found to be a significant factor only in equation (5). This seems to suggest that the foreign investors are more sensitive to the current market size than with market potential for their products.

Infrastructure in the form of communications infrastructure, roughly measured by *ATEL*, is significant in column (3) but not (2) because *ATEL* is moderately correlated with *AOPEN*. Although communication infrastructure appears to be a favorable characteristic for the foreign investors, in terms of the magnitude, other key variables in the equation overshadow the effect of communications infrastructure.

Evidence of a relatively large positive effect of illiteracy on FDI found in equations 3 and 5 is puzzling. One reason for this relationship may be that FDI in the region tend to seek out cheap labor, which the rate of illiteracy may pick up.

The degree of government stability and the index of corruption, *AGOV* and *ACORRUPT*, are found to be always positive associated with the level of FDI[13]. However, neither of the institutional factors appears to be an important factor. In other words, higher corruption or higher government instability is unlikely to significantly discourage FDI in this group of countries.

Table 1: Random-effects 2SLS (level of FDI = the dependent variable)

Independent Variables	(1)[(a)]	(2)[(b)]	(3)[(c)]	(4)[(d)]	(5)[(e)]
CHINA_FDI	0.5575	0.5559	0.5794	0.4877	0.5899
	(8.276)***	(7.989)***	(7.518)***	(7.528)***	(8.142)***
AGROWTH	0.7186	0.8158	0.4212	0.5370	0.4895
	(0.904)	(1.030)	(0.481)	(0.681)	(0.568)
ACORRUPT	0.1076	0.1538	0.4679	0.0672	0.3748

[13] A higher index of corruption indicates smaller level of corruption and thus has positive relationship with FDI inflows. A higher index of government stability means more stability. We expect it to also have positive effects on FDI inflows.

	(0.451)	(0.626)	(1.765)*	(0.278)	(1.489)
ADUTY	0.1266	0.1538	-0.3841	0.1130	-0.1740
	(0.605)	(0.738)	(1.899)*	(0.525)	(0.780)
AGOV	0.0207	0.0500	-0.0106	0.0661	-0.0191
	(0.123)	(0.284)	(0.054)	(0.393)	(0.103)
AWAGE	-0.1493				
	(1.274)				
AOPEN	0.9792	1.0125		0.8725	
	(5.562)***	(5.117)***		(4.710)***	
AILLIT	0.1336	0.1543	0.4977	0.2128	0.5706
	(0.753)	(0.857)	(2.753)***	(1.243)	(3.253)***
ACPTAX	-1.2845	-1.3681	-0.4392	-1.1891	-0.4727
	(3.381)***	(3.448)***	(1.125)	(3.098)***	(1.231)
ATEL		-0.1155	0.1830		
	(1.208)	(2.226)**			
AINCOME				-0.0015	0.3163
	(0.012)	(2.954)***			
Constant	1.9097	1.4383	1.1115	1.7790	-0.8878
	(1.171)	(0.947)	(0.662)	(1.033)	(0.482)
R^2	0.6874	0.6868	0.6129	0.6859	0.6233
F-test: p-value	0.0000	0.0000	0.0000	0.0000	0.0000
Observations	130	131	131	131	131

Absolute value of t statistics in parentheses
* significant at 10%; ** significant at 5%; *** significant at 1%
(a) Instruments: AGROWTH ACORRUPT ADUTY AGOV AWAGE AOPEN AILLIT ACPTAX CDUTY
(b) Instruments: AGROWTH ACORRUPT ADUTY AGOV AOPEN AILLIT ACPTAX ATEL CDUTY
(c) Instruments: AGROWTH ACORRUPT ADUTY AGOV AILLIT ACPTAX ATEL CGOV CWAGE
(d) Instruments: AGROWTH ACORRUPT ADUTY AGOV AOPEN AILLIT ACPTAX AINCOME CGOV COPEN
(e) Instruments: AGROWTH ACORRUPT ADUTY AGOV AILLIT ACPTAX AINCOME CDUTY

4.2 Regressions Using Shares of FDI inflows to Asian Countries

The model in this section uses shares of FDI inflows to the Asian countries as the dependent variable in equation (1). Also note that the dependent variable in the China equation (2) is still the level of China FDI. We could also use China's shares of FDI of the Asian countries instead of the level of China FDI. However, between the years 1985 and 2001, China and these East and Southeast Asian countries accounted for 89% of total inflow of FDI to Asia. Then, an increase in the share of FDI inflow to China will almost ensure a reduction in the shares of FDI inflows to those eight economies. To avoid this, we continue to use the predicted level of China FDI inflows so as to see how much of these increases divert the shares of the Asian FDI from those E&SE Asian countries.

Given that direct investment inflows into China and our eight Asian economies constitute a bulk of direct investment into Asia, it may not be entirely surprising to find

that of China's inward foreign direct investment will affect the shares of our economies' foreign direct investment into the whole of Asia. Nonetheless it is still useful to actually estimate the impact. It is evident from our regressions that an increase in FDI to China will undoubtedly deteriorate the FDI stance of the Asian countries in terms of their shares of FDI within Asia. A 10 percent increase in China's FDI causes the E&SE Asian shares of FDI to Asia to drop by about 2 to 2.5 percent. Although China does appear to take a bigger share of FDI at the expense of its neighboring countries, FDI promotion could come from the internal economic policy of each country such as the level of corporate tax rate and the degree of openness in foreign trade. The influence of openness on FDI is more than four times as large as the China effect in equation (1), (2) and (4). Similarly, the influence of corporate tax rate on FDI inflows can be as high as five times higher than that of the China effect.

Also evident from the table is a much larger and more significant effect of corruption than what we observed in Table 1. A 10 percent decrease in the degree of corruption can increase a country's share of Asian FDI anywhere from 2.5 to 6.4 percentage, depending on the specification of the equation.

Interestingly, communication infrastructure variables exerts roughly the same influence on a country's share of FDI to Asia as on a country's level of FDI inflows.

Table 2: Random-effects 2SLS (country's share of FDI to Asia = the dependent variable)

Independent Variables	(1)[a]	(2)[b]	(3)[c]	(4)[d]	(5)[e]
CHINA_FDI	-0.2490	-0.2544	-0.1907	-0.2340	-0.2111
	(4.351)***	(4.333)***	(2.961)***	(4.058)***	(3.435)***
AGROWTH	0.4417	0.5401	0.3208	0.5170	0.2862
	(0.622)	(0.767)	(0.414)	(0.725)	(0.376)
ACORRUPT	0.3220	0.3890	0.6357	0.2483	0.5328
	(1.506)	(1.778)*	(2.703)***	(1.136)	(2.393)**
ADUTY	0.0112	0.0419	-0.4143	0.0291	-0.2380
	(0.060)	(0.225)	(2.307)**	(0.149)	(1.207)
AGOV	0.2050	0.2505	0.1500	0.1696	0.1605
	(1.372)	(1.610)	(0.879)	(1.116)	(0.988)
AWAGE	-0.1441				
	(1.372)				
AOPEN	0.8306	0.9051		0.7168	
	(5.261)***	(5.136)***		(4.276)***	
AILLIT	0.1368	0.1197	0.4705	0.2845	0.5231
	(0.865)	(0.754)	(2.958)***	(1.840)*	(3.389)***
ACPTAX	-1.1311	-1.2531	-0.4260	-1.0378	-0.4396

	(3.319)***	(3.540)***	(1.226)	(2.988)***	(1.293)
ATEL		-0.1417	0.1335		
	(1.667)*	(1.828)*			
AINCOME				0.0052	0.2606
	(0.048)	(2.750)***			
Constant	3.2639	2.9372	2.1542	2.2228	0.7235
	(2.257)**	(2.200)**	(1.466)	(1.432)	(0.447)
R^2	0.5687	0.5757	0.4802	0.5650	0.4984
F-test: p-value	0.0000	0.0000	0.0000	0.0000	0.0000
Observations	130	131	131	131	131

Absolute value of t statistics in parentheses. * significant at 10%; ** significant at 5%; *** significant at 1%

(a) Instruments: AGROWTH ACORRUPT ADUTY AGOV AWAGE AOPEN AILLIT ACPTAX CDUTY CGOV CCORRUPT CTEL

(b) Instruments: AGROWTH ACORRUPT ADUTY AGOV AOPEN AILLIT ACPTAX ATEL CDUTY CGOV CCORRUPT CINCOME

(c) Instruments: AGROWTH ACORRUPT ADUTY AGOV AILLIT ACPTAX ATEL CCORRUPT COPEN CINCOME

(d) Instruments: AGROWTH ACORRUPT ADUTY AGOV AOPEN AILLIT ACPTAX AINCOME CDUTY CGOV CCORRUPT CINCOME

(e) Instruments: AGROWTH ACORRUPT ADUTY AGOV AILLIT ACPTAX AINCOME CDUTY CGOV CCORRUPT CINCOME

4.3 Regressions Using Shares of FDI Inflows to Developing Countries

The dependent variable of regressions in table 3 is share of developing countries FDI. In this section, the negative effect of *CHINA_FDI* is still present and highly significant but at smaller magnitudes. China may not divert the pool of FDI inflows going to developing countries away from the E&SE Asian countries as much as it takes away part of the FDI going into the Asian countries. When considering a destination for their investment projects in a developing countries, multinationals may perceive all the E&SE Asian countries, including China, to be very similar destinations comparing to other parts of the world, such as Latin America. Thus, the China effect on country's share of FDI inflows to developing countries is smaller than the one in the previous model. On average, a 10 percent increase in *CHINA_FDI* reduce shares of the E&SE Asian by 1.7 to 2.2 percent.

Corruption and corporate tax rate possess the same but slightly higher effect on the country share of FDI going to developing countries than they do on FDI going to Asian countries. On the other hand, the coefficients of openness display lower magnitudes than before. Income is also significant, again, in the absence of openness. The coefficients of illiteracy rate, despite their negative signs, pick up higher effect in this

shares of inflows to developing countries model than they do in the model of shares of Asian inflows.

Table 3: Random-effects 2SLS (country's share of FDI to developing countries = dependent variables.)

Independent Variables	(1)[a]	(2)[b]	(3)[c]	(4)[d]	(5)[e]
CHINA_FDI	-0.1979	-0.2246	-0.1646	-0.1961	-0.1673
	(3.177)***	(3.530)***	(2.489)**	(3.196)***	(2.634)***
AGROWTH	0.5666	0.5948	0.3724	0.5836	0.3960
	(0.757)	(0.802)	(0.464)	(0.781)	(0.505)
ACORRUPT	0.3861	0.4770	0.7206	0.3031	0.5605
	(1.717)*	(2.073)**	(2.963)***	(1.324)	(2.443)**
ADUTY	0.0458	0.0666	-0.3817	0.0771	-0.1644
	(0.232)	(0.341)	(2.056)**	(0.378)	(0.809)
AGOV	0.0757	0.1445	0.0488	0.0461	0.0300
	(0.480)	(0.879)	(0.277)	(0.289)	(0.179)
AWAGE	-0.1177				
	(1.066)				
AOPEN	0.7935	0.8867		0.6588	
	(4.782)***	(4.785)***		(3.754)***	
AILLIT	0.2083	0.1525	0.4936	0.3595	0.5858
	(1.249)	(0.909)	(3.003)***	(2.215)**	(3.683)***
ACPTAX	-1.1884	-1.3277	-0.5172	-1.0745	-0.5260
	(3.319)***	(3.570)***	(1.439)	(2.955)***	(1.502)
ATEL		-0.1415	0.1277		
	(1.581)	(1.690)*			
AINCOME				0.0501	0.2856
	(0.448)	(2.926)***			
Constant	2.3066	2.3644	1.6255	1.2224	-0.2437
	(1.507)	(1.672)*	(1.072)	(0.750)	(0.146)
R^2	0.5399	0.5486	0.4635	0.5403	0.4868
F-test: p-value	0.0000	0.0000	0.0000	0.0000	0.0000
Observations	130	131	131	131	131

Absolute value of t statistics in parentheses
* significant at 10%; ** significant at 5%; *** significant at 1%
(a) Instruments: AGROWTH ACORRUPT ADUTY AGOV AWAGE AOPEN AILLIT ACPTAX COPEN CINCOME
(b) Instruments: AGROWTH ACORRUPT ADUTY AGOV AOPEN AILLIT ACPTAX ATEL CGROWTH COPEN CTEL
(c) Instruments: AGROWTH ACORRUPT ADUTY AGOV AILLIT ACPTAX ATEL CCORRUPT COPEN CTEL
(d) Instruments: AGROWTH ACORRUPT ADUTY AGOV AOPEN AILLIT ACPTAX AINCOME CGOV COPEN
(e) Instruments: AGROWTH ACORRUPT ADUTY AGOV AILLIT ACPTAX AINCOME CGROWTH CCORRUPT CTEL

4.4 Regressions Using Share of the World FDI Inflows

In this last model, the dependent variable is country's share of FDI to the world. Although the eight E&SE Asian countries account for a bulk of FDI going to Asia, their shares in the pool of FDI inflows to the world is only marginal. Therefore, it is only rational that the presence of China does not greatly affect the E&SE Asian shares of the world FDI inflows. In fact, our results show that none of the *CHINA_FDI* coefficients is significant.

Now that *CHINA_FDI* has lost its influential momentum on shares of world FDI inflows, many variables have gained their significance. Corruption has become much more significant in all the specifications. The coefficient magnitudes have increased more than twice and almost three times higher in some cases. A 10 percent improvement in corruption index[14] increases a country's share of world FDI inflows somewhere from 6.2 percent to 10 percent. Other factors that remain important are openness, capital income tax rate, income, and illiteracy rate. Openness loses while illiteracy rate acquires greater influences on the dependent variable. The effect of market size, seen by significant *AINCOME* in the last column, stays at about the same level as in the previous two models.

Table 4: Random-effects 2SLS (country's share of FDI to the world = dependent variable)

Independent Variables	(1)[(a)]	(2)[(b)]	(3)[(c)]	(4)[(d)]	(5)[(e)]
CHINA_FDI	-0.0052	-0.0166	0.0288	-0.0084	-0.0019
	(0.078)	(0.246)	(0.416)	(0.131)	(0.029)
AGROWTH	0.5220	0.5743	0.4225	0.4853	0.3557
	(0.661)	(0.736)	(0.521)	(0.621)	(0.451)
ACORRUPT	0.7288	0.8331	1.0057	0.6203	0.7639
	(3.072)***	(3.440)***	(4.094)***	(2.593)**	(3.314)***
ADUTY	0.0013	0.0192	-0.3006	0.0650	-0.0700
	(0.006)	(0.094)	(1.604)	(0.305)	(0.343)
AGOV	0.0451	0.1012	0.0300	0.0099	0.0102

[14] A 10 percent less corruption.

	(0.270)	(0.584)	(0.167)	(0.059)	(0.060)
AWAGE	-0.0513				
	(0.441)				
AOPEN	0.5164	0.6354		0.3556	
	(2.951)***	(3.257)***		(1.939)*	
AILLIT	0.4283	0.3428	0.5898	0.5845	0.6985
	(2.428)**	(1.938)*	(3.537)***	(3.445)***	(4.358)***
ACPTAX	-1.1093	-1.2686	-0.6879	-0.9633	-0.6657
	(2.937)***	(3.241)***	(1.898)*	(2.535)**	(1.893)*
ATEL		-0.1251	0.0683		
	(1.327)	(0.896)			
AINCOME				0.1361	0.2624
	(1.164)	(2.677)***			
Constant	-1.0717	-0.8328	-1.3903	-2.3720	-3.0613
	(0.662)	(0.558)	(0.901)	(1.391)	(1.819)*
R^2	0.4999	0.5107	0.4665	0.5087	0.4935
F-test: p-value	0.0000	0.0000	0.0000	0.0000	0.0000
Observations	130	131	131	131	131

Absolute value of t statistics in parentheses
* significant at 10%; ** significant at 5%; *** significant at 1%
(a) Instruments: AGROWTH ACORRUPT ADUTY AGOV AWAGE AOPEN AILLIT ACPTAX CGROWTH CDUTY COPEN
(b) Instruments: AGROWTH ACORRUPT ADUTY AGOV AOPEN AILLIT ACPTAX ATEL CDUTY CCORRUPT CWAGE
(c) Instruments: AGROWTH ACORRUPT ADUTY AGOV AILLIT ACPTAX ATEL CGROWTH CDUTY CCORRUPT CWAGE
(d) Instruments: AGROWTH ACORRUPT ADUTY AGOV AOPEN AILLIT ACPTAX AINCOME CGROWTH CGOV
(e) Instruments: AGROWTH ACORRUPT ADUTY AGOV AILLIT ACPTAX AINCOME CGOV CWAGE

5. Robustness Check

A robustness check is performed on the same set of dependent and independent variables in a *fixed-effect* 2SLS and a *pooled* 2SLS framework. The results are included in Appendix C. The China effect in both frameworks shows similar positive effects for each of the five model specifications. Additionally, in these two frameworks, the China effect is also significant at 5 or 10 percent when the dependent variable is a country's share of world FDI inflows. The magnitudes of the China effects in the fixed-effect framework are much larger. In some, but not all, specifications of the fixed-effect

framework the China effect has larger influence on the E&SE Asian shares of the world inflows than it has on shares of developing countries' inflows.

We also check the robustness of our model when Hong Kong is *not* included in the data. Investment from Hong Kong to China has increased dramatically since the early 1980s. Hong Kong is by far the largest foreign investor in China. However, it has been frequently said that a significant portion of the investment from Hong Kong to China originates from China itself or from countries outside Hong Kong. Much of China's capital outflow that takes place either through legal or illegal channels to Chinese firms located in Hong Kong finds it's way back to China as FDI. This type of roundtrip funds is mostly used to escape regulations such as barriers to trade or to gain eligibility to incentives available to only foreign investors (e.g. tax concessions). According to the World Bank (2002), round-tripping accounts for twenty to thirty percent of FDI in China. Hong Kong is also used as a stepping stone for investment to China. A large number of foreign firms use affiliates in Hong Kong to investment in China on their behalf. This unconventional activities through Hong Kong might make the scenario seemingly as if China receives more FDI inflows.

To evaluate if the Hong Kong's peculiar position leads to the different results in our analysis, we eliminate Hong Kong from our sample countries and reexamine the panel analysis. If the unusual activities in Hong Kong do contribute significantly to an increase in FDI inflows to China and a decline in FDI inflows to the eight E&SE Asian countries. Interestingly, we find that the results for all eight countries generally hold for the analysis without Hong Kong[15]. The China effect has a significant positive effect on Asian FDI, confirming that there is no diversionary China effect in terms of the level of

[15] Results are available upon request.

FDI inflow to its Asian neighbors. On the other hand, FDI inflow can be greatly promoted by reducing the level of corporate income tax, and by increasing the degree of openness in international trade through lowering tariff and non-tariff barriers as well as abolishing various trade impediments. The importance of establishing a large market is also evident. Corruption appears to have a larger and more significant influence on FDI inflows when the panel is analyzed without Hong Kong. This may be attributed to the fact that Hong Kong demonstrates the lowest level of corruption on average among all countries examined. The importance of the variable may be higher among less corrupt economies. Our robustness check reaffirms that the China effect is important in the a fixed-effect 2SLS and a pooled 2SLS framework as well as when Hong Kong is not included.

6. Conclusion

We use data for eight Asian economies (Hong Kong, Taiwan, Republic of Korea, Singapore, Malaysia, Philippines, Indonesia and Thailand) from 1985-2001 and estimate the determinants of foreign direct investment inflows in these economies. The standard determinants we consider include GDP growth rates, the degree of openness, corporate tax rates, indices of corruption, degrees of government stability, illiteracy rates, per capita GDP, tariff rates, wage rates and proxies of infrastructure. To estimate the China effects, we include in the econometric equations the levels of China's inward foreign direct investment. As China's foreign direct investment should also be dependent on foreign direct investment in other Asian economies and other similar policy and institutional factors. We test whether China has diverted away FDI inflows from the eight E&SE

Asian countries using a random-effect, a fixed effect and a pooled two-stage least square framework.

Our results indicate that the China effect is a significant influence in three of the models. The main results are following: (1) the level of China's FDI is positively related to the levels of these economies' inward direct investments; (2) the level of China's FDI is negatively related to these economies' shares of total Asian inward FDI and shares of total FDI inflows to the developing countries; and (3) the "China Effect" is not the most important determinant of inward direct investments to these economies. Policy and institutional factors seem to be more important.

References

Agarwal, J. P. 1980. "Determinants of Foreign Direct Investment: A Survey." *Weltwirtschaftliches Archiv*, 116, pp. 739-73.

Arndt, S. and H. Kierzkowski. (eds.) 2000. Frangmentation: New Production Patterns in the World Economy. Oxford: Oxford University Press.

Bajo-Rubio, O. and S. Sosvilla-Rivero. 1994. "An Econometric Analysis of Foreign Direct Investment in Spain, 1964-89." *Southern Economic Journal*, 61, pp. 104-20.

Bao, S., G. H. Chang, J. D. Sachs, and W. T. Woo, 2002. "Geographic Factors and China's Regional Development Under Market Reforms, 1978-1998." *China Economic Review,* 13, 1, pp. 89-111.

Barrell, R. and N. Pain. 1996. "An Econometrics Analysis of U.S. Foreign Direct Investment." *Review of Economics and Statistics*, 78, pp. 200-7.

Bartik, T. J. 1985. "Business Location Decisions in the United States: Estimates of the Effects of Unionization, Taxes and Other Characteristics of States." *Journal of Business and Economic Statistics*, 3, pp. 14-22.

Brainard, L. S. 1997. "An Empirical Assessment of the Proximity-Concentration Trade-off Between Multinational Sales and Trade." *The American Economic Review*, 87:4, pp. 520-44.

Carr, D. L., James R. M., and K. E. Maskus. 2001. "Estimating the knowledge-capital model of the multinational enterprise." *The American Economic Review*, 91, pp. 693-708.

Carlton, D. W. 1983. "The Location and Employment Choices of New Firms: An Econometric Model with Discrete and Continuous Endogenous Variables." *Review of Economics and Statistics*, 65, pp. 440-9.

ChinaOnline, "China's Rise is the Most Dramatic Change in Asia," November 14, 2002.

Fung, K.C., H. Iizaka and Alan Siu. 2003. "Japanese Direct Investment in China." *China Economic Review*, 14, pp.304-315.

Fung, K.C., H. Iizaka and S. Parker. 2002. "Determinants of U.S. and Japanese Foreign Direct Investment in China." *Journal of Comparative Economics*, 30, pp.567-578.

Fung, K.C., Lawrence J. Lau and Joseph Lee, 2004. United States Direct Investment in China, Washington, D.C.: AEI Press, forthcoming.

Gastanaga, V. M., J. B. Nugent, and B. Pashamova. 1998. "Host Country Reforms and FDI Inflows: How Much Difference Do They Make?" *World Development*, 26:7, pp. 1299-314.

Head, K. and J. Ries. 1996. "Inter-City Competition for Foreign Investment: Static and Dynamic Effects of China's Incentive Areas." *Journal of Urban Economics*, 40, pp. 38-60.

Helms, L. J. 1985. "The Effect of State and Local Taxes on Economic Growth: A Time Series Cross Section Approach." *Review of Economics and Statistics*, 67, pp. 574-82.

Hines, J. R. Jr. 1995. "Forbidden Payment: Foreign Bribery and American Business After 1977." NBER Working Paper No. 5266.

Hines, J R. Jr. 1996. "Altered States: Taxes and the Location of Foreign Direct Investment in America." *The American Economic Review*, 86:5, pp. 1076-94.

Hines, J. R. Jr. and Er. M. Rice. 1994. "Fiscal Paradise: Foreign Tax Havens and American Business." *The Quarterly Journal of Economics*, 109:1, pp. 149-82.

Horst, T. 1971. "The Theory of the Multinational Firm: Optimal Behavior under Different Tariff and Tax Rates." *Journal of Political Economy*, 79(5), pp. 1959-72.

Hsiao, C. 2001. "Efficient Estimation of Dynamic Panel Data Models – with an Application to the Analysis of Foreign Direct Investment to Developing Countries." Paper prepared for the 2001 Econometric Society Far Eastern Meeting in Kobe, Japan.

Korea Times, "Foreign Investment Likely to Fall," August 27, 2002.

Kravis, I. B. and R. E. Lipsey. 1982. "The Location of Overseas Production and Production for Exports by US Multinational Firms." *Journal of International Economics*, 12, pp. 201-23.

Lim, Ewe-Ghee. 2001. "Determinants of and the Relation Between Foreign Direct Investment and Growth: A Summary of the Recent Literature." IMF Working Paper WP/01/175.

Lipsey, R. E. 2000. "Interpreting Developed Countries' Foreign Direct Investment." NBER Working Paper No. 7810.

Love, J. H. and F. Lage-Hidalgo. 2000. "Analysing the Determinants of US Direct Investment in Mexico." *Applied Economics*, 32, pp. 1259-67.

Lucas, R. E. 1993. "On the Determinants of Direct Foreign Investment: Evidence from East and Southeast Asia." *World Development*, 21:3, pp. 391-406.

Lucas, R. E. 1998. “On the Mechanics of Economic Development.” *Journal of Monetary Economics*, 22, 3-42.

Markusen, J. 1998. “Contracts, Intellectual Property Rights, and Multinational Investment in Developing Countries,” NBER Working Paper 6448.

Markusen, J. and K. Maskus 1999. “Discriminating Among Alternative Theories of the Multinational Enterprises.” NBER working paper 7164.

Moore, M. O. 1993. "Determinants of German Manufacturing Direct Investment in Manufacturing Industries." *Weltwirtschaftliches Archiv*, 129, pp. 120-37.

Moosa, I. A. 2002. Foreign Direct Investment Theory, Evidence and Practice. Haundmills, Basingstoke, Hampshire, New York: Palgrave.

New Straits Times-Management Times. “Future Flows of FDI into Asian Economies to depend on China,” March 9, 2002.

Newman, R. J. and D. H. Sullivan. 1988. "Econometric Analysis of Business Tax Impacts on Industrial Location: What Do We Know, and How Do We Know It?" *Journal of Urban Economics*, 23, pp. 215-34.

Papke, L. E. 1987. "Subnational Taxation and Capital Mobility: Estimates of Tax-Price Elasticities." *National Tax Journal*, 40, pp. 191-204.

Papke, L. E. 1991. "Interstate Business Tax Differentials and New Firm Location." *Journal of Public Economics*, 45, pp. 47-68.

Saunders, R. 1983. "The Determinants of Interindustry Variation of Foreign Ownership in Canadian Manufacturing." *Canadian Journal of Economics*, 15, pp. 77-84.

Schneider, F, and B. S. Frey. 1985. "Economic and Political Determinants of Foreign Direct Investment." *World Development*, 13, pp. 161-75.

Swenson, D. L. 1994. "The Impact of U.S. Tax Reform on Direct Investment in the United States." *Journal of Public Economics*, 54, pp. 243-66.

Taiwanese Central News Agency. “Taiwan to Improve Competitiveness.” November 21, 2002.

Wang, Z. Q. and N. J. Swain. 1995. "The Determinants of Foreign Direct Investment in Transforming Economies: Empirical Evidence from Hungary and China." *Weltwirtschaftliches Archiv*, 131, pp. 359-82.

Wei, S. 1997. “Why is Corruption so much more Taxing than Tax? Arbitrariness Kills.” NBER Working Paper No. 6255.

Wheeler, D. and A. Mody. 1990. Risk and Rewards in International Location Tournaments: The Case of US Firms. Washington DC: The World Bank.

World Bank. 2002. "Global Development Finance 2002," pp. 41, Washington, D.C.

Zhang, K. H. and S. Song, 2001, " Promoting Exports: The Role of Inward FDI in China." *China Economic Review*, 12, 1, pp. 385-396.

Appendix A: Definition and source of variables.

AFDI and *CHINA_FDI*: Aggregate FDI inflows of each country, aggregate FDI inflows to Asia, aggregate FDI inflows to developing countries, and aggregate FDI to the world are from UNCTAD.

AGROWTH and *CGROWTH*: Measured in percentage point. Data are from EconStats.

ACORRUPT and *CCORRUPT:* An index of corruption from International Country Risk Guide (ICRG) - the PRS Group. It ranges from 0 to 6, where a higher number means a lower level of corruption.

ADUTY and *CDUTY:* Import duty share of GDP. Import duties are from IMF's *Government Finance Statistic Yearbook.*

AGOV and *CGOV:* An index of government stability from International Country Risk Guide (ICRG) from the PRS Group. The range is from 0 to 12. A higher score means higher stability of a government.

AOPEN and *COPEN:* Openness = (Export + Import)/ GDP. Export and Import data are from IMF's *Direction of Trade*.

ACPTAX and *CCPTAX:* Corporate tax rate, measured in percentage points, from *Price Waterhouse'*s "Worldwide summary" book.

AWAGE and *CWAGE:* Average wages in manufacturing; from UN Common Database, LABORSTA, and countries' official websites.

AILLIT and *CILLIT:* Illiteracy rate is the percentage of people ages 15 and above who cannot, with understanding, read and write a short, simple statement on their everyday life; from *World Development Indicators*.

ATEL and *CTEL:* Telephone mainlines (per 1,000 perople) from *World Development Indicators*.

AINCOME and *CINCOME*: per capita GDP = (GDP/population). GDP data are from EconStats. Population data are from *World Development Indicators*.

Appendix B1: List of countries in Asia*

Israel, Japan, Bahrain, Cyprus, Iran (Islamic Rep. of), Iraq, Jordan, Kuwait, Lebanon, Oman, Palestinian territory, Oatar, Saudi Arabia, Syrian Arab Republic, Turkey, United Arab Emirates, Yemen, Armenia, Azerbaijan, Georgia, Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, Uzbekistan, Bangladesh, Bhutan, Brunei Darussalam, Cambodia, China, China Hong Kong SAR, China Macao SAR, China (Taiwan Province of), India, Indonesia, Korea (Dem. People's Rep. of), Korea (Republic of), Lao People's Dem. Rep., Malaysia, Maldives, Mongolia, Myanmar, Nepal, Pakistan, Philippines, Singapore, Sri Lanka, Thailand, Viet Nam

Appendix B2: List of developing countries*

Algeria, Egypt, Libyan Arab Jamahiriya, Morocco, Sudan, Tunisia, Angola, Benin, Botswana, Burkina Faso, Burundi, Cameroon, Cape Verde, Central African Republic, Chad, Comoros, Congo, Dem. Rep. of the Congo, Côte d'Ivoire, Djibouti, Equatorial Guinea, Eritrea, Ethiopia, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Kenya, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritania, Mauritius, Mozambique, Namibia, Niger, Nigeria, Rwanda, Sao Tome and Principe, Senegal, Seychelles, Sierra Leone, Somalia, South Africa, Swaziland, Togo, Uganda, United Republic of Tanzania, Zambia, Zimbabwe, Argentina, Bolivia, Brazil, Chile, Columbia, Ecuador, Guyana, Paraguay, Peru, Suriname, Uruguay, Venezuela, Anguilla, Antigua and Barbuda, Aruba, Bahamas, Barbados, Belize, Bermuda, British Virgin Islands, Cayman Islands, Costa Rica, Cuba, Dominica, Dominican Republic, El Salvador, Grenada, Guatemala, Haiti,

Honduras, Jamaica, Mexico, Montserrat, Netherlands Antilles, Nicaragua, Panama, and the Asian developing countries listed above.

* Definitions are from UNCTAD.

Appendix C: Results of fixed-effects and pooled 2SLS regressions

Fixed-effect 2SLS Framework

Table 5: Fixed-effects 2SLS (Level of FDI = dependent variable)

Independent Variables	(1)[a]	(2)[b]	(3)[c]	(4)[d]	(5)[e]
CLNFDI	1.2600	0.7902	-0.7410	-0.6336	1.7393
	(2.730)***	(3.004)***	(2.141)**	(2.742)***	(2.048)**
AGROWTH	0.0536	0.2627	-0.6592	-0.6908	0.6906
	(0.057)	(0.311)	(0.758)	(0.945)	(0.606)
ACORRUPT	-0.3818	0.0563	0.6442	0.5800	-0.5341
	(1.013)	(0.195)	(2.020)**	(2.489)**	(1.037)
ADUTY	2.4798	1.4912	2.4668	1.7399	2.1889
	(4.155)***	(2.634)***	(4.826)***	(4.188)***	(3.537)***
AGOV	-0.2576	-0.0673	0.2611	0.3658	-0.4785
	(1.041)	(0.355)	(1.328)	(2.061)**	(1.210)
AWAGE	-1.5434				
	(2.047)**				
AOPEN	-0.5777	1.1034		1.0746	
	(0.798)	(1.917)*		(2.577)**	
AILLIT	0.0339	-0.0732	-6.6410	-3.6253	1.4084
	(0.023)	(0.058)	(4.064)***	(4.450)***	(0.599)
ACPTAX	-0.5646	-0.4428	-0.6582	-0.2448	-0.7097
	(0.870)	(0.785)	(1.152)	(0.488)	(0.962)
ATEL		-0.5980	0.5201		
	(1.272)	(1.445)			
AINCOME				1.6576	-2.1739
	(3.449)***	(1.658)			
Constant	8.0065	-2.0505	24.8624	0.5300	7.6981
	(1.163)	(0.344)	(3.807)***	(0.098)	(1.366)
R^2	0.0756	0.0519	0.0039	0.1079	0.0835
F-test: p-value	0.0000	0.0000	0.0000	0.0000	0.0000
Observations	130	131	131	131	131

Absolute value of t statistics in parentheses
* significant at 10%; ** significant at 5%; *** significant at 1%
(a) Instruments: AGROWTH ACORRUPT ADUTY AGOV AWAGE AOPEN AILLIT ACPTAX CDUTY
(b) Instruments: AGROWTH ACORRUPT ADUTY AGOV AOPEN AILLIT ACPTAX ATEL CDUTY
(c) Instruments: AGROWTH ACORRUPT ADUTY AGOV AILLIT ACPTAX ATEL CGOV CWAGE
(d) Instruments: AGROWTH ACORRUPT ADUTY AGOV AOPEN AILLIT ACPTAX AINCOME CGOV COPEN
(e) Instruments: AGROWTH ACORRUPT ADUTY AGOV AILLIT ACPTAX AINCOME CDUTY

Table 6: Fixed-effects 2SLS (country's share of FDI to Asia = dependent variable)

Independent Variables	(1)[a]	(2)[b]	(3)[c]	(4)[d]	(5)[e]
CLNFDI	-0.3633	-0.3608	-0.3695	-0.4516	-0.4153
	(2.665)***	(2.921)***	(2.911)***	(2.757)***	(2.602)**
AGROWTH	-0.1838	-0.1169	-0.1191	-0.2252	-0.1288
	(0.284)	(0.177)	(0.181)	(0.345)	(0.201)
ACORRUPT	0.3005	0.3249	0.2791	0.3194	0.3091
	(1.496)	(1.463)	(1.293)	(1.588)	(1.538)
ADUTY	1.9442	1.7215	1.8373	1.7661	1.8261

	(4.958)***	(4.008)***	(4.733)***	(4.735)***	(5.019)***
AGOV	0.2116	0.2252	0.2312	0.2531	0.2488
	(1.433)	(1.547)	(1.597)	(1.651)	(1.622)
AWAGE	-0.2950				
	(0.881)				
AOPEN	-0.1039	0.2811		0.2700	
	(0.242)	(0.668)		(0.733)	
AILLIT	-1.9779	-1.5208	-1.5217	-1.4954	-1.6887
	(2.779)***	(2.148)**	(2.086)**	(2.175)**	(2.688)***
ACPTAX	-0.4223	-0.3661	-0.3888	-0.3123	-0.3945
	(0.945)	(0.821)	(0.877)	(0.693)	(0.905)
ATEL		-0.1201	0.0180		
	(0.352)	(0.068)			
AINCOME				0.1930	0.0537
	(0.512)	(0.161)			
Constant	10.1984	6.1568	6.8892	4.6408	7.2719
	(2.159)**	(1.712)*	(2.053)**	(0.955)	(2.229)**
R^2	0.2155	0.1449	0.1567	0.0619	0.1416
F-test: p-value	0.0000	0.0000	0.0000	0.0000	0.0000
Observations	130	131	131	131	131

Absolute value of t statistics in parentheses
* significant at 10%; ** significant at 5%; *** significant at 1%
(a) Instruments: AGROWTH ACORRUPT ADUTY AGOV AWAGE AOPEN AILLIT ACPTAX CDUTY CGOV CCORRUPT CTEL
(b) Instruments: AGROWTH ACORRUPT ADUTY AGOV AOPEN AILLIT ACPTAX ATEL CDUTY CGOV CCORRUPT CINCOME
(c) Instruments: AGROWTH ACORRUPT ADUTY AGOV AILLIT ACPTAX ATEL CCORRUPT COPEN CINCOME
(d) Instruments: AGROWTH ACORRUPT ADUTY AGOV AOPEN AILLIT ACPTAX AINCOME CDUTY CGOV CCORRUPT CINCOME
(e) Instruments: AGROWTH ACORRUPT ADUTY AGOV AILLIT ACPTAX AINCOME CDUTY CGOV CCORRUPT CINCOME

Table 7: Fixed-effects 2SLS (country's share of FDI to the developing countries = dependent variable)

Independent Variables	(1)[a]	(2)[b]	(3)[c]	(4)[d]	(5)[e]
CLNFDI	-0.4410	-0.4827	-0.3873	-0.8993	-0.4970
	(2.085)**	(2.931)***	(3.036)***	(3.998)***	(2.865)***
AGROWTH	-0.2080	-0.2962	-0.2375	-0.6168	-0.2055
	(0.303)	(0.422)	(0.343)	(0.867)	(0.306)
ACORRUPT	0.4383	0.4046	0.3484	0.5963	0.4233
	(1.901)*	(1.704)*	(1.544)	(2.628)***	(2.000)**
ADUTY	1.9973	2.1665	2.1494	1.8015	2.0028
	(4.744)***	(4.698)***	(5.276)***	(4.455)***	(5.256)***
AGOV	0.1100	0.1103	0.0915	0.2988	0.1761
	(0.674)	(0.708)	(0.602)	(1.730)*	(1.090)
AWAGE	0.1256				
	(0.303)				
AOPEN	0.2812	0.0401		0.7792	
	(0.593)	(0.088)		(1.920)*	
AILLIT	-1.7902	-2.0492	-1.6252	-1.8644	-1.6477
	(2.106)**	(2.377)**	(2.176)**	(2.351)**	(2.463)**
ACPTAX	-0.4009	-0.4082	-0.4033	-0.1366	-0.3922
	(0.846)	(0.864)	(0.867)	(0.280)	(0.859)

ATEL		0.1813	0.1638		
	(0.487)	(0.591)			
AINCOME				1.3156	0.4762
	(2.813)***	(1.339)			
Constant	5.5662	7.4503	6.0018	-3.4297	3.7232
	(1.111)	(1.764)*	(1.731)*	(0.649)	(1.089)
R^2	0.0968	0.1131	0.1285	0.0491	0.0521
F-test: p-value	0.0000	0.0000	0.0000	0.0000	0.0000
Observations	130	131	131	131	131

Absolute value of t statistics in parentheses
* significant at 10%; ** significant at 5%; *** significant at 1%
(a) Instruments: AGROWTH ACORRUPT ADUTY AGOV AWAGE AOPEN AILLIT ACPTAX COPEN CINCOME
(b) Instruments: AGROWTH ACORRUPT ADUTY AGOV AOPEN AILLIT ACPTAX ATEL CGROWTH COPEN CTEL
(c) Instruments: AGROWTH ACORRUPT ADUTY AGOV AILLIT ACPTAX ATEL CCORRUPT COPEN CTEL
(d) Instruments: AGROWTH ACORRUPT ADUTY AGOV AOPEN AILLIT ACPTAX AINCOME CGOV COPEN
(e) Instruments: AGROWTH ACORRUPT ADUTY AGOV AILLIT ACPTAX AINCOME CGROWTH CCORRUPT CTEL

Table 8: Fixed-effects 2SLS (country's share of FDI to the world = dependent variable)

Independent Variables	(1)[(a)]	(2)[(b)]	(3)[(c)]	(4)[(d)]	(5)[(e)]
CLNFDI	-0.4116	-0.4312	-0.4681	-0.4519	-0.6311
	(1.737)*	(1.856)*	(1.979)*	(2.060)**	(2.208)**
AGROWTH	-0.5277	-0.8726	-0.9035	-0.9175	-0.8014
	(0.710)	(1.124)	(1.141)	(1.307)	(1.111)
ACORRUPT	0.8567	0.6340	0.7911	0.7548	0.8588
	(3.394)***	(2.391)**	(2.896)***	(3.379)***	(3.454)***
ADUTY	1.9354	2.7503	2.4531	1.8902	2.0120
	(4.232)***	(5.302)***	(5.262)***	(4.737)***	(4.953)***
AGOV	0.2315	0.1837	0.1795	0.3076	0.3968
	(1.302)	(1.056)	(1.018)	(1.808)*	(2.087)**
AWAGE	0.7996				
	(1.751)*				
AOPEN	0.4600	-0.7722		0.6617	
	(0.889)	(1.470)		(1.654)	
AILLIT	-1.0214	-1.8422	-2.1064	0.1826	-0.9901
	(1.094)	(1.629)	(1.786)*	(0.234)	(1.087)
ACPTAX	-0.2389	-0.2953	-0.2380	0.0729	-0.1120
	(0.465)	(0.568)	(0.451)	(0.151)	(0.230)
ATEL		0.7538	0.3981		
	(1.759)*	(1.236)			
AINCOME				1.5186	1.5717
	(3.314)***	(3.167)***			
Constant	-3.6667	5.1261	4.0904	-15.3017	-8.4552
	(0.674)	(0.958)	(0.827)	(2.934)***	(2.314)**
R^2	0.0017	0.1024	0.0809	0.1790	0.0372
F-test: p-value	0.0000	0.0000	0.0000	0.0000	0.0000
Observations	130	131	131	131	131

Absolute value of t statistics in parentheses
* significant at 10%; ** significant at 5%; *** significant at 1%

(a) Instruments: AGROWTH ACORRUPT ADUTY AGOV AWAGE AOPEN AILLIT ACPTAX CGROWTH CGOV CTEL
(b) Instruments: AGROWTH ACORRUPT ADUTY AGOV AOPEN AILLIT ACPTAX ATEL CTEL
(c) Instruments: AGROWTH ACORRUPT ADUTY AGOV AILLIT ACPTAX ATEL CGOV CILLIT
(d) Instruments: AGROWTH ACORRUPT ADUTY AGOV AOPEN AILLIT ACPTAX AINCOME CGOV COPEN CWAGE
(e) Instruments: AGROWTH ACORRUPT ADUTY AGOV AILLIT ACPTAX AINCOME CGOV CWAGE

2SLS Framework

Table 9: 2SLS (Level of FDI = dependent variable)

Independent Variables	(1)[(a)]	(2)[(b)]	(3)[(c)]	(4)[(d)]	(5)[(e)]
CLNFDI	0.4705	0.4652	0.5249	0.4900	0.4914
	(2.316)**	(7.106)***	(1.986)**	(7.603)***	(1.978)*
AGROWTH	0.4482	0.5555	0.2505	0.5439	0.1802
	(0.454)	(0.713)	(0.213)	(0.690)	(0.159)
ACORRUPT	0.1425	0.2097	0.5116	0.0662	0.4260
	(0.574)	(0.866)	(1.538)	(0.274)	(1.529)
ADUTY	0.0964	0.1291	-0.4156	0.1139	-0.2246
	(0.444)	(0.628)	(1.671)*	(0.529)	(0.889)
AGOV	0.1052	0.1502	0.0486	0.0639	0.0792
	(0.421)	(0.871)	(0.145)	(0.380)	(0.264)
AWAGE	-0.1638				
	(1.361)				
AOPEN	0.9970	1.0633		0.8719	
	(5.579)***	(5.453)***		(4.706)***	
AILLIT	0.0490	0.0451	0.4417	0.2151	0.4813
	(0.191)	(0.256)	(1.398)	(1.256)	(1.737)*
ACPTAX	-1.2870	-1.4080	-0.4351	-1.1890	-0.4572
	(3.421)***	(3.595)***	(1.118)	(3.098)***	(1.195)
ATEL		-0.1480	0.1724		
	(1.573)	(1.801)*			
AINCOME				-0.0010	0.3073
	(0.009)	(2.835)***			
Constant	2.9017	2.4845	1.7391	1.7522	0.2278
	(1.067)	(1.679)*	(0.518)	(1.019)	(0.070)
R^2	0.6919	0.6927	0.6151	0.6856	0.6276
F-test: p-value	0.0000	0.0000	0.0000	0.0000	0.0000
Observations	130	131	131	131	131

Absolute value of t statistics in parentheses
* significant at 10%; ** significant at 5%; *** significant at 1%
(a) Instruments: AGROWTH ACORRUPT ADUTY AGOV AWAGE AOPEN AILLIT ACPTAX CCORRUPT
(b) Instruments: AGROWTH ACORRUPT ADUTY AGOV AOPEN AILLIT ACPTAX ATEL CCORRUPT COPEN CTEL
(c) Instruments: AGROWTH ACORRUPT ADUTY AGOV AILLIT ACPTAX ATEL CGROWTH
(d) Instruments: AGROWTH ACORRUPT ADUTY AGOV AOPEN AILLIT ACPTAX AINCOME CCORRUPT COPEN CTEL
(e) Instruments: AGROWTH ACORRUPT ADUTY AGOV AILLIT ACPTAX AINCOME CGROWTH

Table 10: 2SLS (country's share of FDI to Asia = dependent variable)

Independent Variables	(1)[a]	(2)[b]	(3)[c]	(4)[d]	(5)[e]
CLNFDI	-0.2945	-0.2746	-0.2192	-0.2500	-0.2265
	(2.223)**	(4.712)***	(3.472)***	(4.340)***	(3.706)***
AGROWTH	0.3003	0.4820	0.2317	0.4684	0.2378
	(0.374)	(0.685)	(0.300)	(0.657)	(0.313)
ACORRUPT	0.3403	0.4015	0.6585	0.2550	0.5408
	(1.550)	(1.836)*	(2.805)***	(1.167)	(2.430)**
ADUTY	-0.0046	0.0364	-0.4307	0.0225	-0.2460
	(0.024)	(0.196)	(2.403)**	(0.116)	(1.248)
AGOV	0.2492	0.2728	0.1809	0.1855	0.1759
	(1.316)	(1.757)*	(1.064)	(1.222)	(1.084)
AWAGE	-0.1517				
	(1.417)				
AOPEN	0.8399	0.9164		0.7210	
	(5.248)***	(5.204)***		(4.303)***	
AILLIT	0.0926	0.0953	0.4412	0.2687	0.5091
	(0.471)	(0.602)	(2.785)***	(1.738)*	(3.301)***
ACPTAX	-1.1323	-1.2620	-0.4238	-1.0387	-0.4371
	(3.316)***	(3.567)***	(1.221)	(2.992)***	(1.286)
ATEL		-0.1490	0.1279		
	(1.754)*	(1.754)*			
AINCOME				0.0022	0.2592
	(0.021)	(2.736)***			
Constant	3.7825	3.1704	2.4818	2.4118	0.8983
	(1.902)*	(2.380)**	(1.699)*	(1.554)	(0.556)
R-squared	0.5671	0.5761	0.4811	0.5653	0.4987
F-test: p-value					
Observations	130	131	131	131	131

Absolute value of t statistics in parentheses
* significant at 10%; ** significant at 5%; *** significant at 1%
(a) Instruments: AGROWTH ACORRUPT ADUTY AGOV AWAGE AOPEN AILLIT ACPTAX CGROWTH CCORRUPT
(b) Instruments: AGROWTH ACORRUPT ADUTY AGOV AOPEN AILLIT ACPTAX ATEL CDUTY CGOV CCORRUPT CTEL
(c) Instruments: AGROWTH ACORRUPT ADUTY AGOV AILLIT ACPTAX ATEL CDUTY CGOV CCORRUPT COPEN CILLIT
(d) Instruments: AGROWTH ACORRUPT ADUTY AGOV AOPEN AILLIT ACPTAX AINCOME CGROWTH CDUTY CGOV CCORRUPT CILLIT
(e) Instruments: AGROWTH ACORRUPT ADUTY AGOV AILLIT ACPTAX AINCOME CDUTY CGOV CCORRUPT COPEN CTEL

Table 11: 2SLS (country's share of FDI to the developing countries = dependent variable)

Independent Variables	(1)[a]	(2)[b]	(3)[c]	(4)[d]	(5)[e]
CLNFDI	-0.1987	-0.2172	-0.1638	-0.1919	-0.1626
	(3.149)***	(3.503)***	(2.324)**	(2.641)***	(2.381)**
AGROWTH	0.5640	0.6161	0.3749	0.5964	0.4106
	(0.753)	(0.832)	(0.465)	(0.788)	(0.521)
ACORRUPT	0.3865	0.4724	0.7199	0.3013	0.5580
	(1.719)*	(2.055)**	(2.951)***	(1.313)	(2.429)**
ADUTY	0.0455	0.0686	-0.3812	0.0788	-0.1620

	(0.231)	(0.352)	(2.047)**	(0.385)	(0.796)
AGOV	0.0765	0.1363	0.0479	0.0419	0.0253
	(0.484)	(0.833)	(0.269)	(0.255)	(0.149)
AWAGE	-0.1179				
	(1.067)				
AOPEN	0.7936	0.8825		0.6577	
	(4.783)***	(4.767)***		(3.741)***	
AILLIT	0.2075	0.1614	0.4945	0.3637	0.5900
	(1.242)	(0.967)	(2.974)***	(2.181)**	(3.672)***
ACPTAX	-1.1884	-1.3244	-0.5173	-1.0743	-0.5267
	(3.319)***	(3.562)***	(1.439)	(2.955)***	(1.504)
ATEL		-0.1388	0.1279		
	(1.554)	(1.689)*			
AINCOME				0.0509	0.2860
	(0.454)	(2.929)***			
Constant	2.3160	2.2788	1.6163	1.1727	-0.2966
	(1.509)	(1.623)	(1.048)	(0.692)	(0.175)
R-squared	0.5399	0.5486	0.4635	0.5403	0.4867
F-test: p-value	0.0000	0.0000	0.0000	0.0000	0.0000
Observations	130	131	131	131	131

Absolute value of t statistics in parentheses
* significant at 10%; ** significant at 5%; *** significant at 1%
(a) Instruments: AGROWTH ACORRUPT ADUTY AGOV AWAGE AOPEN AILLIT ACPTAX CGROWTH COPEN CINCOME
(b) Instruments: AGROWTH ACORRUPT ADUTY AGOV AOPEN AILLIT ACPTAX ATEL CGROWTH CCORRUPT CTEL
(c) Instruments: AGROWTH ACORRUPT ADUTY AGOV AILLIT ACPTAX ATEL CTEL
(d) Instruments: AGROWTH ACORRUPT ADUTY AGOV AOPEN AILLIT ACPTAX AINCOME CCORRUPT COPEN
(e) Instruments: AGROWTH ACORRUPT ADUTY AGOV AILLIT ACPTAX AINCOME CTEL

Table 12: 2SLS (country's share of FDI to the world = dependent variable)

Independent Variables	(1)[(a)]	(2)[(b)]	(3)[(c)]	(4)[(d)]	(5)[(e)]
CLNFDI	0.1333	-0.1208	0.1457	0.1340	-0.2560
	(1.661)*	(1.745)*	(1.727)*	(1.691)*	(2.080)**
AGROWTH	0.9525	0.2754	0.7882	0.9168	-0.4421
	(1.165)	(0.349)	(0.942)	(1.136)	(0.490)
ACORRUPT	0.6731	0.8973	0.9121	0.5616	0.8959
	(2.773)***	(3.671)***	(3.610)***	(2.297)**	(3.545)***
ADUTY	0.0493	-0.0092	-0.2331	0.1237	-0.2004
	(0.232)	(0.044)	(1.210)	(0.568)	(0.891)
AGOV	-0.0894	0.2163	-0.0969	-0.1316	0.2638
	(0.510)	(1.234)	(0.513)	(0.750)	(1.273)
AWAGE	-0.0282				
	(0.237)				
AOPEN	0.4879	0.6938		0.3186	
	(2.728)***	(3.523)***		(1.701)*	
AILLIT	0.5629	0.2174	0.7099	0.7250	0.4680
	(3.047)***	(1.214)	(4.028)***	(4.064)***	(2.402)**
ACPTAX	-1.1054	-1.3144	-0.6967	-0.9546	-0.6257
	(2.867)***	(3.328)***	(1.890)*	(2.465)**	(1.657)
ATEL		-0.1624	0.0912		
	(1.707)*	(1.168)			

AINCOME				0.1623	0.2392
	(1.359)	(2.266)**			
Constant	-2.6511	0.3691	-2.7351	-4.0491	-0.1839
	(1.539)	(0.244)	(1.648)	(2.231)**	(0.086)
R-squared	0.4789	0.5020	0.4478	0.4899	0.4175
F-test: p-value	0.0000	0.0000	0.0000	0.0000	0.0000
Observations	130	131	131	131	131

Absolute value of t statistics in parentheses

* significant at 10%; ** significant at 5%; *** significant at 1%

(a) Instruments: AGROWTH ACORRUPT ADUTY AGOV AWAGE AOPEN AILLIT ACPTAX CGROWTH CDUTY

(b) Instruments: AGROWTH ACORRUPT ADUTY AGOV AOPEN AILLIT ACPTAX ATEL CGROWTH CTEL

(c) Instruments: ACORRUPT ADUTY AGOV AILLIT ACPTAX ATEL CDUTY

(d) Instruments: AGROWTH ACORRUPT ADUTY AGOV AOPEN AILLIT ACPTAX AINCOME CGROWTH CDUTY

(e) Instruments: AGROWTH ACORRUPT ADUTY AGOV AILLIT ACPTAX AINCOME CGROWTH CGOV CCORRUPT