



**HAL**  
open science

# The Effect of Corruption on Foreign Direct Investment at the Regional Level: A Positive or Negative Relationship?

Bruno Jetin, Jamel Saadaoui, Haingo Ratiarison

► **To cite this version:**

Bruno Jetin, Jamel Saadaoui, Haingo Ratiarison. The Effect of Corruption on Foreign Direct Investment at the Regional Level: A Positive or Negative Relationship?. *Corruption and Illegality in Asian Investment Arbitration*, 22, Springer, pp.69-86, 2024, *Asia in Transition*, 978-981-99-9302-4. 10.1007/978-981-99-9303-1\_3 . halshs-04553636

**HAL Id: halshs-04553636**

**<https://shs.hal.science/halshs-04553636v1>**

Submitted on 21 Apr 2024

**HAL** is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.



Distributed under a Creative Commons Attribution 4.0 International License

# Chapter 3

## The Effect of Corruption on Foreign Direct Investment at the Regional Level: A Positive or Negative Relationship?



Bruno Jetin, Jamel Saadaoui, and Haingo Ratiarison

**Abstract** This chapter looks at the effect of corruption on foreign direct investment (FDI) at the world and regional levels, with a focus on East, South and Southeast Asia. The academic literature is inconclusive because the nature of corruption can be different from one country to another and because various other factors can decide whether a foreign company will invest in a country or region despite a relatively high level of corruption. To shed light on the effect of corruption, the authors proceed to a panel econometrics investigation that assesses the relationship between the stock of FDI and the ‘control of corruption’, published by the World Bank, for a sample of 180 countries over the period 2002–2019. The ‘control of corruption’ index combines 23 different assessments and surveys capturing perceptions of the extent to which public power is exercised for private gains. A low score means that the authorities do not fight corruption or are not effective in fighting it, and therefore corruption is high; and vice versa. The authors include two control variables (real GDP and secondary school enrolment) to better estimate the specific role of corruption. Their results show that at the world level, the control of corruption is low and has a positive effect on FDI, which means that corruption is a stimulus to FDI, in line with Egger and Winner’s findings. However, in East Asia, Southeast Asia, Australia and New Zealand, corruption has a ‘grabbing hand’ effect. In the European Union, corruption is a helping hand. The authors’ results confirm the importance of a regional approach to the analysis of the effect of corruption on FDI.

---

B. Jetin (✉)

Institute of Asian Studies, Universiti Brunei Darusslam, Bandar Seri Begawan, Brunei

e-mail: [bruno.jetin@ubd.edu.bn](mailto:bruno.jetin@ubd.edu.bn)

URL: <https://ias.ubd.edu.bn/bruno-jetin/>

J. Saadaoui

Faculty of Economics and Management, University of Strasbourg, Strasbourg, France

e-mail: [saadaoui@unistra.fr](mailto:saadaoui@unistra.fr)

URL: <https://www.jamelsaadaoui.com/>

H. Ratiarison

University of Strasbourg, Strasbourg, France

URL: <https://www.linkedin.com/in/haingo-ratiarison-20a2b21bb/?originalSubdomain=fr>

© The Author(s) 2024

N. Teramura et al. (eds.), *Corruption and Illegality in Asian Investment Arbitration*, Asia in Transition 22, [https://doi.org/10.1007/978-981-99-9303-1\\_3](https://doi.org/10.1007/978-981-99-9303-1_3)

### 3.1 Introduction

Corruption has been long considered one of the greatest obstacles to economic and social development. Already in 1998, a survey of more than 150 high-ranking public officials and key members of civil society from more than 60 developing countries ranked ‘public sector corruption as the most severe impediment to development and growth in their countries’.<sup>1</sup> The United Nations Secretary General António Guterres, citing estimates by the World Economic Forum, declared that ‘the global cost of corruption is at least \$2.6 trillion, or 5 per cent of the global gross domestic product (GDP), adding that, according to the World Bank, businesses and individuals pay more than \$1 trillion in bribes every year’.<sup>2</sup> Sustainable Development Goal 16 aims to ‘substantially reduce corruption and bribery in all their forms’.<sup>3</sup>

The World Bank defines corruption simply as the ‘use of public office for private gain’,<sup>4</sup> a definition shared by Vito Tanzi from the International Monetary Fund.<sup>5</sup> It includes bribery and extortion, fraud and embezzlement. Although the World Bank does not acknowledge it, this narrow definition tends in practice to limit the causes of corruption to high-ranked public officers and to excesses of regulation, and generally leads to advocating the reduction of state intervention as the principal remedy to corruption. However, corruption goes beyond the misconduct of individual public officials. It involves a ‘network of politicians, organisations, private companies, and private individuals colluding to benefit from access to power, public resources, and policy-making at the expense of the public good’.<sup>6</sup> This implies that the supply side of corruption counts as much as the demand side.<sup>7</sup> Moreover, the corruption of public authorities casts suspicion on big private corporations, small businesses and local traders.<sup>8</sup> The impact of public authorities’ corruption on private companies is differentiated because there are ‘strategic activities conducted by firms in response to corruption’.<sup>9</sup> Accordingly, the definition of corruption needs to be inclusive and encompass all possible forms.<sup>10</sup> Synthesizing the literature, Bahoo et al. (2020) define corruption as ‘an illegal activity (bribery, fraud, financial crime, abuse, falsification, favouritism, nepotism, manipulation, etc.) conducted through misuse of authority or power by public (government) or private (firms) officeholders for private gain and benefit, financial or otherwise’. This is this definition that we use in this chapter.

There are multiple causes of corruption and have been the subject of many investigations summarised in several surveys of the literature.<sup>11</sup> For instance, Dimant and Tosato<sup>12</sup> list: bureaucracy and inefficient administrative and political structure; civil participation/press freedom; economic freedom; economic growth; ethnic diversity; gender; globalisation; government size; government structure; government system; historical drivers; contagious effects; economic prosperity; and education as the most important causes of corruption—the last three being considered new in the literature. Bahoo et al. (2020) perform an exhaustive bibliometric and content analysis of the business academic literature (137 articles over 17 years) and conclude that common situations, characteristics of the firm, and economic and cultural factors are the main determinants of corruption. However, analysing a comprehensive list of 36 potential corruption determinants across 123 countries (covering 87 percent of the world

population), Jetter and Parmeter (2018) find that economic and institutional factors play the dominant role, not culture.

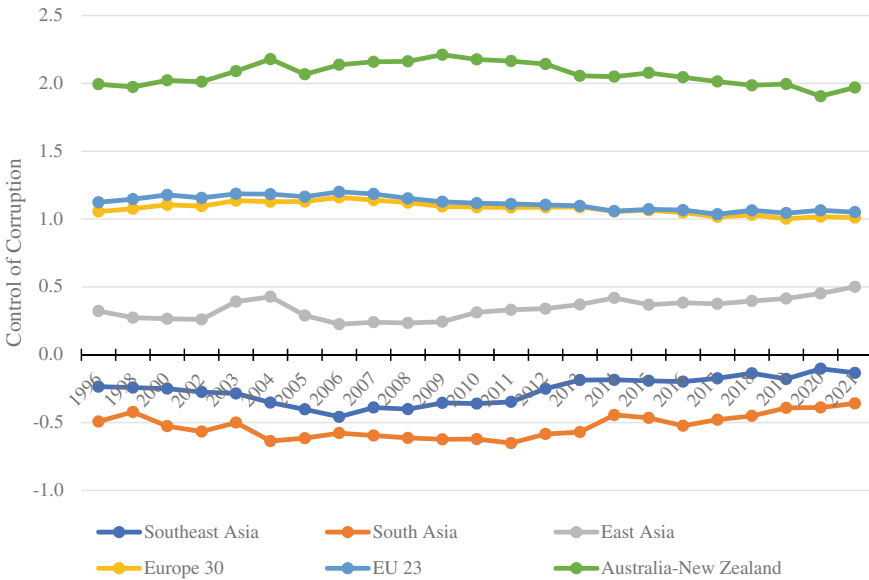
The effects of corruption on the economy encompass many issues including growth, domestic and foreign direct investment (FDI), international trade, bureaucratic inefficiency, the shadow economy, poverty and social inequalities, civil and political rights, human development, the state's legitimacy, trust in institutions, brain drain, fiscal deficit, human capital, the environment, natural resources and climate change.<sup>13</sup> The impact on the environment is a growing issue.<sup>14</sup>

For all these effects of corruption, the economic literature tries to assess whether the relationship is positive or negative. As is often the case in applied economics, there is no convergence towards a positive or a negative relation for each effect. The sample of countries and the time periods are not the same: the tested equations, the source of variables and the econometric investigations differ. Teixeira and Guimarães (2015, p. 175) have shown convincingly that 'using distinct proxies for corruption variables, as well as controlling for other types of the countries' institutional quality, generate distinct outcomes'.

It is beyond the scope of our chapter to address all the effects of corruption on these economic and social dimensions. We restrict our investigation to the relationship between corruption and FDI. This choice is motivated by the fact that FDI plays a key role in the economic development of the host countries, in particular in developing countries.<sup>15</sup> More precisely, we investigate the nature of the relationship between the control of corruption and the inward stock of FDI. The relation is positive when countries which are controlling corruption successfully attract more FDI. It is negative when controlling corruption reduces FDI.

Our contribution to the literature is to look at this relation on a geographical basis. This geographical approach is based on a recent result from the literature. Corruption has a significant regional dimension.<sup>16</sup> According to Gründler and Potrafke (2019, p. 2), 'empirical evidence shows that corruption in an individual country or region is positively correlated with corruption in neighbouring countries or regions'. This is consistent with the above definition that corruption operates within networks, and the fact that regions like Europe or Asia have intense trade and investment internal relations prompted by well-established regional value chains.<sup>17</sup> This geographical approach is of great interest in some regions like East Asia or Southeast Asia that have received in the recent past a large share of FDI, although they have performed poorly in terms of corruption—a phenomenon that Wedeman (2003) called two decades ago 'the East Asian paradox'.

This paradox is illustrated by Figs. 3.1, 3.2 and 3.3. Figure 3.1 shows the evolution of the control of the corruption<sup>18</sup> of: East, Southeast and South Asia; Australia; New Zealand; plus Europe and the EU.<sup>19</sup> One can see that Australia and New Zealand enjoy a high level of control of corruption (+2), two times higher than Europe and the EU average (+1), which have a positive but declining score. East Asia, which regroups the most developed countries in Asia, has a low but positive score. China is among them and has gradually improved its control of corruption.<sup>20</sup> Southeast and South Asia have negative scores, which means that the perceived corruption



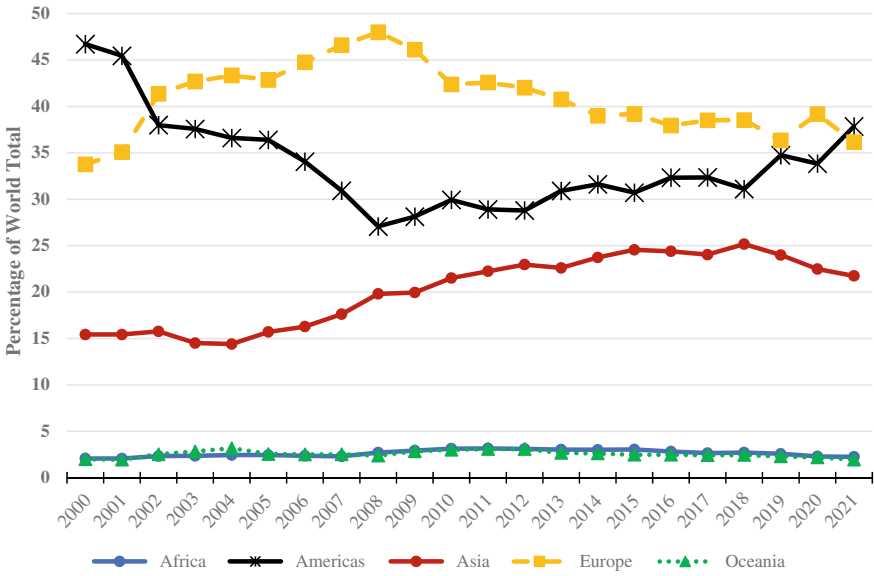
**Fig. 3.1** Control of corruption in Asia–Pacific and Europe (1996–2021). *Source* Authors’ estimation using World Governance Indicators, the World Bank

in these sub-regions is still currently high and significant, although there has been improvement since 2006 for Southeast Asia and since 2011 for South Asia.

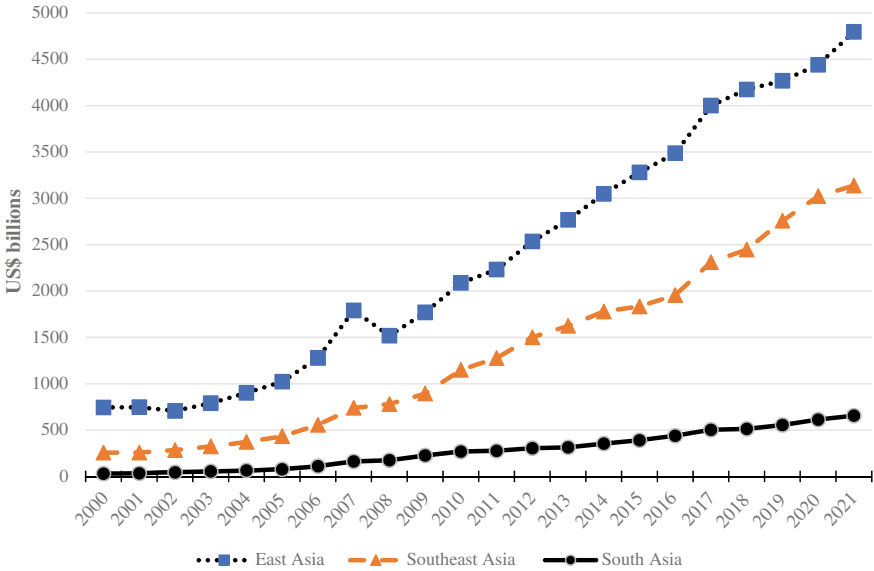
In terms of stocks of FDI, although Europe and the Americas still dominate by far, Asia has increased its global share significantly since 2000, mostly at the expense of the Americas (see Fig. 3.2). A focus on East, Southeast and South Asia shows that the stocks of FDI have dramatically increased, leading to an acceleration of growth and a catch-up with Western countries (see Fig. 3.3). The progress has been much more limited for South Asia.

Looking at the effect of the control of corruption on the FDI in 43 European countries and 39 Asian countries<sup>21</sup> for the period 1996–2013, Abotsi (2018) finds that the relationship is negative for both Europe and Asia, although both regions were large recipients of FDI over the period. This confirms the existence of a paradox for both regions at the time. However, the recent evolution of the control of corruption and FDI in Asia leads one to wonder if the ‘East Asian paradox’ still exists.

To answer this question, we establish robust regional effects between corruption and FDI. Our contribution to the literature is threefold. First, we explore a large macroeconomic panel of 163 countries to provide a more reliable inference on the relationship. Second, we use a country-fixed-effects model to consider cross-sectional differences between countries in an era of financial integration, the 2002–2019 period. Third, we focus on the regional and sub-regional difference in the relation thanks to interaction terms with regional dummies.



**Fig. 3.2** Breakdown of global inward stock of FDI (2000–2021). *Source* UNCTAD STATS, accessed 7 June 2023



**Fig. 3.3** Stock of inward FDI in Asia (2000–2021). *Source* UNCTAD STATS, accessed 7 June 2023

The rest of this chapter is organised as follows. Section 3.2 reviews the literature dedicated to the effect of corruption on FDI. Section 3.3 presents our model and estimations of the relationship between corruption and FDI at world and regional levels. Section 3.4 discusses the results and concludes.

## 3.2 Corruption and FDI: A Controversial Relationship

The relationship between corruption and FDI has been extensively examined by a large number of economists with the objective of determining if corruption has a negative effect on—or at least a correlation with—FDI or not (see also Chap. 2 in this volume for an extensive review). The substantive arguments used by most economists regarding corruption are not based on ethics or moral criteria but rather on efficiency. Does corruption help the market economy to work better, or does it create inefficiencies? This narrow view explains why in the 1960s some writers<sup>22</sup> defended the argument that corruption can help promote development by getting around inefficiencies in bureaucracy. The importance given to bureaucracy is justified not only by those who think that the state is always the source of the problem but also because the early studies on corruption focused on developing countries, where it was believed that the state was more inefficient and more prone to corruption or cronyism. Despite the central role given to bureaucracy, not all economic studies on corruption actually check whether it is really the main cause of corruption, with a few exceptions. For instance, Mungiu-Pippidi and Fazekas (2020) find a negative effect of the administrative burden on corruption. The empirical studies on the relationship between FDI and corruption have latterly embraced a growing number of variables, taking into account various macro-economic and socio-institutional variables such as those we have listed above.

It appears that empirically, at the macro-level, the majority of studies find evidence that corruption does have an adverse effect on growth and development, and this effect is larger among lower-income countries.<sup>23</sup> Very few have found a positive effect of corruption on FDI.<sup>24</sup> This growing literature on the adverse effect of corruption explains why many international organisations decided to promote new international agreements to better coordinate the fight against corruption, such as the United Nations Convention Against Corruption (open for signature in 2003, and very widely ratified) and the 1997 OECD Convention on Combating Bribery of Foreign Officials in International Business Transaction (see Chap. 1 as well as Chaps. 4 and 5 in this volume). However, looking back, these broad treaties have been found not to have been very effective, as measured for example by survey and case study evidence. One of the reasons may be that corruption operates also at a regional level, so a regional coordination of the fight against corruption may be more effective. This is an additional reason for investigating the relation between corruption and FDI at the regional level.

### 3.3 Empirical Model and Estimations

Our objective is to obtain robust estimates of the relationship between corruption and FDI. To that end, we adopt the approach of Egger and Winner (2005) but for a much larger sample. Whereas Egger and Winner used a sample of 73 developed and less developed countries and the period 1995–1999, our sample includes 163 countries over the period 2002–2019 and 2752 observations. Our specification is the following:

$$F_{it} = \beta_0 + \beta_1 G_{i(t-1)} + \beta_2 S_{i(t-1)} + \beta_3 G_{i(t-1)} \cdot S_{i(t-1)} + \beta_5 C_{it} + \eta_i + u_{it}$$

$F_{it}$  denotes country  $i$ 's FDI inward stock in year  $t$  as a percentage of GDP (source: UNCTAD database).

$G_{i(t-1)}$  is the real GDP in constant 2015 USD (source: World Development Indicators, WDI, from the World Bank). It is a proxy for foreign market size. We expect the positive impact of an increase in market size on inward FDI.

$S_{i(t-1)}$  is the secondary school gross enrolment share (source: WDI) and is a proxy for the high-skilled to low-skilled labour ratio. A low ratio reflects an abundance of low-skilled labour that attracts vertical FDI, and a high ratio of skilled labour attracts more horizontal FDI.<sup>25</sup> We expect a negative sign in the case of vertical FDI and a positive sign when horizontal FDI predominates.<sup>26</sup>

$G_{i(t-1)} \cdot S_{i(t-1)}$  is an interaction variable between the size of the market and the secondary school gross enrolment share. It is an additional variable that also captures the importance of vertical FDI. It is a proxy for absolute differences of the skilled ratio in different countries.<sup>27</sup> Typically, a large developing country with an abundance of low-skilled workers will attract vertical FDI. A negative sign is expected when vertical FDI dominates.

$C_{it}$  = Control of Corruption CC, one of the six World Governance Indicators of the World Bank.<sup>28</sup> Contrary to Egger and Winner, we use the CC of the World Bank instead of the Corruption Perceptions Index (CPI) published by Transparency International, for two reasons. Firstly, the CC fits better with our definition of corruption as it includes corruption of both public and private agents, whereas the CPI estimates the corruption of public officials only. Secondly, there is a data break in the CPI series between the years 1996–2011 and 2012 onwards. Due to a change in methodology, the two periods cannot be merged.<sup>29</sup> The CC does not have this problem over the period 2002–2019.

$\eta_i$  = country fixed effect. This absorbs all time-invariant unobserved factors affecting  $F_{it}$ .

For instance, the distance from the source to the host country increases the transaction costs and therefore impacts FDI negatively.

$u_{it}$  is an idiosyncratic error, specific to country and time period.

We do not include the variable Legal Quality  $L$ , of the Economic Freedom Network, which is in Egger and Winner's original specification, because it is not available for all the selected countries over the whole period.



We take the log of all the variables, and lagged values are used to avoid a potential problem of endogeneity.

We estimate this equation using fixed country effects. We are interested in estimating the effect of a change in the control of corruption through time. Thus, we use a fixed model in order to control for time-invariant country-specific factors. The Hausman tests indicate that the fixed effect model has to be selected. Besides, one can argue that the CC variable exhibits a limited time variation. In this case, the fixed effect model will be adapted to capture the effects of the control of corruption, which are time-invariant. The main results are presented in Table 3.1.

Columns 3 to 7 show that the size of the market (real GDP) is significant, and has a positive expected sign. This implies that the stock of FDI increases with the size of the host country's market. The secondary school enrolment and the interaction term are significant, and have respectively a positive and negative sign. This means that multinational firms combine horizontal and vertical FDI at the world and regional levels. Our results differ from Egger and Winner's findings (2005), which could not identify a significant interaction term and therefore any significant evidence of the dominance of vertical FDI. This can be explained by the emergence of several developing countries in the more recent period that have now shifted to higher income levels, and which have now their own multinational firms investing abroad. Multinational firms from Malaysia, Indonesia, Thailand and the Philippines are now investing in Southeast Asia and beyond.<sup>30</sup> Chinese multinational enterprises are doing the same.<sup>31</sup>

The control of corruption 'cc' is negative for all specifications. This means that at the world level, an increase in the control of corruption decreases the stock of FDI. In other words, an increase in corruption increases the stock of FDI in line with the 'helping hand' argument.<sup>32</sup> We therefore have confirmed the results obtained by Egger and Winner,<sup>33</sup> but for a larger sample and a longer and more recent period. This implies that, at the world level, multinational firms accept paying bribes to bypass excessive bureaucracy, obtain access to the host country's market and resources or publicly funded projects, and circumvent laws and regulations. This means that despite the cost that corruption adds to their investment projects, they are still considered profitable. It also shows that despite the fact that 189 countries have signed the UNCAC since 2003 (see Chap. 1), paying bribes to invest in a host country is still pervasive at the world level.

However, results for the different regions can be seen in columns 5 to 7, which include dummy variables for each region. Column 5 includes a dummy variable for Europe and South Asia, which turns out to be non-significant. When we substitute Europe with the largest European Union economies (EU 15) in column 7, we can see that the dummy variables for East Asia, Southeast Asia, the EU 15, and the Pacific Island countries of Australia and New Zealand are significant. It is positive for all regions except for the EU 15, where it is negative.

Using column 7, we estimate the final effect by the addition of the estimate of cc and each regional dummy variable. The results are presented in Table 3.2. We can see that in East Asia and Southeast Asia, the control of corruption has a positive relationship with the inward stock of FDI. In other words, corruption has a negative

Table 3.1 Results

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)
FE_full		FE_fullprime	FE_fulla	FE_fullb	FE_fullc	FE_fulld	FE_fulle
lfdistocks		lfdistocks	lfdistocks	lfdistocks	lfdistocks	lfdistocks	lfdistocks
L.lrealgdp	0.6858*** (0.1141)	0.6751*** (0.1157)	1.3953*** (0.2324)	1.4184*** (0.2068)	1.4033*** (0.2335)	1.4344*** (0.2078)	1.4508*** (0.2080)
L.lschoolgross			3.2330*** (1.1217)	3.4912*** (0.9880)	3.2213*** (1.1240)	3.5067*** (0.9870)	3.5946*** (0.9872)
cL.lrealgdp#cL.lschoolgross			-0.1211*** (0.0464)	-0.1330*** (0.0411)	-0.1206*** (0.0464)	-0.1337*** (0.0411)	-0.1377*** (0.0411)
Control of Corruption, cc	-0.1969** (0.0774)	-0.2292** (0.0900)	-0.2114*** (0.0765)	-0.1788*** (0.0674)	-0.1913** (0.0966)	-0.1738** (0.0815)	-0.1595** (0.0760)
1.europe#c.cc		-0.1515 (0.1611)			-0.2084 (0.1664)	-0.2276 (0.1599)	
1.southasia#c.cc		0.3100 (0.1905)			-0.2370 (0.1829)	-0.2117 (0.1762)	-0.2222 (0.1735)
1.eastasia#c.cc		0.5990** (0.2878)			0.1700 (0.2408)	1.3526*** (0.3902)	1.3361*** (0.3877)
1.southeastasia#c.cc		0.7379*** (0.1904)			0.7522*** (0.2009)	0.7990*** (0.1974)	0.7835*** (0.1951)
1.ausnz#c.cc		0.5512 (0.3474)			1.8972*** (0.4531)	1.8318*** (0.4371)	1.8171*** (0.4356)
1.europe15#c.cc							-0.4918** (0.2238)

(continued)

Table 3.1 (continued)

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)
FE_full		FE_fullprime	FE_fulla	FE_fullb	FE_fullc	FE_fulld	FE_fullf
lfdistocks		lfdistocks	lfdistocks	lfdistocks	lfdistocks	lfdistocks	lfdistocks
Constant	-13.2810*** (2.7690)	-13.0127*** (2.8158)	-32.1455*** (5.4936)	-32.2942*** (4.8515)	-32.3487*** (5.5251)	-32.6881*** (4.8769)	-33.0041*** (4.8796)
Observations	2,752	2,752	1,517	1,849	1,517	1,849	1,849
R-squared	0.6779	0.6784	0.8604	0.8783	0.8614	0.8796	0.8799
Countries	163	163	98	152	98	152	152
RMSE	0.832	0.832	0.403	0.392	0.402	0.391	0.390

\*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \* $p < 0.1$

Note Robust standard errors in parentheses

**Table 3.2** Summary of results

Region	Regional effect	Total effect	Effect of corruption
East Asia	1.34	1.18	Grabbing hand
Southeast Asia	0.78	0.62	Grabbing hand
Australia/New Zealand	1.81	1.65	Grabbing hand
EU 15	-0.49	-0.65	Helping hand

*Note* Effect of control of corruption at world level = -0.16. Example for East Asia:  $-0.16 + 1.34 = 1.18$

relationship with FDI in line with the grabbing hand representation. This surprising result is consistent with Fig. 3.3, which shows that the control of corruption is positive and improving in East Asia, and negative but improving in Southeast Asia.<sup>34</sup> It tends to decline in Europe and in the EU but remains at a high level in Australia and New Zealand. The result for Europe and notably for the EU is surprising due to the existence of the 1999 Council of Europe Criminal Law Convention and the 1999 Council of Europe Civil Law Convention on Corruption (see Chaps. 1 and 5 in this volume). For Australia and New Zealand, the positive relationship between the control of corruption and FDI is in line with their reputation as ‘clean’ countries. Additionally, Canare (2017) finds that a country which is not corrupt and has stayed that way for many years tends to receive more FDI inflows. That is exactly the case of Australia and New Zealand in our sample.

### 3.4 Discussion and Conclusions

Our discussion has focused on Asian countries. The results validate the interest in a regional approach. They also answer the question we raised in Sect. 3.1. There is no longer an ‘East Asian paradox’ because both East Asia and Southeast Asia now attract more FDI because they have increased their control of corruption. Our results are in line with Canare (2017) who also relies on the control of corruption to estimate its effect on a sample of 46 countries in Asia and the Pacific for the years 2006–2013. For the whole sample, Canare finds that both the level and the change in the control of corruption have a positive effect on FDI inflows. Countries with less corruption or that improve their control of corruption receive more FDI. However, he found no significant relationship when the analysis was limited to low- and middle-income countries. This means that other factors might play a role in determining FDI in these countries.

Looking specifically at Southeast Asian countries<sup>35</sup> for the same period as our study (2002–2019), Nguyen et al. (2021) conclude that FDI inflows are positively affected by GDP growth and trade openness. In addition, control of corruption has a positive effect on FDI inflows. Although they used a different statistical approach,<sup>36</sup>

these results confirm our own findings. In another study dedicated to that sub-region, Lustrilanang et al. (2023) reach the same conclusions.

However, our findings do not confirm those of Khalid (in Chap. 2 in this volume) who investigated a sample of 33 Asian countries for the period 1995–2022 and found evidence instead of a ‘helping hand’ effect. The difference is probably explained by the difference of sample and methodology. Khalid retains the United Nations broader definition of ‘Asia’, which includes Western and Central Asia, whereas our investigation is focused on East, Southeast and South Asia. The difference of geographical areas is significant because certain variables affect countries differently, and the interplay between macroeconomic variables and institutions is not the same in area or another.<sup>37</sup> This is all the more the case given that corruption has spillover effects in neighbouring countries in Asia.<sup>38</sup> That explains why for East and Southeast Asia, we found instead a ‘grabbing hand’ effect. The choice of different indicators for corruption and the use of regional dummies instead of sub-samples, as in Khalid’s contribution, also play a role. For these reasons we believe that there is no contradiction but rather complementarity between the two chapters.

In conclusion, we have attempted in this chapter to investigate the relationship between the control of corruption and FDI at the world and regional levels, with a focus on the regions and countries that are primarily studied in this volume. Asia was known as one of the regions that received the most FDI in the recent past, although it was also known for its cronyism and high level of corruption. This situation was known as the ‘East Asian paradox’ because the majority of studies had concluded that a high level of corruption hampers FDI. The main conclusion of our chapter is that the situation has changed, and such a paradox no longer exists.

Our results show that Asian countries which improved their control of corruption, even if they started from a low level or had initially a high level of corruption, do attract (or at least are significantly associated with) more FDI. This is an encouraging result for policymakers, the judicial system and civil society engaged in the fight against corruption. Improving the control of corruption brings additional benefits. In a study of eight Southeast country members, Lustrilanang et al. (2023) found that a higher control of corruption leads to enhancing the quality of governance in the sample countries. This is an important result because an improvement in the quality of institutions has a positive influence on FDI<sup>39</sup> and an overall beneficial effect on society at large.

## Appendix: Descriptive Statistics for Table 3.2

Variables	(1)	(2)	(3)	(4)	(5)
	N	mean	sd	min	max
cc	3,202	−0.0552	0.990	−1.849	2.459
lfdistocks	3,088	3.413	1.409	−19.18	9.092

(continued)

(continued)

Variables	(1)	(2)	(3)	(4)	(5)
	N	mean	sd	min	max
lrealgdp	3,193	24.07	2.413	17.14	30.62
lschoolgross	2,209	4.305	0.505	1.780	5.099

List of countries:

Asia: 20 countries.

East Asia (4): China, Japan, Korea, Republic of Mongolia.

Southeast Asia (9): Brunei Darussalam, Cambodia, Indonesia, Malaysia, Myanmar, Philippines, Singapore, Thailand, Vietnam.

South Asia (7): Afghanistan, Bangladesh, Bhutan, India, Nepal, Pakistan, Sri Lanka.

Europe (29): Albania, Austria, Belgium, Bulgaria, Croatia, Cyprus, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Spain, Sweden, the United Kingdom.

EU15: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain, Sweden, the United Kingdom.

## Notes

1. Gray and Kaufman 1998.
2. United Nations 2018.
3. United Nations 2015.
4. Huther and Shah 2000.
5. Tanzi 1998.
6. Kaufmann 2015.
7. ‘Those who pay bribes are sometimes depicted as innocent parties, forced by ruthless officials to provide kickbacks and do special favours in return for business. The reality is that both parties to corrupt practices conspire to defraud the public, to undermine fair trade, to waste resources, to frustrate development, and often to increase human suffering’ (Vogl 1998, p. 30).
8. Gillanders and Neselevska 2018.
9. Galang 2012.
10. Dine 2017.
11. Ades and Tella 1996; Bahoo 2020; Dimant and Tosato 2018; Jain 2001; Jetter and Parmeter 2018.
12. Dimant and Tosato 2018, pp. 344–345.
13. Dimant and Tosato 2018; Spyromitros and Panagiotidis 2022; Urbina 2020.
14. Pujjati et al. 2023; Tacconi and Williams 2020; Wang et al. 2020.
15. Almfraji and Almsafir 2014.
16. Becker et al. 2009; Borsky and Kalkschmied 2019; Goel and Saunoris 2022; Jetter and Parmeter 2018; Sanyal and Samanta 2020.
17. Jetin 2018.

18. The Control of Corruption (CC) ‘captures perceptions of the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as ‘capture’ of the state by elites and private interests’ (Kray et al. 2010, p. 4). It is one of the six Global Governance Indicators published by the World Bank, and aggregates 23 indexes. See Kaufmann 2015. Its value ranges from  $-2.5$  (very corrupted) to  $+2.5$  (not corrupted).
19. The regional average is calculated as the average of the CC index of each country in each region. The list of countries and of regions is given in the Appendix.
20. Ang 2020.
21. Unfortunately, the list of European and Asian countries is not given, but their number suggests a fairly broad definition of Europe and Asia.
22. Huntington 1968; Leff 1964; Leys 1965.
23. Aizenman and Spiegel 2003; Barassi and Zhou 2012; Cuervo-Cazurra 2008; Habib and Zurawicki 2002; Hakkala et al. 2008; Javorcik and Wei 2009; Mauro 1995; Voyer and Beamish 2004; Wei 2000.
24. Egger and Winner 2005 is one of the exceptions.
25. Markusen and Maskus 2002.
26. A ‘vertical’ FDI is realised when firms geographically separate activities by stages of production in different countries, locating low-skilled jobs in countries where low-paid work is abundant. Typically, for example, a Japanese firm invests in different Southeast Asian countries. A ‘horizontal’ FDI is made when multi-plant firms duplicate roughly the same activities in many countries, which have similar sizes and labour forces. Typically, a Japanese firm invests in the United States to produce and sell in the local market. See Markusen and Maskus 2002.
27. Egger and Winner 2005, p. 937.
28. The control of corruption is an aggregate indicator constructed by the World Bank as one of the six composite World Governance Indicators to capture corruption on a scale of  $-2.5$  to  $+2.5$ , where the higher the index, the less the corruption indicated. It captures perceptions of the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as the ‘capture’ of the state by private interests. It combines the views of a large number of enterprises, citizens and expert survey respondents (Economist Intelligence Unit, Freedom House, Transparency International Global Corruption Barometer, World Economic Forum Global Competitiveness Survey, Gallup World Poll, etc.).
29. Corruption Perceptions Index 2012: An updated methodology. Transparency International.
30. Al-Fadhat 2020, p. 182; Faisal Hastiadi 2019.
31. Kim 2016.
32. Compare also Chap. 2 in this volume.
33. Egger and Winner 2005.
34. To test the robustness of our results for Southeast Asia, we performed the test without Singapore. That country may be considered as an outlier because it combines a very high level of control of corruption and a constant high level of inward stock of FDI (see Chap. 1 in this volume). The results were almost identical, confirming that corruption is a grabbing hand in Southeast Asia. Removing Indonesia, the largest economy of Southeast Asia does not change the results either.
35. Six Southeast Asian economies are considered: Indonesia, Malaysia, the Philippines, Singapore, Thailand and Vietnam.
36. The generalised method of moments.
37. Canare 2017.
38. Khodapanah et al. 2022.
39. Sabir et al. 2019.

## References

- Abotsi, A.K. (2018) ‘Tolerable Level of Corruption for Foreign Direct Investment in Europe and Asia’. *Contemporary Economics* 12 (3): 269–283

- Ades, A. and R.D. Tella (1996) The Causes and Consequences of Corruption: A Review of Recent Empirical Contributions. *IDS Bulletin* 27 (2): 6–11. <https://doi.org/10.1111/j.1759-5436.1996.mp27002002.x>
- Aizenman, J. and M. Spiege (2003) *Institutional Efficiency, Monitoring Costs and the Investment Share of FDI*. Federal Reserve Bank of San Francisco
- Al-Fadhat, F. (2020) ‘The Internationalisation of Capital and the Transformation of Statehood in Southeast Asia’. In: T. Carroll et al. (eds) *The Political Economy of Southeast Asia: Politics and Uneven Development under Hyperglobalisation*. Palgrave Macmillan, London, pp 177–198
- Almfraji, M.A. and M.K. Almsafir (2014) Foreign Direct Investment and Economic Growth Literature Review from 1994 to 2012. *Procedia-Social and Behavioral Sciences* 129: 206–213
- Ang, Y.Y. (2020) *China’s Gilded Age: The Paradox of Economic Boom and Vast Corruption*. Cambridge University Press, Cambridge
- Bahoo, S. et al. (2020) Corruption in International Business: A Review and Research Agenda. *International Business Review* 29 (4): 101660. <https://doi.org/10.1016/j.ibusrev.2019.101660>
- Barassi, M.R. and Y. Zhou (2012) The Effect of Corruption on FDI: A Parametric and Non-parametric Analysis. *European Journal of Political Economy* 28 (3): 302–312
- Becker, S.O. et al. (2009) Common Political Culture: Evidence on Regional Corruption Contagion. *European Journal of Political Economy* 25 (3): 300–310
- Borsky, S. and K. Kalkschmied (2019) Corruption in Space: A Closer Look at the World’s Subnations. *European Journal of Political Economy* 59: 400–422. <https://doi.org/10.1016/j.ejpoleco.2019.05.004>
- Canare, T. (2017) The Effect of Corruption on Foreign Direct Investment Inflows: Evidence from a Panel of Asia-Pacific Countries. In: C. Rowley and M. Rama (eds) *The Changing Face of Corruption in the Asia Pacific*. Elsevier, Amsterdam, pp 35–55
- Cuervo-Cazurra, A. (2008) Better the Devil You Don’t Know: Types of Corruption and FDI in Transition Economies. *Journal of International Management* 14 (1): 12–27
- Dimant, E. and G. Tosato (2018) Causes and Effects of Corruption: What Has Past Decade’s Empirical Research Taught Us? A Survey. *Journal of Economic Surveys* 32 (2): 335–356. <https://doi.org/10.1111/joes.12198>
- Dine, J. (2017) It Takes Two People to Tango (or More!): The Corrupt and DEBASED Culture of Neoliberalism. In: C. Rowley and M. Rama (eds) *The Changing Face of Corruption in the Asia Pacific*. Elsevier, Amsterdam, pp 81–92
- Egger, P. and H. Winner (2005) Evidence on Corruption as an Incentive for Foreign Direct Investment. *European Journal of Political Economy* 21 (4): 932–952
- Faisal, H.F. (eds) (2019) *Globalization, Productivity and Production Networks in ASEAN Enhancing Regional Trade and Investment*. Palgrave Macmillan, London
- Galang, R.M.N. (2012) Victim or Victimizer: Firm Responses to Government Corruption. *Journal of Management Studies*, 49 (2): 429–462. <https://doi.org/10.1111/j.1467-6486.2010.00989.x>
- Gillanders, R. and O. Neselevska (2018) Public Sector Corruption and Trust in the Private Sector. *Journal of International Development* 30 (8): 1288–1317. <https://doi.org/10.1002/jid.3306>
- Goel, R.K. and J.W. Saunoris (2022) Corrupt thy Neighbor? New Evidence of Corruption Contagion from Bordering Nations. *Journal of Policy Modeling* 44 (3): 635–652. <https://doi.org/10.1016/j.jpolmod.2022.05.004>
- Gray, C.W. and D. Kaufman (1998) *Corruption and Development*. Finance and Development, International Monetary Fund (March)
- Gründler, K. and N. Potrafke (2019) Corruption and Economic Growth: New Empirical Evidence. *European Journal of Political Economy* 60: 101810. <https://doi.org/10.1016/j.ejpoleco.2019.08.001>
- Habib, M. and L. Zurawicki (2002) Corruption and Foreign Direct Investment. *Journal of International Business Studies* 33: 291–307
- Hakkala, K.N. et al. (2008) Asymmetric Effects of Corruption on FDI: Evidence from Swedish Multinational Firms. *The Review of Economics and Statistics* 90 (4): 627–642
- Huntington, S.P. (1968) *Political Order in Changing Societies*. Yale University Press, London



- Huther, J. and A. Shah (2000) Anti-Corruption Policies and Programs: A Framework for Evaluation [Working Paper Series]. *Policy Research Working Paper* (2501). <http://hdl.handle.net/10986/19753>
- Jain, A.K. (2001) Corruption: A Review. *Journal of Economic Surveys* 15 (1): 71–121. <https://doi.org/10.1111/1467-6419.00133>
- Javorcik, B.S. and S.J. Wei (2009) Corruption and Cross-border Investment in Emerging Markets: Firm-level Evidence. *Journal of International Money and Finance* 28 (4): 605–624
- Jetin, B. (2018) Production Networks of the Asian Automobile Industry: Regional or Global? *International Journal of Automobile Technology and Management* 18 (4): 302–328. <https://doi.org/10.1504/IJATM.2018.097346>
- Jetter, M. and C.F. Parmeter (2018) Sorting through Global Corruption Determinants: Institutions and Education Matter – Not Culture. *World Development* 109: 279–294. <https://doi.org/10.1016/j.worlddev.2018.05.013>
- Kray, A, Kaufman, D. and Mastruzzi, M. (2010). The worldwide governance indicators: methodology and analytical issues. *Policy Research Working Papers*, 5430, The World Bank
- Kaufmann, D. (2015) *Corruption Matters*. Finance and Development, International Monetary Fund (September)
- Khodapanah, M. et al. (2022) Spatial Spillover Effects of Corruption in Asian Countries: Spatial Econometric Approach. *Regional Science Policy & Practice* 14 (4): 699–717. <https://doi.org/10.1111/rsp3.12368>
- Kim, Y.C. (ed) (2016) *Chinese Global Production Networks in ASEAN*. Springer, Berlin
- Leff, N.H. (1964) Economic Development Through Bureaucratic Corruption. *American Behavioral Scientist* 8 (3): 8–14. <https://doi.org/10.1177/000276426400800303>
- Leys, C. (1965) What Is the Problem about Corruption? *The Journal of Modern African Studies* 3 (2): 215–230
- Lustrilanang, P. et al. (2023) The Role of Control of Corruption and Quality of Governance in ASEAN: Evidence from DOLS and FMOLS Test. *Cogent Business & Management* 10 (1). <https://doi.org/10.1080/23311975.2022.2154060>
- Markusen, J.R. and K.E Maskus (2002) Discriminating among Alternative Theories of the Multinational Enterprise. *Review of International Economics* 10 (4): 694–707
- Mauro, P. (1995) Corruption and Growth. *The Quarterly Journal of Economics* 110 (3): 681–712
- Mungiu-Pippidi, A. and M. Fazekas (2020) How to Define and Measure Corruption. In: A. Mungiu-Pippidi and P.M. Heywood (eds) *A Research Agenda for Studies of Corruption*. Edward Elgar Publishing, Cheltenham, pp 7–26
- Nguyen, M.-L.T. et al. (2021) The Impact of Macroeconomic and Control of Corruption on Foreign Direct Investment Inflows. *Polish Journal of Management Studies* 24 (1): 236–249
- Pujiati, A. et al. (2023) The Detrimental Effects of Dirty Energy, Foreign Investment, and Corruption on Environmental Quality: New Evidence from Indonesia [Original Research]. *Frontiers in Environmental Science*. <https://www.frontiersin.org/articles/10.3389/fenvs.2022.1074172>
- Sabir, S. et al. (2019) Institutions and FDI: Evidence from Developed and Developing Countries. *Financial Innovation* 5 (1). <https://doi.org/10.1186/s40854-019-0123-7>
- Sanyal, R. and S. Samanta (2020) Bribery in International Business in European Union Countries: Patterns and Explanations. *Journal of East-West Business* 26 (2): 193–212. <https://doi.org/10.1080/10669868.2019.1704337>
- Spyromitros, E. and M. Panagiotidis (2022) The Impact of Corruption on Economic Growth in Developing Countries and a Comparative Analysis of Corruption Measurement Indicators. *Cogent Economics & Finance* 10 (1). <https://doi.org/10.1080/23322039.2022.2129368>
- Tacconi, L. and D.A. Williams (2020) Corruption and Anti-corruption in Environmental and Resource Management. *Annual Review of Environment and Resources* 45: 305–329
- Tanzi, V. (1998) Corruption Around the World: Causes, Consequences, Scope, and Cures. *Staff Papers - International Monetary Fund* 45 (4): 559. <https://doi.org/10.2307/3867585>

- Teixeira, A.A.C. and L. Guimarães (2015) Corruption and FDI: Does the Use of Distinct Proxies for Corruption Matter? *Journal of African Business* 16 (1–2): 159–179. <https://doi.org/10.1080/15228916.2015.1027881>
- United Nations (2015) Transforming Our World: The 2030 Agenda for Sustainable Development
- United Nations (2018) Global Cost of Corruption at Least 5 Per Cent of World Gross Domestic Product, Secretary-General Tells Security Council. Meeting Coverage: Security Council, 10 September 2018. <https://press.un.org/en/2018/sc13493.doc.htm>
- Urbina, D.A. (2020) The Consequences of a Grabbing Hand: Five Selected Ways in which Corruption Affects the Economy. *Economía* 43 (85): 65–88
- Vogl, F. (1998) The Supply Side of Corruption. *Finance and Development, International Monetary Fund* 35 (2). <https://www.imf.org/external/pubs/ft/fandd/1998/06/vogl.htm>
- Voyer, P.A. and P.W. Beamish (2004) The Effect of Corruption on Japanese Foreign Direct Investment. *Journal of Business Ethics* 50: 211–224
- Wang, S. et al. (2020) The Impact of Foreign Direct Investment on Environmental Pollution in China: Corruption Matters. *International Journal of Environmental Research and Public Health* 17 (18): 6477
- Wedeman, A. (2003) Development and Corruption: The East Asian Paradox. In: E. Gomez (ed) *Political Business in East Asia*. Routledge, Oxfordshire, pp 1–28
- Wei, S.J. (2000) How Taxing is Corruption on International Investors? *Review of Economics and Statistics* 82 (1): 1–11

**Bruno Jetin** is Associate Professor at Universiti Brunei Darussalam (UBD); he was also Director of the Institute of Asian Studies (2018–2022). Prior to joining UBD, he was a researcher at the Institute for Research on Contemporary Southeast Asia (IRASEC, CNRS-MAEE, Bangkok) and Associate Professor at the University Sorbonne Paris Nord where he was Deputy Director of the Research Center in Economics. He holds a PhD in economics from the University of Sorbonne Paris Nord. His current research areas include ASEAN and the Belt and Road Initiative, foreign investment and trade in the Asia–Pacific, income distribution and growth. He is also an expert on the automobile industry and the electric car.

**Jamel Saadaoui** is a lecturer and researcher in social sciences, specialising in several topics related to International Economics. Since 2013, he has been Senior Lecturer with Habilitation in Economics at the University of Strasbourg and is affiliated to the BETA laboratory for his research activities. He also teaches Economics and Statistics at the Faculty of Economics and Management, FSEG, at the University of Strasbourg. His recent works in Applied Economics explore the interactions between geopolitical tensions and the economy, the nature of long-run economic growth, the flattening of the Phillips curve in the EU regions and the buffering effects of the international reserve holdings.

**Haingo Ratiarison** is currently a student at the University of Strasbourg and is following a double training in Master 1 ‘Macroeconomics and European Policies’ and a selective diploma course allowing advanced initiation to research called ‘Magistère’. She holds a bachelor’s degree in economics at the Faculty of Economics and Management from the University of Strasbourg. In addition, she is one of the research assistants of Jamel Saadaoui, Senior Lecturer and researcher affiliated to the Bureau d’Economie Théorique et Appliquée-Centre National de la Recherche Scientifique (BETA-CNRS) laboratory in Strasbourg. Her research interests are corruption and tax evasion and their macroeconomic effects. She is also interested in development economics and European macroeconomics.

**Open Access** This chapter is licensed under the terms of the Creative Commons Attribution 4.0 International License (<http://creativecommons.org/licenses/by/4.0/>), which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license and indicate if changes were made.

The images or other third party material in this chapter are included in the chapter's Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the chapter's Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder.

