

FOREIGN DIRECT INVESTMENT IN SOUTHEAST ASIA: IS MALAYSIA FALLING BEHIND?

EE 462 Development Macroeconomics

Semester 1/2020

Reference: Athukorala, P-C. and Wagle, S. (2011). Foreign direct investment in Southeast Asia: Is Malaysia falling behind? *ASEAN Economic Bulletin*, 28(2), 115-133.

Summary (1)

- Motivations:
 - FDI as growth engine in developing countries
 - Trends of decreasing FDI inflows in Malaysia – worry about the country being caught in MIT
 - Loss of Malaysia's relative attractiveness to foreign investors
- Objective:
 - to examine patterns and determinants of FDI in Malaysia from a comparative SE Asia perspective
- Methods:
 - use gravity model to examine FDI flows from OECD countries to 5 ASEAN countries

Summary (2)

- Findings:
 - No evidence that FDI inflows to China has a negative impact on FDI inflows to Malaysia (or other Southeast Asian countries)
 - Indeed, Malaysia benefits from a complementary FDI relationship with China as a favoured location of high-end tasks (usually final assembly) within global production networks.

TABLE 1
FDI in ASEAN Countries, 1985–2009

<i>Region/economy</i>	1985–89	1990–96	1997–99	2000–04	2005	2006	2007	2008	2009
(A) Volume, US\$ million									
ASEAN-6 total	4,878	18,406	28,485	24,507	40,734	56,408	73,971	47,289	36,806
Indonesia	442	2,518	895	1,160	8,336	4,914	6,928	9,318	4,877
Malaysia	799	4,897	4,311	2,928	4,064	6,060	8,538	7,318	1,381
Philippines	449	1,064	1,416	1,031	1,854	2,921	2,916	1,544	1,948
Singapore	2,427	6,387	12,548	14,188	15,460	29,056	35,778	10,912	16,809
Thailand	744	2,038	5,822	4,584	8,067	9,517	11,355	8,544	5,949
Viet Nam	4	1,005	1,924	1,370	2,021	2,400	6,739	8,050	4,500
(B) Host-country composition (%)									
ASEAN-6 total	100	100	100	100	100	100	100	100	100
Indonesia	9.1	13.7	3.1	-4.7	20.5	8.7	9.4	19.7	13.3
Malaysia	16.4	26.6	15.1	11.9	10.0	10.7	11.5	15.5	3.8
Philippines	9.2	5.8	5.0	4.2	4.6	5.2	3.9	3.3	5.3
Singapore	49.8	34.7	44.1	57.9	38.0	51.5	48.4	23.1	45.7
Thailand	15.2	11.1	20.4	18.7	19.8	16.9	15.4	18.1	16.2
Viet Nam	0.1	5.5	6.8	5.6	5.0	4.3	9.1	17.0	12.2
(C) Percentage of gross domestic capital formation (GDCF)									
ASEAN-6 total	7.4	11.5	18.9	16.0	19.5	22.4	23.9	12.5	9.4
Indonesia	1.8	5.6	0.2	-4.0	12.3	5.6	6.4	6.6	2.9
Malaysia	8.7	19.1	17.0	11.9	14.4	18.6	21.2	16.8	3.5
Philippines	6.8	7.9	9.2	7.1	13.0	17.7	13.8	6.3	8.2
Singapore	31.7	31.5	39.7	56.4	60.0	94.6	89.3	20.8	32.9
Thailand	3.9	4.2	20.5	14.5	15.8	16.4	17.4	11.4	9.2
Viet Nam	0.6	32.7	26.4	12.2	11.6	11.8	24.8	25.5	12.8
Memo items:									
ASEAN share (%) in FDI inflows to,									
Developing countries	4.6	11.6	5.2	4.2	6.5	5.8	5.1	4.6	6.5
Developing countries excluding China	4.7	13.4	5.6	4.5	7.4	6.3	5.4	5.2	7.8
Developing Asian countries	40.4	42.2	28.1	20.1	23.8	26.1	28.6	16.7	15.8
Developing Asian countries excluding China	55.5	67.8	50.2	36.7	41.2	39.4	42.2	27.2	26.7

What's the trend of FDI inflows to ASEAN?

Which country is the largest recipient of FDI in the region?

FIGURE 2
Country Composition of FDI in ASEAN, 1990–2009 (%)

Which countries' FDI inflows were affected by the financial crisis in 1997?

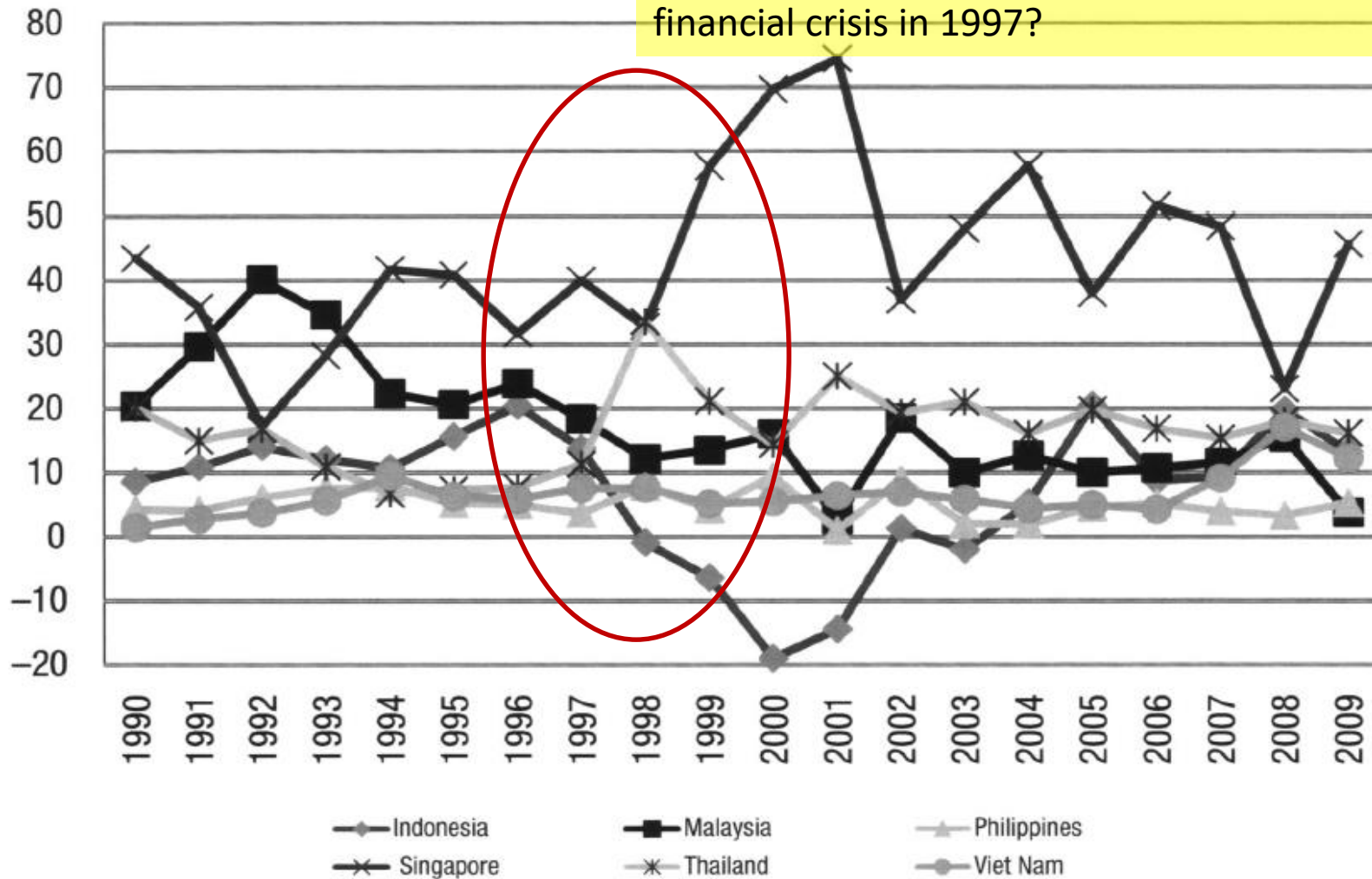
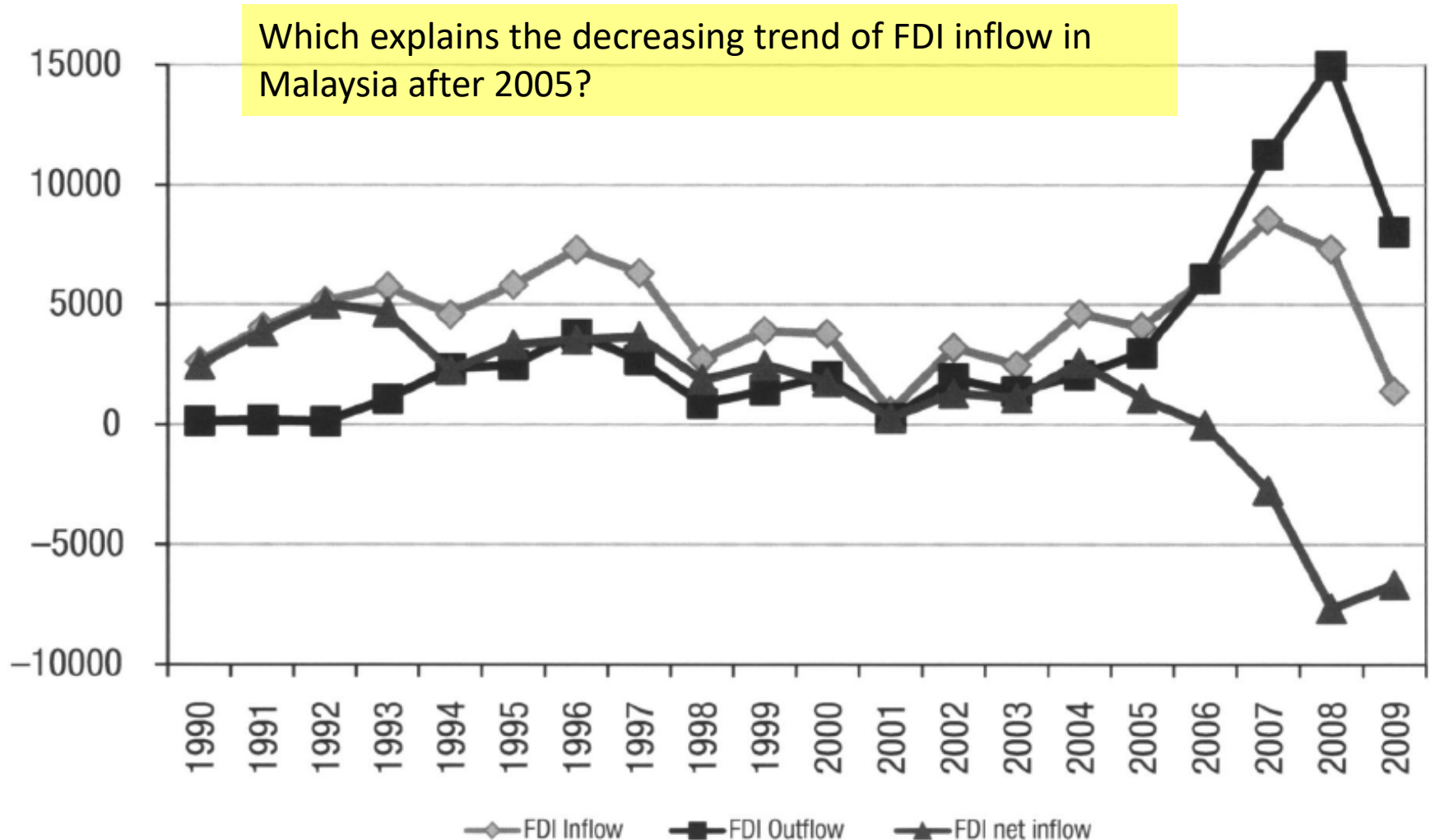


FIGURE 3
FDI in Malaysia: Inflow, Outflow and Net Inflow,¹ 1990–2009

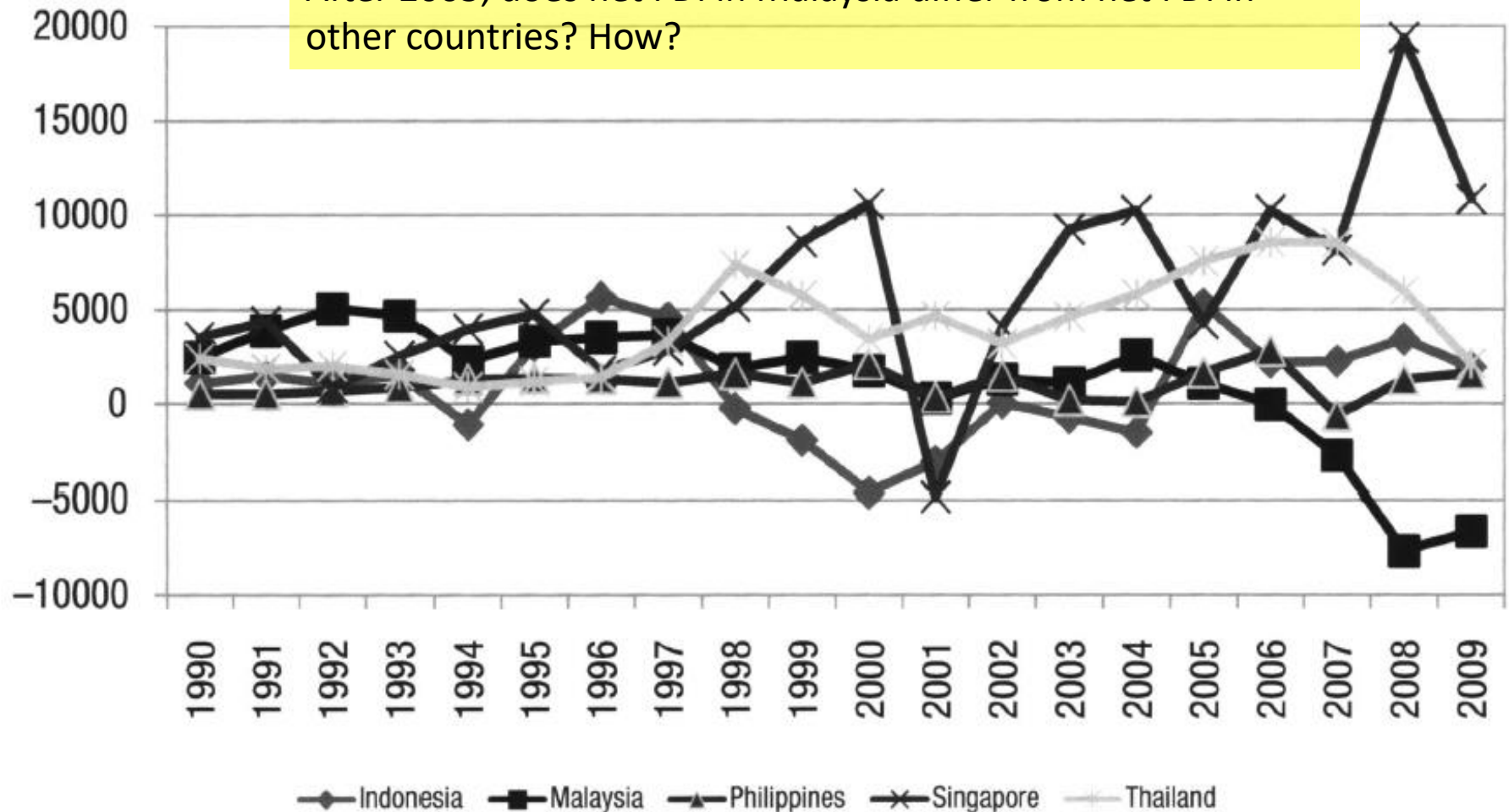


1. FDI inflow — outflow

SOURCE: Based on data compiled from UNCTAD, *World Investment Report* database.

FIGURE 4
Net FDI in ASEAN, 1990–2009

After 2005, does net FDI in Malaysia differ from net FDI in other countries? How?



1. FDI inflow — outflow

SOURCE: Based on data compiled from UNCTAD, *World Investment Report* database.

Analysis of the Determinants of FDI

- Main framework:
 - Gravity model
 - Hypothesis:
 - FDI between two countries increases with GDP and decreases with the “resistance” posed by geographic and policy barriers
 - Other explanatory variables:
 - Use of common language
 - Prior colonial relationship
 - FDI-related regulations and institutions
 - Education
 - Innovation capability
 - FDI into china
- Why do the authors include FDI into China as another control variable?

Estimation Equation

$$\begin{aligned} \text{Log of } (FDI)_{ijt} &= \beta_0 + \beta_1 (\text{Investment Policy})_{it} \\ &+ \beta_2 (\text{Education})_{it} + \beta_3 (\text{Innovation})_{it} \\ &+ \beta_4 (\text{Governance})_{it} + \beta_5 (\text{Log of Wage})_{it} \\ &+ \beta_6 (\text{Log of GDP})_{it} + \beta_7 (\text{Log of GDP})_{jt} \\ &+ \beta_8 (\text{Log of Distance})_{ij} + \beta_9 (\text{Colony})_{ij} \\ &+ \beta_{10} (\text{Language})_{ij} \\ &+ \beta_{11} (\text{Log of FDI into China})_{jt} \\ &+ \beta_{12} (\text{Malaysia Dummy})_i \\ &+ \beta_{13} (\text{Malaysia * Log of FDI into China})_{jt} \\ &+ \beta_{14} (\text{Inverse Mills Ratio}) \\ &+ \text{Country Dummies} \\ &+ \text{Period Dummies} + \varepsilon_{ij} \end{aligned}$$

Data

- FDI inflows from OECD countries to 5 ASEAN countries (Indonesia, Malaysia, Philippines, Singapore and Thailand) during 1995-2009
- Key variables?

TABLE 2
Determinants of FDI in ASEAN-5: Regression Results
 (Dependent variable: FDI inflow in log)

	(1)	(2)
Investment policy	0.032** (0.009)	0.032** (0.009)
Education	-0.052 (0.040)	-0.048 (0.039)
Innovation	0.012* (0.006)	0.012* (0.006)
Governance quality	-0.148 (0.154)	-0.148 (0.154)
Monthly wages (log)	2.385*** (0.508)	2.3894*** (0.511)
Host country GDP (log)	-2.275 (1.648)	-2.453 (1.712)
Source country GDP (log)	0.227 (0.214)	0.238 (0.213)
Bilateral distance (log)	-1.154** (0.310)	-1.128** (0.300)

Determinants of FDI in ASEAN-5: Regression Results
(Dependent variable: FDI inflow in log)

	(1)	(2)
Common language	1.391** (0.377)	1.369** (0.372)
Colony	0.821 (0.546)	0.838 (0.528)
FDI into China (log)	0.713*** (0.089)	0.683*** (0.098)
FDI_China*Malaysia	0.006 (0.054)	0.006 (0.053)
Inverse Mills Ratio	0.427** (0.146)	
Constant	46.326 (42.380)	50.759 (43.972)
<i>N</i>	315	315
R-sq.	0.616	0.615

NOTE: Standard errors in parentheses, clustered by host country; * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

TABLE 3
Openness on Foreign Equity Ownership (%)

	<i>Mining, oil and gas</i>	<i>Agri- culture and forestry</i>	<i>Light Manu- facturing</i>	<i>Telecom</i>	<i>Electricity</i>	<i>Banking</i>	<i>Insurance</i>	<i>Transport</i>	<i>Media</i>	<i>Construction, tourism and retail</i>	<i>Health care and waste management</i>
Indonesia	97.5	72	68.8	57	95	99	80	49	5	85	82.5
Malaysia	70	85	100	39.5	30	49	49	100	65	90	65
Philippines	40	40	75	40	65.7	60	100	40	0	100	100
Singapore	100	100	100	100	100	100	100	47.4	27	100	100
Thailand	49	49	87.3	49	49	49	49	49	27.5	66	49

SOURCE: World Bank (2010).

TABLE 4
Indicators of Starting a Foreign Business and Arbitrating Disputes

<i>Starting a foreign business</i>			<i>Arbitrating commercial disputes</i>			
<i>No. of procedures</i>	<i>No. of days</i>	<i>Ease of establishment index^a</i>	<i>Strength of laws index^a</i>	<i>Ease of process index^a</i>	<i>Extent of judicial assistance index^a</i>	
Indonesia	12	86	52.6	95.4	81.8	41.3
Malaysia	11	14	60.5	94.9	81.8	66.7
Philippines	17	80	57.9	95.4	87	33.7
Singapore	4	9	78.9	94.9	81.8	93.5
Thailand	9	34	60.5	84.9	81.8	40.8

NOTE: a. The index varies between 0 (worst score) and 100 (best score).

SOURCE: World Bank (2010).

TABLE 5
FDI in Malaysia by industry/sector, 1985–2010^a

<i>Year</i>	<i>1985</i>	<i>1993</i>	<i>1995</i>	<i>2000</i>	<i>2005</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010^c</i>
(a) Volume, US\$ million										
Manufacturing	343	2,226	3,129	6,353	6,894	11,208	16,714	17,033	8,501	4,318
Food	24	72	48	278	385	442	721	803	576	591
Textiles and clothing	13	185	189	312	99	224	424	118	97	42
Paper, printing and Publishing	41	48	39	401	252	188	876	263	147	62
Chemicals and chemicals products	12	685	729	254	454	2,493	1,149	767	2,447	433
Petroleum and gas	0	0	157	618	194	3,118	4,183	794	344	114
Rubber and rubber products	12	15	31	248	204	195	154	208	64	251
Non-metallic mineral products	45	45	501	465	243	318	393	366	1,873	227
Basic Metal products	60	306	189	207	846	743	3,682	7,439	755	557
Fabricated metal products	18	37	114	108	200	361	199	310	400	482
Electrical & electronic products	45	711	948	3,206	3,642	2,733	4,570	5,131	1,386	1,217
Transport equipment	75	123	184	256	374	395	362	834	411	343
Other sectors ^b	43	217	522	2,571	1,306	1,330	1,412	1,092	1,030	1,062
Total	386	2,442	3,651	8,845	8,201	12,538	18,126	18,125	9,530	5,400

