FDI Lecture

Wednesday October 21

Some Terminology

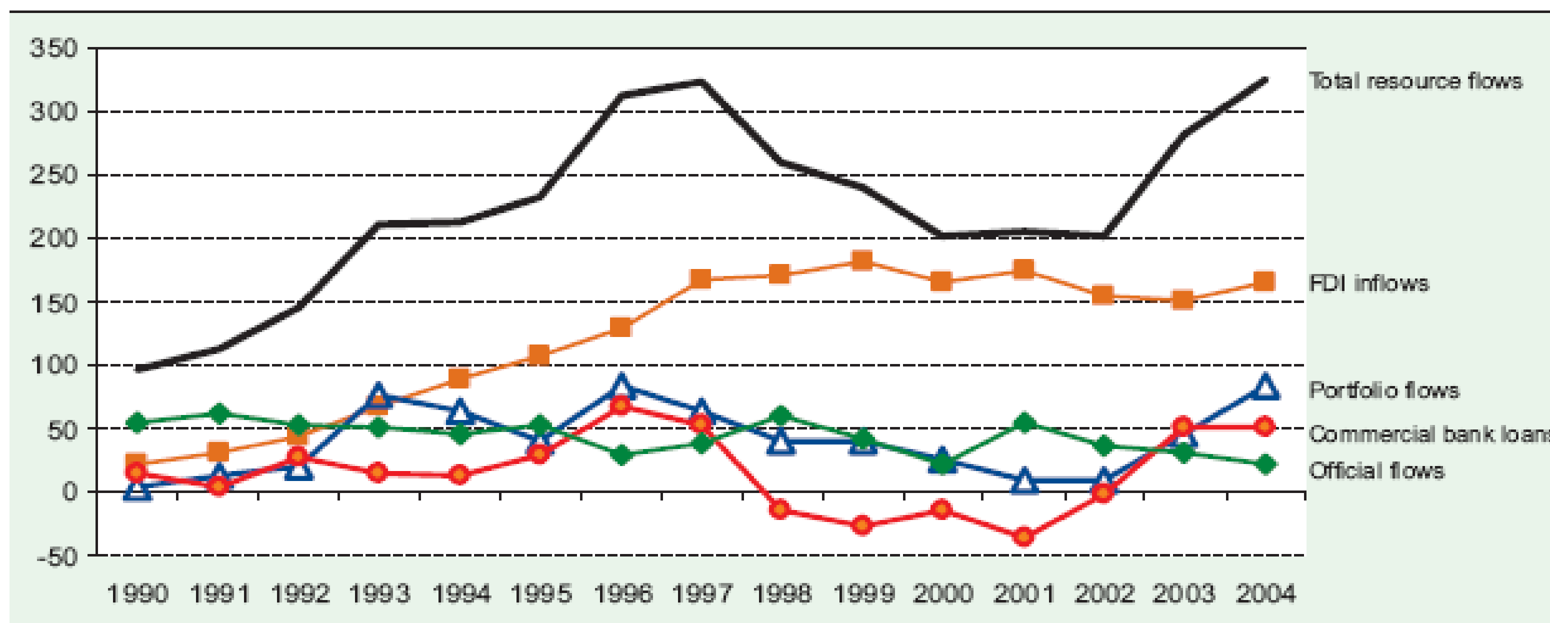
- Foreign Direct Investment (FDI): international capital flow undertaken by an MNC. Greenfield versus M & A.
- Multinational Corporation (MNC): corporation with controlled operations in 2 or more countries
- “parents” versus “affiliates”
- Portfolio Investment: < 10 % stake
- Inward versus outward flows
- Horizontal FDI: locate same stages of production in different countries
- Vertical FDI:locate different stages of production in different countries
- Offshoring: any activity done abroad
- Outsourcing: contracting out part of firm activity

How important are MNCs?

- For countries that have an extensive network of overseas affiliates—such as the US, UK, Netherlands, and Switzerland, affiliate sales tend to swamp export flows.
- In manufacturing and primary products, local sales by US-owned affiliates are over 4 times the level of US exports to the UK, Germany, Norway, Brazil and Spain.
- Nearly 80 % of two-way trade between US and Japan goes from parent to foreign subsidiary and vice versa. Globally, between one-third and half of total trade is “intra-firm” trade.
- FDI is the largest source of external finance for developing countries, and is considered to be a more stable source of financing

FDI is the largest source of external finance for developing countries

Figure I.2. Total resource flows[a] to developing countries[b], by type of flow, 1990–2003
(Billions of dollars)



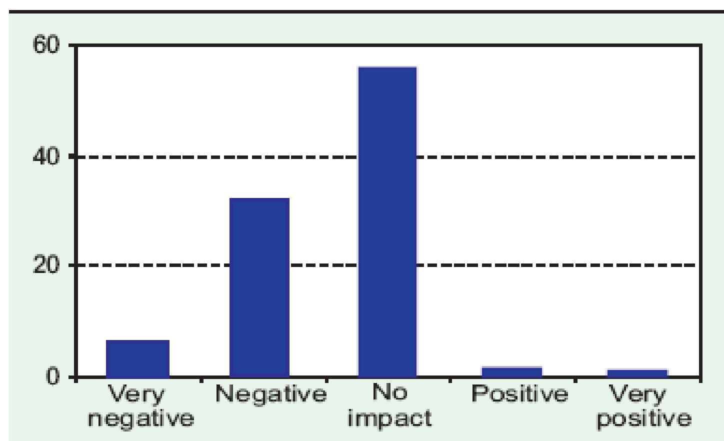
Source: UNCTAD, based on World Bank 2005a.

[a] Defined as net liability transactions of original maturity of greater than one year.

[b] The World Bank classification is used here. It differs from UNCTAD's classification in that it includes CEE countries under developing countries.

FDI is also much more stable than other flows

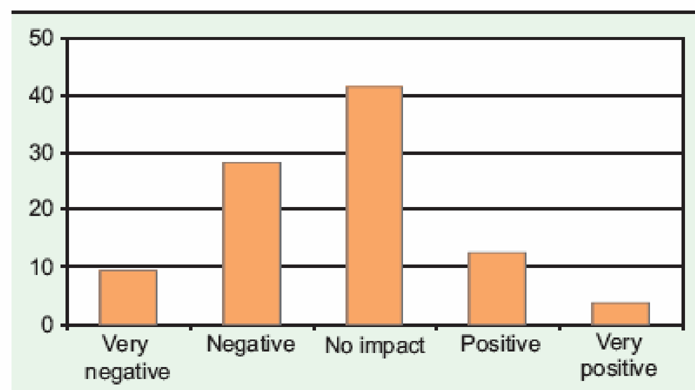
Figure I.15. Impact of financial instability on FDI flows 2008–2010
(Per cent of responses to the UNCTAD survey)



Source: UNCTAD, 2008b.

Note: The survey question was: To what extent have your actual FDI and short-term investment plans been affected by the financial instability following the sub-prime loan market crisis?

Figure I.17. Impact of depreciation of the United States dollar on global FDI flows for 2008–2010
(Per cent of responses to the UNCTAD survey)

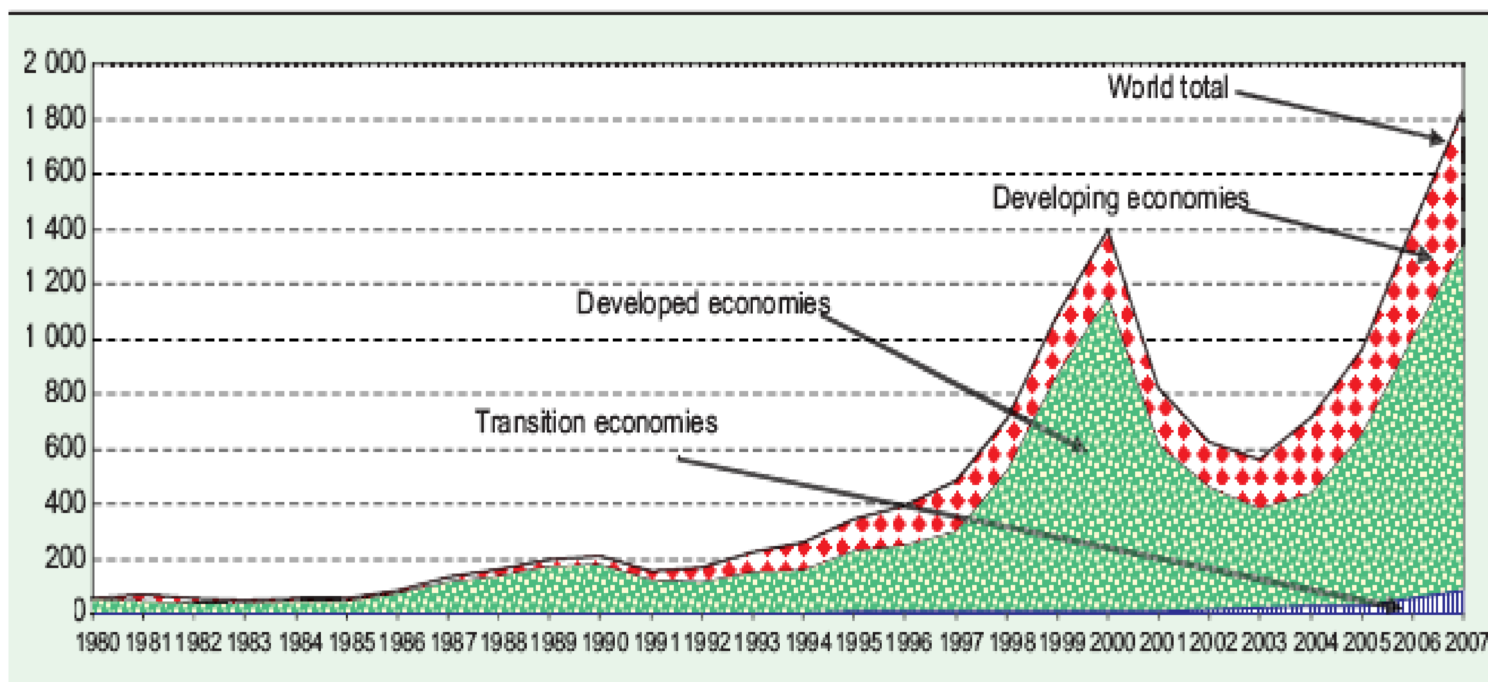


Source: UNCTAD, 2008b.

Note: The survey question was: To what extent have your actual FDI and short-term investment plans been affected by the depreciation of United States dollar?

But most FDI comes from and goes to Developed Countries

Figure I.1. FDI inflows: global and by groups of economies, 1980–2007
(Billions of dollars)



Source: UNCTAD FDI/TNC database (www.unctad.org/fdistatistics) and annex table B.1.

Table II.1. FDI flows, by economic group and region, 2005–2007

(Billions of dollars and per cent)

Region	FDI inflows			FDI outflows		
	2005	2006	2007	2005	2006	2007
World	959	1 411	1 833	881	1 323	1 997
Developed economies	611	941	1 248	749	1 087	1 692
Developing economies	316	413	500	118	212	253
Africa	29	46	53	2	8	6
Latin America and the Caribbean	76	93	126	36	63	52
West Asia	43	64	71	12	23	44
South, East and South-East Asia and Oceania	168	210	249	67	118	151
Transition economies (South-East Europe and CIS)	31	57	86	14	24	51
Memorandum: percentage share in world FDI flows						
Developed economies	63.8	66.7	68.1	85.0	82.2	84.8
Developing economies	33.0	29.3	27.3	13.3	16.0	12.7
Africa	3.1	3.2	2.9	0.3	0.6	0.3
Latin America and the Caribbean	8.0	6.6	6.9	4.1	4.8	2.6
West Asia	4.4	4.5	3.9	1.4	1.8	2.2
South, East and South-East Asia and Oceania	17.5	14.9	13.6	7.6	8.9	7.5
Transition economies (South-East Europe and CIS)	3.2	4.1	4.7	1.6	1.8	2.6

Source: UNCTAD, FDI/TNC database (www.unctad.org/fdistatistics) and annex table B.1.

The analytical framework for DFI: why do firms set up abroad?

Why move abroad? Let's consider a concrete problem. Consider the Mexican auto industry. In terms of production, Mexico is largely self-sufficient in autos. But firms that produce autos are mostly US subsidiaries. This leads us to two questions:

Why don't US firms concentrate all their production in the US and export cars to Mexico?

Why don't Mexican firms produce the autos themselves?

Four primary reasons for DFI

- Horizontal “market-seeking” DFI
- Vertical “factor-seeking” DFI
- Internalization
- Exchange Rate Hedging

Horizontal or “market-seeking” FDI

Why is being near the target market important?

- Tariff or quota jumping DFI.
- Industries where transport costs are important.
- Any service oriented business.
- Sectors where consumers shape product specifications or locating near specialized suppliers is important.
- Technology spillovers.

BUT in a world where scale economies are important (cars, steel, etc) there will be <u>trade-offs</u> between the gains from locating near consumers and the losses from not locating all production in a single location (“proximity-concentration trade-off”). One way to minimize the trade-off is to set up foreign subsidiaries or joint ventures where the potential market is very large.

Implication: more DFI in regions with large internal markets. China is currently the biggest recipient of DFI in Asia, and the largest destination for non-developed country DFI.

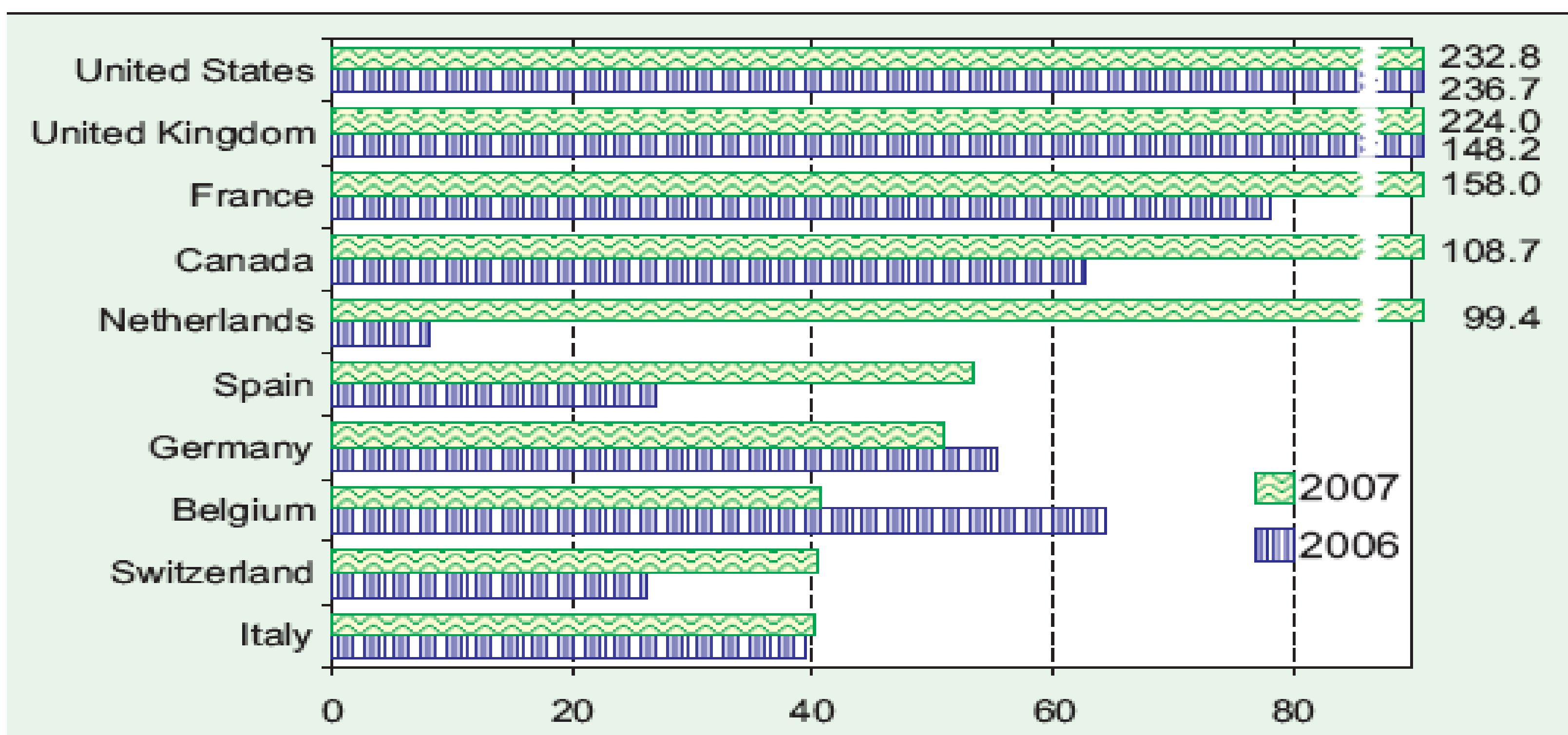
Table I.20. UNCTAD Survey 2008–2010: the most attractive locations for FDI in the next three years (Responses and comparison with the 2007–2009 survey responses)

Economies	2007-2009 survey
China	56
India	45
United States	38
Russian Federation	23
Brazil	14
Viet Nam	13
United Kingdom	10
Australia	10
Germany	7
Mexico	7
Poland	7

Economies	2008-2010 survey
China	55
India	41
United States	33
Russian Federation	28
Brazil	22
Viet Nam	12
Germany	9
Indonesia	8
Australia	7
Canada	6
Mexico	6
United Kingdom	6

Source: UNCTAD, 2008b.

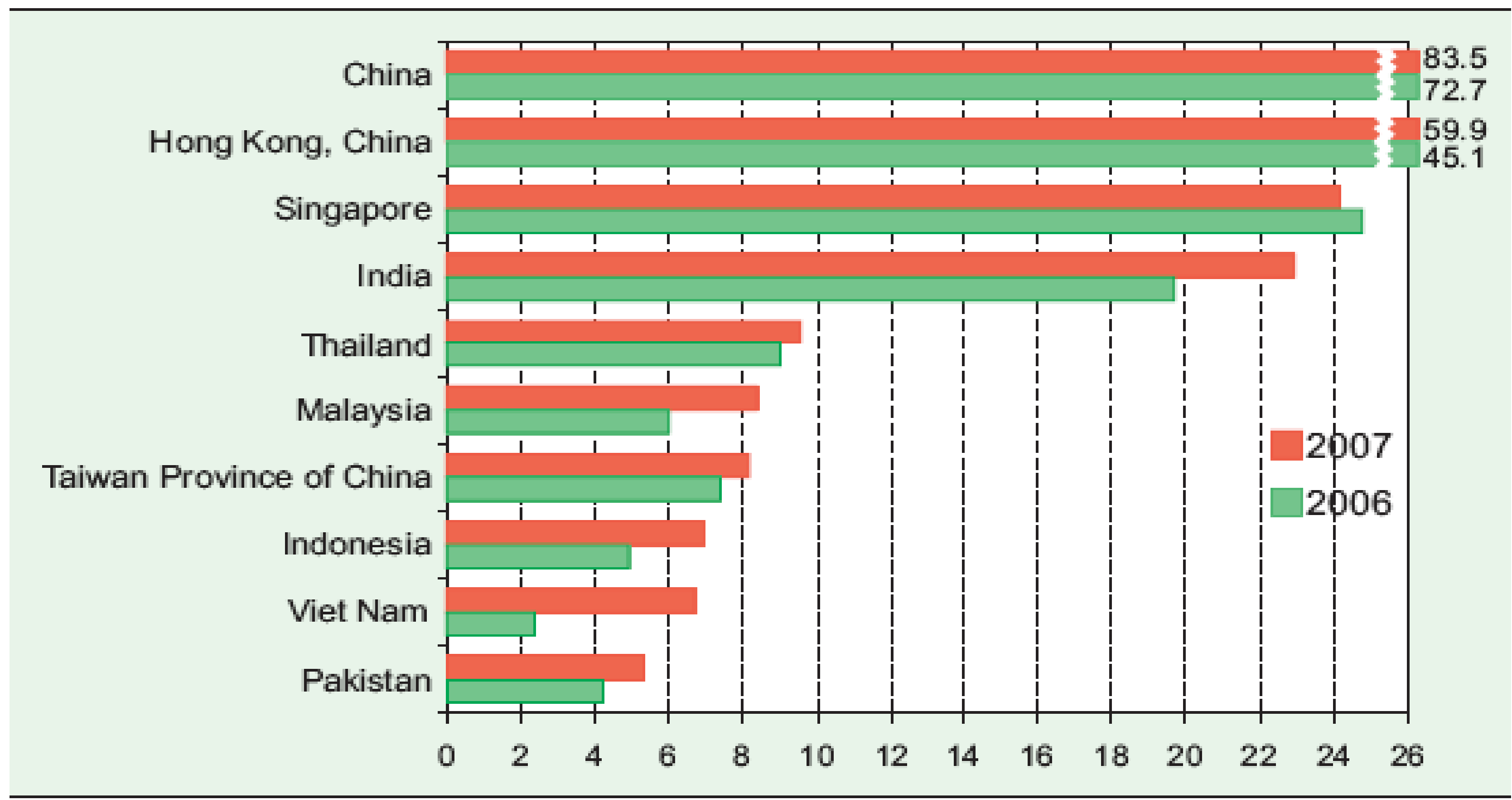
Figure II.30. Developed countries: top 10 recipients of FDI inflows,[a] 2006–2007
(Billions of dollars)



Source: UNCTAD, FDI/TNC database (www.unctad.org/fdistatistics) and annex table B.1.

[a] Ranked by magnitude of 2007 FDI flows.

Figure II.8. South, East and South-East Asia: top 10 recipients of FDI inflows,[a] 2006–2007
(Billions of dollars)



Source: UNCTAD, FDI/TNC database (www.unctad.org/fdistatistics) and annex table B.1

[a] Ranked by magnitude of 2007 FDI flows.

Most US outward FDI is of the horizontal type

Table 1: Composition of Sales of US Affiliates Abroad, 1999, in Millions of Dollars.

	Local Sales in Host Country		Sales Back to US		Sales to Unaffiliated Parties in Other Foreign Countries		Sales to Related Affiliates in Other Foreign Countries	
	Dollars	% of Total	Dollars	% of Total	Dollars	% of Total	Dollars	% of Total
All US Activity	1,494,903	67.4%	230,975	10.4%	216,613	9.8%	276,904	12.5%
Manufacturing	651,982	58.9%	165,731	15.0%	110,119	9.9%	179,533	16.2%
Non-Manufacturing	842,921	75.8%	65,244	5.9%	106,494	9.6%	97,371	8.8%
Canada	197,222	70.1%	78,081	27.8%	3,600	1.3%	2,348	0.8%
Europe	803,860	65.9%	53,629	4.4%	159,130	13.0%	203,850	16.7%
Asia and Pacific	304,177	71.4%	47,255	11.1%	30,944	7.3%	43,904	10.3%
Latin America	165,678	65.9%	43,544	17.3%	18,620	7.4%	23,722	9.4%

Source: Table III.F.1, US Bureau of Economic Analysis

Vertical or "factor-seeking" foreign investment

- Foreign investors seek factors:
  - natural resources
  - cheap labor
- With nationalizations of many natural resource sectors such as petroleum and copper in the 1970s, natural-resource seeking DFI became less important. But as global competition becomes tougher, more and more firms are moving in search of cheaper labor. Examples: Japanese firms locating in other Asian countries to offset higher labor costs at home.
- This kind of DFI is likely if:
  - Stages of production can be separated.
  - Clearly, countries need to differ in either factor endowments or returns to factors.

Internalization

This explanation for locating abroad focuses on firm-specific attributes that would lead to the establishment of a subsidiary. For a multinational to serve foreign markets via direct investment instead of exporting or licensing, there must exist some "internalization" advantage for the firm to do so.

One case would be where the firm cannot sell its ideas through licensing or franchising because contract enforcement is a problem.

Franchising may not be desirable because the firm cannot impose quality or set standards through the franchise. Another reason to locate abroad, in a high tech company, could be that licensing may impart technology to a future competitor.

On the other hand, there are many reasons why arms-lengths agreements could be desirable--especially if resources involved in setting up production abroad are large, the venture appears risky, and the target market is small.

Exchange Rate Hedging

Fluctuating exchange rates can lead firms to locate abroad for two reasons:

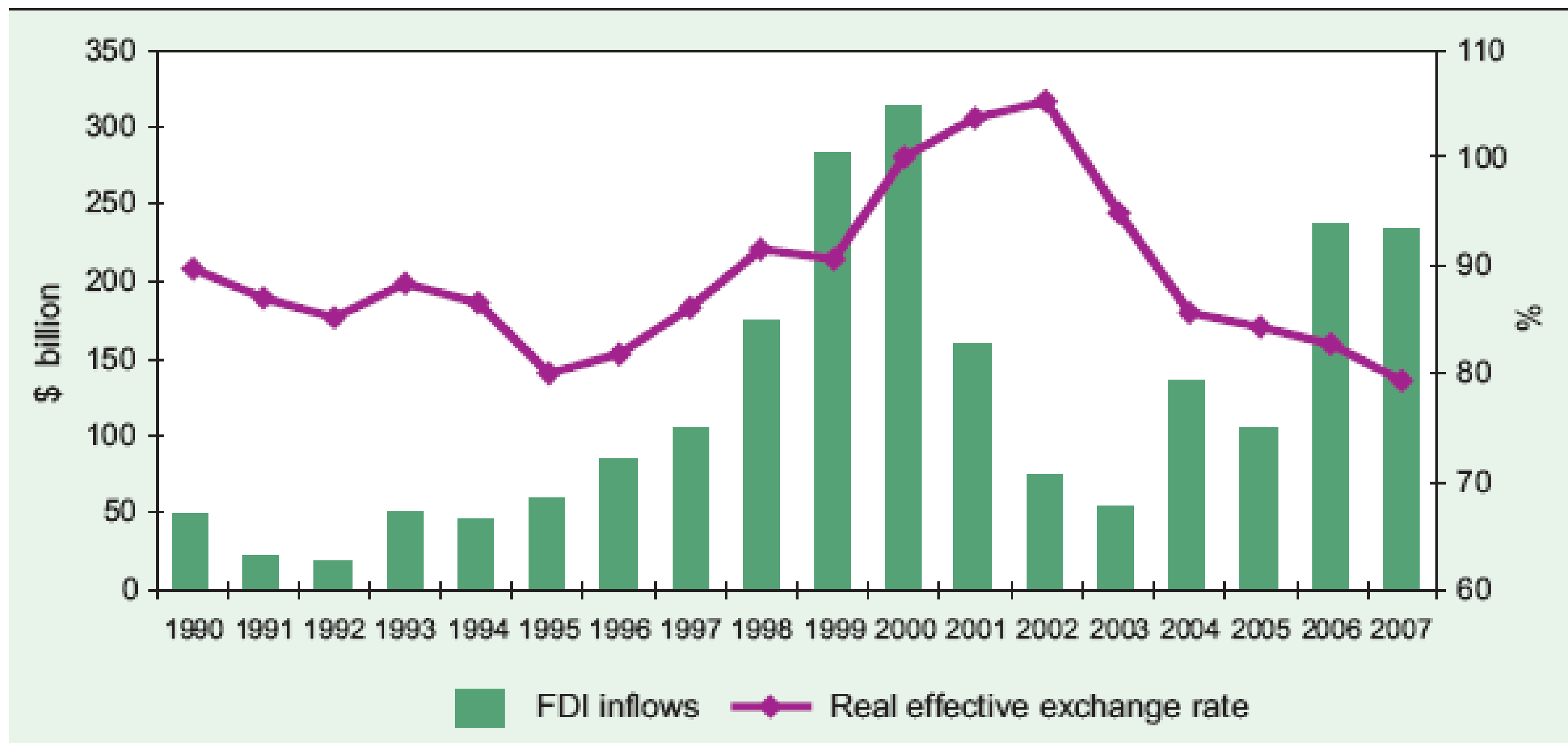
(1) A weak exchange rate can mean that foreign assets can be acquired at a bargain

(2) Locating abroad can help firms hedge both production costs and final goods prices (hence revenues) against exchange rate movements.

Graph shows that dollar depreciation (falling violet curve) associated with more FDI inflows into USA

strategies tend to

Figure I.18. FDI inflows to the United States and the real effective exchange rate, 1990–2007



Source: UNCTAD, FDI/TNC database (www.unctad.org/fdistatistics) and IMF's *International Financial Statistics*, June 2008 (for data on exchange rate).

Note: Real effective exchange rate is based on relative normalized unit labour costs.

What about tax considerations?

- Expectation: lower corporate tax rates make locating in host country more attractive
- Reality: not so clear, in part because other factors discussed earlier matter more (market size/access, low production costs)
- Tax systems can make low corporate tax rates irrelevant if firms are taxed on worldwide income

Impact of FDI on local economy

- Jobs and wages
- Technology transfer
  - Joint ventures (internal to firm)
  - Externalities or “spillovers” (external to firm)
- Pollution havens
- Source of capital
- Expectation of gains leads countries to promote FDI

Table I.7. National regulatory changes, 1992–2007

Item	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Number of countries that introduced change	43	56	49	63	66	76	60	65	70	71	72	82	103	92	91	58
Number of regulatory changes	77	100	110	112	114	150	145	139	150	207	246	242	270	203	177	98
More favourable	77	99	108	106	98	134	136	130	147	193	234	218	234	162	142	74
Less favourable	0	1	2	6	16	16	9	9	3	14	12	24	36	41	35	24

Source: UNCTAD database on national laws and regulations.

Impact on Jobs/wages

- Typically, MNCs pay higher wages, even after controlling for firm size, industry, skill mix
- Contrary to fear that MNCs "exploit" local work force
- Typical regression:

$$log(wage) = \alpha FDI + \beta Controls$$

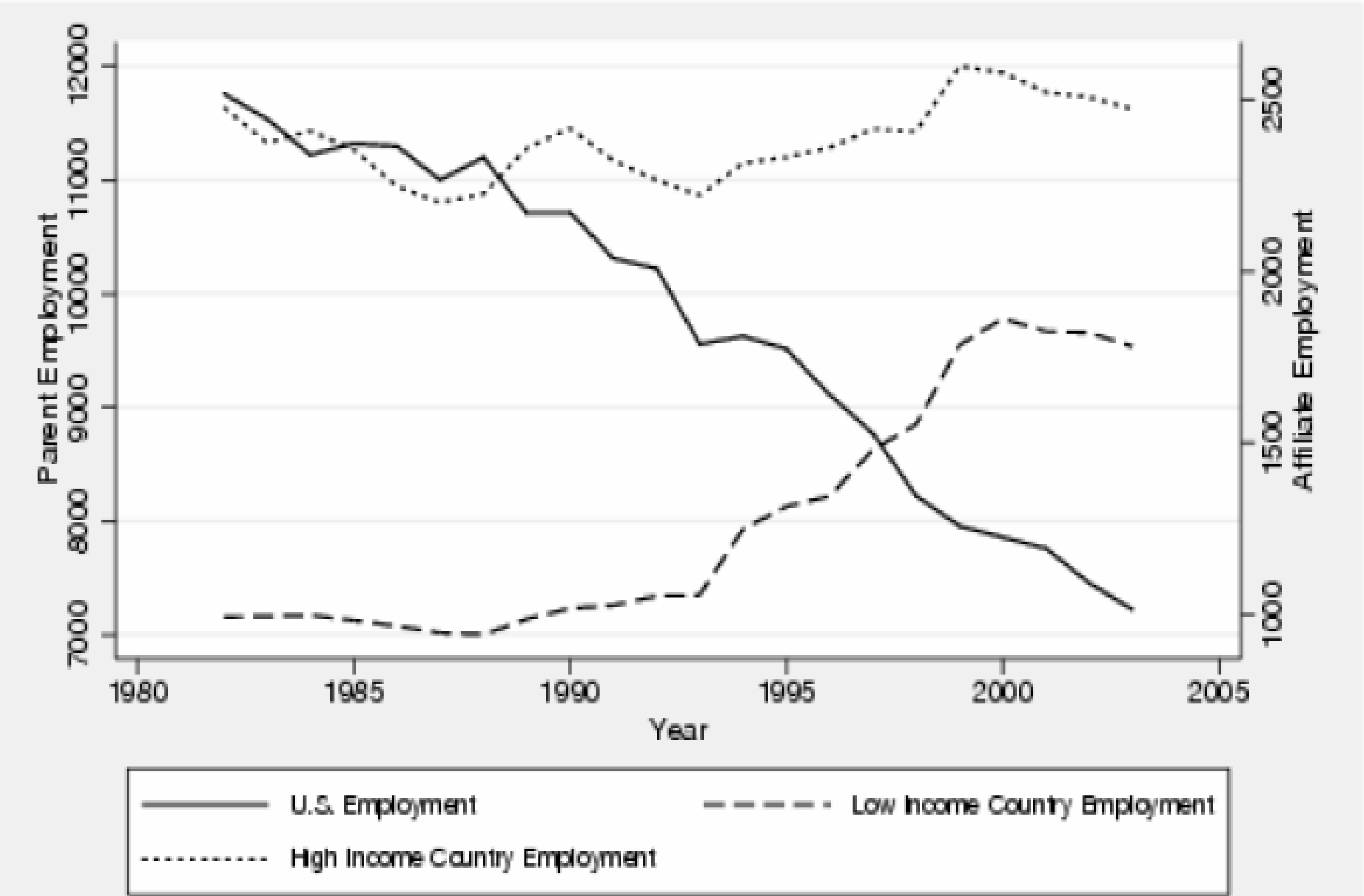
- Impact on employment:
  - Developing countries: inflows exceed outflows
  - Developed countries: outflows exceed inflows BUT negative impact on domestic jobs limited to firms locating in low wage countries

(Thousands of employees)

Host/home economy	Foreign affiliates in the host economy			Foreign affiliates of home-based TNCs		
	2003[a]	2004	2005	2003[a]	2004	2005
Albania	..	..	24.1	..	..	..
Australia[b]	..	..	..	321.9[c]	..	..
Austria	240.9	232.8	220.7	327.7	370.5	431.7
Belgium	..	..	..	209.7	..	..
Canada[b]	..	..	..	919.0[c]	..	..
China	..	24 000.0	..	..	..	..
Czech Republic	600.1	620.4	636.6	16.8	24.8	27.4
Finland	219.2[f]	..	..	324.5[b]	331.8[b]	350.7[b]
France	1 880	..	..	..	..	..
Germany	2 162.0	2 280.0	2 138.0	4 517.0	4 605.0	4 977.0
Greece	..	..	..	32.0	66.0	68.0
Hong Kong, China[b]	..	543.0	579.0	..	..	..
Hungary	606.7[g]	..	..	..	..	..
Ireland	149.1	149.5	150.4	..	..	..
Israel	81.9	..	..	125.6	..	..
Italy	560.1[h]	..	..	642.5[h]	..	..
Japan	434.9	430.9	525.6	3 766.2	4 138.6	4 360.5
Luxembourg	99.5	72.6	74.9	120.4	128.6	145.2
Macao, China	28.6	36.7	45.2	5.2	10.9	14.5
Madagascar	193.8[i]	..	..	..	..	..
Mozambique[d]	13.6	13.2	15.1	..	..	..
Nepal[d]	73.5[h]	..	..	..	..	..
Norway	78.6	..	..	..	..	..
Poland[b]	648.3[g]	..	..	..	..	..
Portugal[b]	150.4[c]	..	..	24.9	..	..
Singapore[e]	155.0	157.6	..	..	..	..
Slovenia	62.1	64.0	64.6	..	..	..
Sri Lanka[d]	397.2	415.7	..	..	..	..
Sweden[b]	564.2	544.6	557.5	956.4	953.6	..
Switzerland	301.2	315.0	324.1	1 808.9	1 861.7	2 002.2
Tunisia	..	..	259.8	..	..	..
United Republic of Tanzania[d]	80.6[g]	..	..	..	..	..
United States[b]	5 713.2	5 617.1	5 530.1	9 657.5	10 068.4	10 333.3

Figure 3. Domestic and Foreign Employment of U.S. Based Multinationals

Source: BEA



Note: Author's calculations based on the most comprehensive available data and is based on firm–level surveys on US direct investment abroad, collected each year by the Bureau of Economic Analysis (BEA) of the US Department of Commerce. Using these data, we compute number of employees hired abroad by country by year and then aggregate these numbers by Low (High) Income countries according to World Bank classifications.