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Cross-border mergers and acquisitions

The facts as a guide for international economics

By Steven Brakman
Harry Garretsen and
Charles van Marrewijk

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2 Cross-border mergers and acquisitions: the facts as a guide for international economics^{1*}

Steven Brakman, Harry Garretsen and Charles van Marrewijk

Abstract

Using a detailed and large -border dataset on cross merger and acquisitions, we discuss the relationships between theory and the following observed empirical characteristics: (1) Most FDI is in the form of M&As, (2) firms engaged in M&As seem to be “market-seeking,” (3) M&As come in waves (the most recent wave is still unfolding), (4) economic integration (international deregulation) stimulates M&As, (5) the size of and inequality between M&As grows over time. Our contention is that these stylized facts drive and should drive recent theoretical contributions in the field of international economics that try to understand cross-border mergers and acquisitions. Although some models, notably Neary’s (2003) explain a number of characteristics, a full-fledged model of cross-border M&As that can, at least in principle, deal with all the characteristics is still lacking.

2.1 Introduction

Theoretical developments in international economics are sometimes motivated by empirical findings. The “new trade theory,” for example, was inspired to a large extent by empirical work on intra-industry trade (Neary, 2004b). This also holds for the recent outburst of research on foreign direct investment (FDI) as one of the driving forces behind the current wave of globalization. Many observers have noted that FDI grows much faster than world merchandise trade (Barba [AU1] Navaretti and Venables, 2004). This is clearly a stylized fact in search of an explanation. For years, students of FDI used Dunning’s (1993) OLI-categorization scheme to understand why firms engage in FDI. Notwithstanding its usefulness in the case of FDI, a categorization scheme is not a model. New theories are being developed in which the firm’s decision on FDI engagement is determined in a full-fledged microeconomic model.

¹ We thank Utz Weitzel for his help with the Thomson dataset.

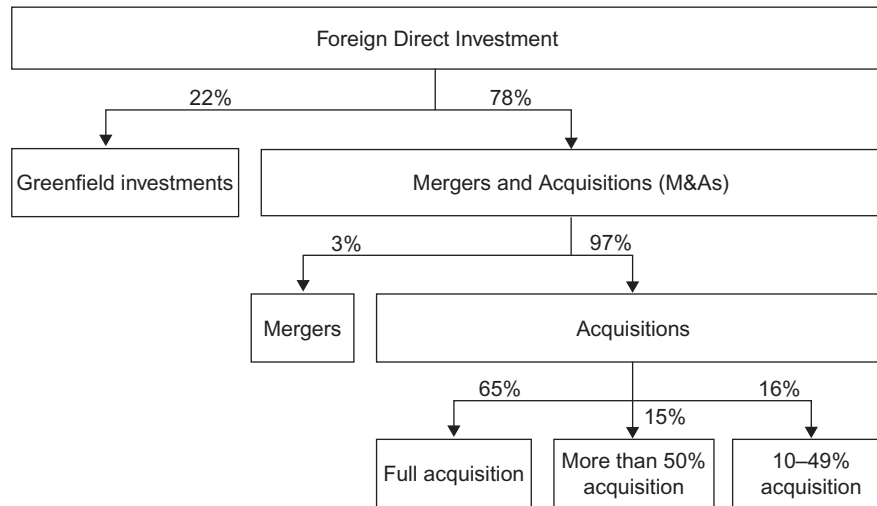
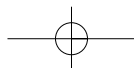


Figure 2.1 Distribution of different types of FDI.

Source: Brakman, Garretsen, and van Marrewijk (2006); data UNCTAD (2000); 78–22% in value terms, other percentages in number of deals.

Interestingly, looking at FDI as a broad category obscures the fact that most FDI is in the form of so-called cross-border mergers and acquisitions (henceforth M&As). Figure 2.1 shows a decomposition of FDI from which it is clear that M&As constitute the bulk of FDI, whereas Greenfield FDI is less important than M&As. The main difference between these two investments is that in an M&A “control of assets and operations is transferred from a local to a foreign company, the former becoming an affiliate of the latter” (UNCTAD, 2000, p. 99). Only recently have models in international economics been developed that enable us to understand M&As (Neary, 2004b). Neary’s model takes the standard explanations for M&As a step further. Usually two motives are mentioned to explain M&As: a strategic motive (competition reduction) and an efficiency motive (cost reductions). An explanation of cross-border M&As, however, also must explain the cross-border part of the deals. Trade theory suggests that comparative advantage could be included in full explanations of M&As; see Neary (2004a). A different but equally novel line of research in international economics [AU1] (see Barba-Navaretti and Venables, 2004, or Helpman, 2006, for excellent surveys) seeks to understand the conditions under which firms decide to locate (part of) their production abroad (the off-shoring decision). When they decide to off-shore, some firms do so under the flag of FDI, while other firms go for outsourcing. In this literature, and in contrast to the empirical relevance illustrated in Figure 2.1, the role of cross-border M&As is, however, largely ignored. The aim of this chapter is to present stylized facts on cross-border M&As. This is interesting in its own right (see also Evenett, 2004), but it may also act as



a guide for the recent upsurge of interest in FDI and its alternatives in international economics regarding the facts that the modern theory of FDI should be able to explain. When highlighting the stylized facts in this chapter, we therefore briefly point out those FDI models in international economics that are capable of coping with the facts under consideration.

We proceed as follows. Section 2.2 presents basic characteristics of M&As using the database of Thomson Financial Securities Data (hereinafter, Thomson). The advantage of this source over UNCTAD data is that it consists of individual data on each M&A, enabling us to look at M&As at a very detailed level. Section 2.3 provides information at the country level. Section 2.4 looks at the regional composition of target and acquirer, both of which are typically found in the OECD countries. Section 2.5 confronts gross M&As with net M&As and discusses some developments over time, confirming that emerging markets, such as China and Eastern Europe, are increasingly becoming net targets. Section 2.6 argues that the inequality within the set of M&As tends to increase over time. Section 2.7 discusses the characteristics of firms involved in FDI. Section 8 concludes and summarizes our findings.

2.2 Cross-border M&As: basic characteristics

Our overview of the structure and developments of cross-border M&As is based on Thomson's Global Mergers and Acquisitions database, which provides the best and most extensive data source for M&As to date. Thomson gathers information on M&As exceeding 1 million U.S. dollars. Its main sources of information are financial newspapers and specialized agencies like Bloomberg and Reuters. Our Thomson dataset begins in 1979 and ends in August 2006. Initially, Thomson focused on American M&As. Systematic M&A data for almost all countries are available for about the last 20 years. In presenting the data we therefore focus on the period 1986–2005 usually grouped in four 5-year subperiods, thereby mitigating the large annual fluctuations characteristic of M&As and allowing us to discern longer term trends.

We collected information on all completed/unconditional cross-border M&As with a deal value of at least \$10 million. In the period 1986–2005 this provided us with 27,541 cross-border M&As; see the overview in Table 2.1.

Usually, the time difference between the date of announcement of an M&A deal and the date the deal is effective is nonexistent or very short (such that 99.7% of the deals are immediately effective). The announced date is the same as the effective date for about 38% of the M&A deals. On average, the difference between these two dates is 0.18 per year. We therefore used the date of announcement for classifying the M&A deals over time; see also Brakman, Garretsen, and van Marrewijk (2005, 2006). In general, a large share of a company (on average, 75.5%) is acquired by the deal, leading to a majority ownership after the deal is completed (on average, owning 80.1% of the acquired company). This indicates that most firms already have intimate knowledge of the firm being

[AU2]

[AU2/AU3]

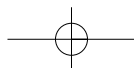


Table 2.1 Overview of cross-border M&As

	Number of deals	Percentage
Cross-border M&As, 1986–2005	27,541	
Effective M&As	27,461	99.7
Average percentage of shares acquired		75.5
Average percentage of shares owned after deal		80.1
Number of tender offers	2,476	9.0
Number of horizontal M&As (2-digit level)	13,605	49.4
Public status of target		
government	658	2.4
joint venture	977	3.5
subsidiary	11,053	40.1
public	7,343	26.7
private	7,489	27.2
unknown/other	21	0.1
Public status of acquirer		
government	298	1.1
joint venture	499	1.8
subsidiary	6,814	24.7
public	15,796	57.4
private	4,067	14.8
unknown/other	67	0.2
Number of deals involving cash	25,665	93.2
if so, average share of payment		94.4
Number of deals involving stock	2,635	9.6
if so, average share of payment		73.1

acquired. Payment for the acquisition usually involves cash (93.2% of the deals); and, if so, it is usually completely paid for in cash (on average, 94.4% of the deals involving cash are paid for in cash). Payment of the deal using shares occurs regularly (9.6% of the deals); and, if so, it is usually completely paid for in shares (on average, 73.1% of the deals involving stocks are paid for in stocks). The fact that many takeovers are financed with cash does not imply that shares are not important in those deals: Raising cash is greatly facilitated if stock prices of the firms involved are high. This might be the motive behind announcing takeovers before the actual takeover takes place; announcements tend to affect share prices in an upward direction (see also Box 2.1).²

There are substantial differences between the public status of acquiring and target firms. The majority of acquiring firms are public companies (57.4%), followed by subsidiaries (24.7%), and private firms (14.8%), respectively. The target company, on the other hand, is usually a subsidiary (40.1%), followed by

² As to the (negative) relationship between profits and share prices with respect to M&As, see Fridolfsson and Stennek (2005).

Box 2.1 Cross-border M&A Profitability

For this chapter it is instructive to present a simple way of looking at a cross-border M&A. It is more a way of organizing thoughts than a complete model, but it illustrates the key issues involved. Let 1 and 0 indicate the post- and pre-merger situation, respectively. Then the gain of taking over a home firm, G_H , by a foreign firm is given by the following expression:

$$G_H = \left[\pi_1^*(n-1, n^*|.) - \pi_0^*(n, n^*|.) \right] - \pi_0(n, n^*|.) > 0 \quad (2.1)$$

The first term (in square brackets) relates to the gain in profitability from reduced competition by taking over the domestic firm; the number of domestic firms is reduced by 1, from n to $(n-1)$. The number of foreign firms, n^* , does not change. The second term indicates the cost of acquiring the domestic firm. This is a function of profits of the target—the more profitable a target is, the higher the takeover costs—and the cost of financing the takeover. If the acquirer has a windfall gain, for example, higher share prices arising from the takeover, the finance costs are smaller. The $|.$ indicates that other variables are taken as given. The balance between the change in profits and the costs involved in the M&A determines whether or not a takeover will take place. Whether the increase in profits really materializes after the M&A has taken place is another issue, but the equation illustrates how in international economics (the equation is taken from Neary, 2004a) the firm decision on whether or not to engage in a cross-border M&A is very simple. The firm (and its organizational setup) itself is something of a black box, and the focus is on how changes in the external environment (fall in transportation costs, lowering of tariffs) might have an impact on equation (2.1), and thus on the M&A decision.

a private company (27.2%) and a public company (26.7%), respectively. The share of subsidiaries and private companies among the target companies is therefore substantially larger and the share of public companies is substantially lower.

To classify M&As between horizontal and other types of deals (be they vertical or conglomerate), we used the SIC classification of target and acquirer as provided by Thomson at the 2-digit level; a deal is therefore a horizontal M&A in our classification if the acquirer and target are active in the same 2-digit sector. On average, about half of the M&As are horizontal deals (49.4%, see the following for further details). Thus, to a large extent, investments take place in the same sector. One can speculate why this might be the case. Strategic motives may, of course, be at work here; but as we will argue, the most likely explanation is probably that most cross-border M&As belong to the category of market-seeking FDI. Taking a competitor out of the market reduces competition and increases

profits. Buying a firm outside one's own sector might be motivated by an efficiency motive: It can be profitable to control a larger part of the value chain. Both motives increase profits after the takeover. We also argue that, since most cross-border M&As belong to the category of horizontal FDI, market-seeking motives play a dominant role in M&As.

Figure 2.2 illustrates that the share of horizontal M&As is very stable over time when measured using the number of deals, fluctuating relatively little around the average of 49%, which ranges from a low of 45.1% in 1986 to a high of 51.5% in 1996. Horizontal M&As are substantially more volatile when measured using the value of the deals, fluctuating around the average of 56%, ranging from a low of 46.7% in 1988 to a high of 73.0% in 1999. Using either measure, we find little support for the argument that the share of horizontal M&As is declining. Those who would argue that the value of horizontal M&As has declined since 1999 are obviously obscuring the fact that this peak in 1999 is not representative over a long-time horizon. The current (2005) value of horizontal M&As of 55.2% is very close to the long-run average of 56%. From an international economics perspective, see our introduction; the question is if existing theories of FDI can explain the dominance of horizontal FDI. At first sight, this is not the case. Assuming that during our sample period 1985–2005 trade costs, broadly defined, have (if anything) decreased, the standard FDI model then predicts that horizontal FDI should become less important. With falling trade costs, foreign markets might *ceteris paribus* be better served by exporting

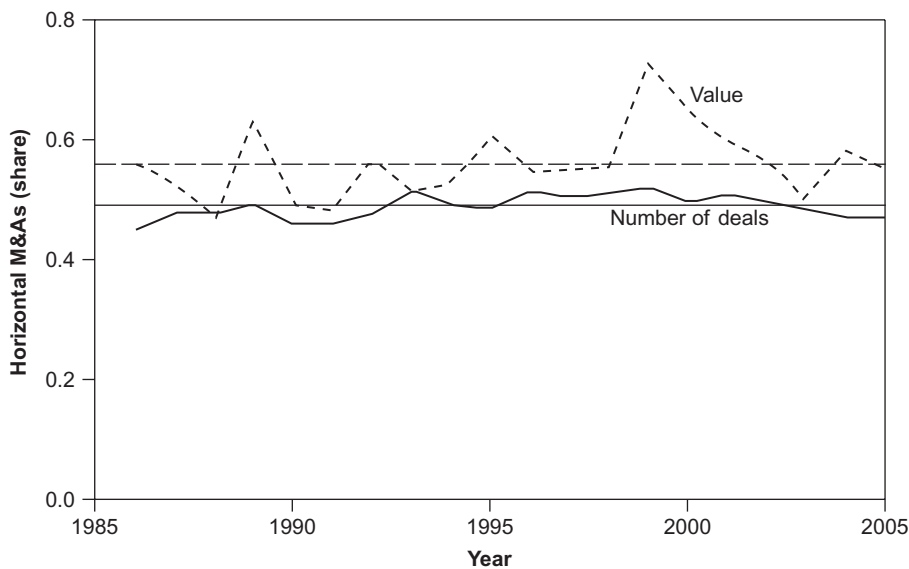


Figure 2.2 Horizontal (2-digit) cross-border M&As; share of total, number of deals and value. (Horizontal lines indicate averages for the period 1986–2005.)

instead of FDI; and in the well-known proximity-concentration tradeoff, a drop in trade costs shifts the tradeoff in favor of exporting. However, Neary (2005) shows that falling trade costs might still explain the rise of horizontal FDI and thus of the bulk of cross-border M&As, once we allow for an FDI model that explicitly incorporates the possibility of cross-border M&As instead of merely looking at FDI as a black box (see Neary, 2004a).

A historical perspective reveals a remarkable characteristic of M&As. Figure 2.2 depicts the evolution of all cross-border M&As over time, both measured as the number of deals and the value of deals (in constant 2005 \$ bn, using the U.S. GDP deflator). Clearly, there is substantial variation over time, with periods of rapid increase followed by periods of rapid decline. Five merger waves have been identified during the 20th century, three of which are recent (Andrade, Mitchell, and Stafford, 2001). The 3rd wave took place in the late 1960s to the early 1970s. The 4th wave ran from about the mid-1980s until 1990. The 5th wave started around 1995 and ended in 2000 with the collapse of the “new economy.” Figure 2.3 shows that a subsequent 6th (still ongoing) merger wave started in the 21st century around 2003. Note that the data used in this chapter cover the last two waves.

Merger waves are positively correlated with increases in share prices and p/e ratios, as well as with the general overall business cycle. However, the causality of the relation is not always clear. On the one hand, an upswing of the business cycle increases share prices, and high share prices reduce the cost of financing an M&A. On the other hand, the same upswing of the business cycle increases the profits of the target and increases takeover costs (see also Box 2.1). When one sticks to standard M&A motives, such as the efficiency argument, it is rather

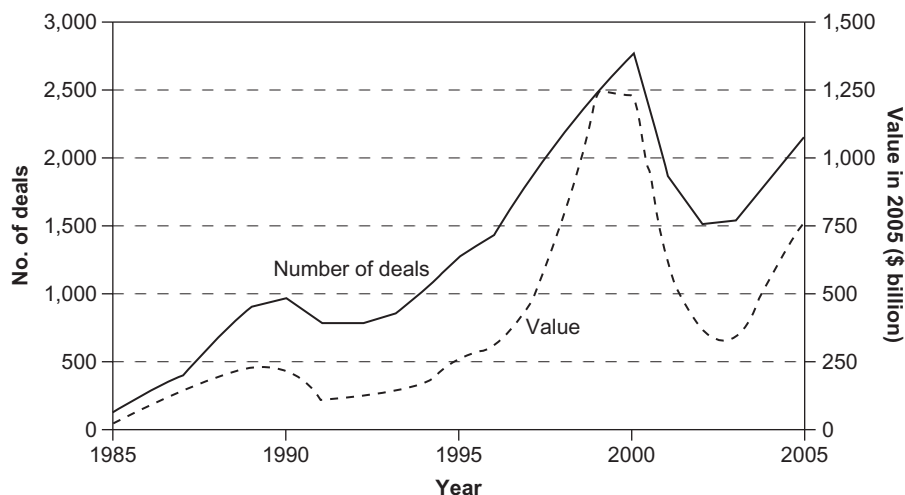


Figure 2.3 Cross-border M&As, 1985–2005; number of deals and value.

difficult to explain the synchronicity of M&As. Gugler, Mueller, Yurtoglu, and Zulehner (2004) argue that merger waves can be understood if one acknowledges that M&As do not boost efficiency and hence do not increase shareholders' wealth. Instead, they find that M&A waves are best looked upon as the result of overvalued shares and managerial discretion. For the case of the United States and restricting their sample to publicly traded firms, Andrade, Mitchell, and Stafford (2001) show that with each merger wave, the value of the M&A deals (measured by firms' market capitalization) increases strongly. Merger waves in Europe seem to follow those in the United States with a short lag. During the 5th merger wave, European firms engaged in a number of mega-M&As, with the cross-border takeover of Mannesmann (Germany) by Vodafone (U.K.) for \$203 bn in 1999/2000 the largest M&A to date. It turns out that this part of M&A waves is especially difficult to model. First, an M&A wave must start at some point. Equation (2.1) points to a difficulty in this respect. A reduction of competition makes an M&A profitable; this implies that it is rational to wait for other M&As to go first because waiting reduces competition, making the next M&A more profitable than the first. Second, an M&A wave must stop at some point. Both elements should be incorporated in a full M&A model. Neary (2004a) does just that: Waves have to start at some point or else M&A profits are forgone. Moreover, since it is a general equilibrium model, the excess supply on the labor market following an M&A (lower wages resulting in higher profits) finally stops the wave.

2.3 Countries and M&As in 2005

In this section we provide an overview of the currently (2005) most active countries in M&As. There were 2,154 cross-border M&As in 2005, with a total value of about \$774 bn. Table 2.2 provides an overview of the top 20 countries ranked in order of acquirer value. Unsurprisingly, the United States tops the list, both in value and number of deals, acquiring 514 foreign firms with a total value of about \$158 bn (20.4% of the total). The United States was also the largest target country in 2005 when measured in number of deals (356) and the second largest target in value terms (\$125 bn). The United Kingdom was the second largest acquiring country (286 deals and \$94 bn) and the largest target country in value (\$144 bn; second largest in number of deals). Among the other countries listed in Table 2.2 are the "usual suspects" of high-income (European) countries: Spain, France, Germany, Italy, Switzerland, The Netherlands, Sweden, Denmark, Norway, Israel, Australia, Canada, Japan, Russia, and Hong Kong. More remarkable, presumably, are the high ranks for Egypt, United Arab Emirates (UAE), and even tiny Luxembourg.

As suggested by the fact that the United States and the United Kingdom take the two top spots in Table 2.2, both as acquirer and target, there is substantial coincidence between acquirers and targets (large acquiring countries are usually also large target countries, and vice versa). Indeed, of the 20 countries listed as

Table 2.2 Cross-border M&As; top 20 countries in 2005
(ranked according to acquirer value)

Country	In value terms (\$ million)			In number of deals	
	Acquirer	% of total	Target	Acquirer	Target
1 United States	157,924	20.4	124,764	514	356
2 United Kingdom	94,104	12.2	143,754	286	262
3 Spain	59,953	7.7	22,531	49	58
4 France	58,606	7.6	36,733	86	110
5 Germany	48,081	6.2	65,053	79	136
6 Italy	37,897	4.9	48,593	48	58
7 Australia	31,722	4.1	10,048	137	106
8 Switzerland	30,973	4.0	6,710	35	22
9 Netherlands	28,664	3.7	32,416	64	38
10 Sweden	19,555	2.5	17,799	63	44
11 Egypt	16,992	2.2	2,227	6	9
12 Canada	15,679	2.0	26,943	121	87
13 Luxembourg	14,584	1.9	7,808	21	7
14 United Arab Emirates	14,565	1.9	86	11	1
15 Japan	12,034	1.6	3,538	70	26
16 Russia	11,088	1.4	7,818	22	28
17 Denmark	9,341	1.2	20,933	27	33
18 Hong Kong	9,213	1.2	10,107	60	63
19 Israel	8,847	1.1	2,001	17	18
20 Norway	8,799	1.1	7,329	20	33

the largest acquirers in value terms in Table 2.2, 15 also appear among the top 20 as largest targets in value terms. Only Switzerland, Egypt, UAE, Japan, and Israel would have to be replaced by Belgium, China, Turkey, Czech Republic, and South Korea. This coincidence is illustrated in Figure 2.4 using logarithmic scales. The figure also indicates that the Czech Republic is indeed a relatively large target and the UAE is a relatively large acquirer.

What can we conclude from the fact that M&As mostly take place between high-income countries? As stated before, an important classification in the literature is the difference between so-called horizontal and vertical FDI. The difference is important because in the case of horizontal FDI, firms are market-seeking (looking for large and profitable markets), whereas in the case of vertical FDI, firms have a factor-market motive. In the former case, firms are interested in the high wages of consumers instead of the low cost in factor markets (for example, low wages) in the latter case. Thus, both forms need very different models. As horizontal FDI seems to dominate the data, models that stress market-seeking reasons to engage in M&As are potentially the most appropriate for empirical research. Having acknowledged this (see also the previous section), we can see that these models have trouble explaining FDI in the face of

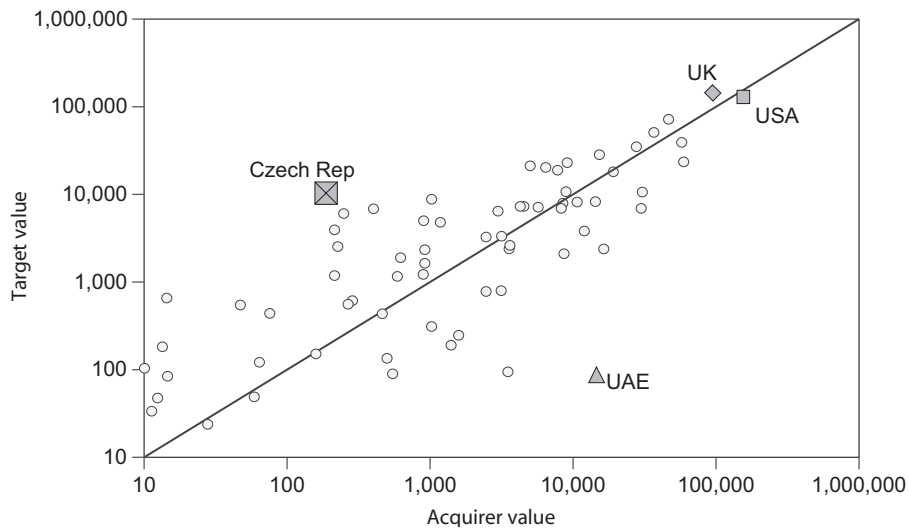


Figure 2.4 Cross-border; 2005, values (\$ million, log scales). (The thin line is the 45° line.)

increased economic integration (falling trade costs); see also Evenett (2004, p. 427). It is here that the models in international economics might gain (Neary, 2005) from distinguishing more clearly between various forms of FDI, notably by including cross-border M&As as a separate category of FDI.

2.4 Regional distribution of cross-border M&As

In Section 2.3 we showed that the majority of cross-border M&As are between relatively rich countries. However, in the public debate on off-shoring—which includes all forms of FDI and thus also cross-border M&As as well as outsourcing—there is a strong undercurrent that looks at off-shoring, and hence at FDI and its main component cross-border M&As, as threatening. Workers in the industrialized countries would lose out because of the relocation of their jobs to other, notably low-wage countries. This fear is far from new, as illustrated by the former U.S. presidential hopeful Ross Perot’s “giant sucking sound” comments (in)famously made in 1992 on the alleged migration of jobs from the United States to Mexico. To assess these developments over time it is useful to define more or less coherent groups of countries, which we label “global regions.” We identify nine global regions: six developing regions and three high-income regions. The six developing regions are based on the World Bank’s grouping in global regions (see the appendix for details):

EAP: East Asia and Pacific (includes China and Indonesia)

ECA: EastEurope and Central Asia (includes Turkey and Russia)

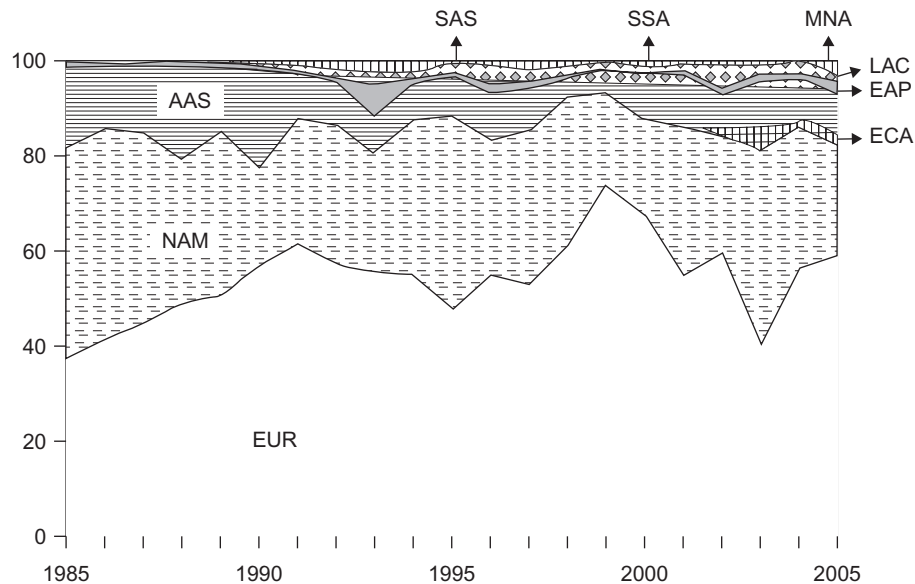


Figure 2.5 Regional distribution of M&A acquirers; value, percentage of total. (EAP = East Asia and Pacific; ECA = East Europe and Central Asia; LAC = Latin America and Caribbean; MNA = Middle East and North Africa; SAS = South Asia; SSA = Sub-Saharan Africa; AAS = AustralAsia; EUR = Western Europe; NAM = North America.)

LAC: Latin America and Caribbean (includes Brazil and Mexico)

MNA: Middle East and North Africa (includes Egypt)

SAS: South Asia (includes India)

SSA: Sub-Saharan Africa (includes Nigeria and South Africa)

The World Bank's group of high-income countries is subdivided into three global regions, following van Marrewijk (2002, Ch. 1; see also Table 2.A1 in the appendix):

AAS: AustralAsia (includes Australia, Japan, and South Korea)

EUR: Western Europe (includes France, United Kingdom, and Germany)

NAM: North America (includes Canada and the United States)

Figures 2.5 and 2.6 depict the evolution over time of the global regions in terms of acquirer and target in cross-border M&As as a percentage of the total value of M&As in the respective year.

Western Europe (EUR) is by far the largest acquirer (on average about 55% of the total), followed by North America (30%) and AustralAsia (10%). Over time, the share of Western Europe as an acquirer has increased and of North America has decreased. At the world scale, the importance of East Asia and Pacific (EAP) and Latin America (LAC) as acquirers is limited (between 1 and 2%), and of the other global regions is minimal (less than 1%). Western Europe

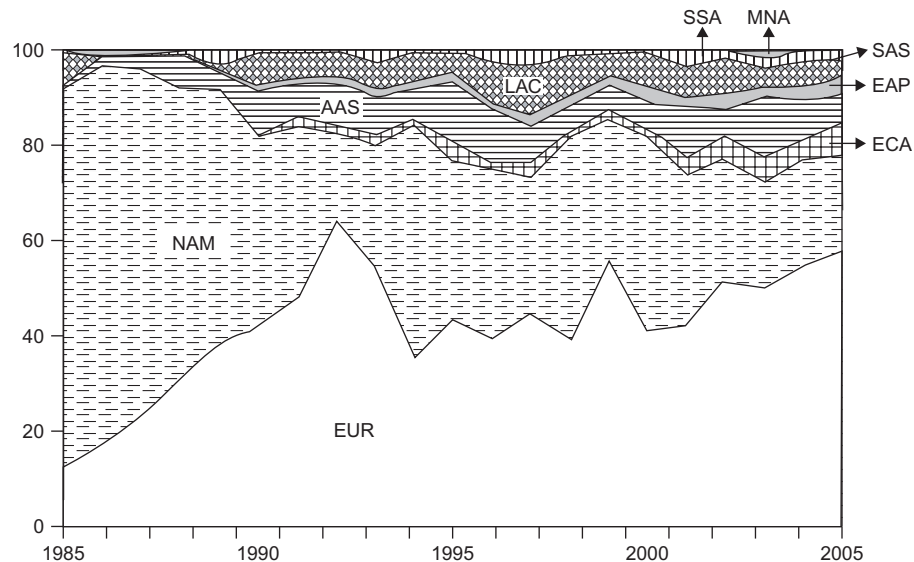


Figure 2.6 Regional distribution of M&A targets; value, percentage of total. (For abbreviations, see Figure 2.5.)

and North America are about equally important as the world's largest target regions for M&As, on average about 44 and 38% of the world total, respectively. Western Europe has clearly become a more important target region over time, whereas North America's position has clearly declined. AustralAsia is again third (about 7%), closely followed by Latin America (5%). The importance of Eastern Europe as a target region has clearly increased, as has, to a lesser extent, the importance of East Asia and Pacific and Latin America. The importance of South Asia (SAS), the Middle East and North Africa (MNA), and Sub-Saharan Africa (SSA) as a target region is minimal (less than 1%).

In light of the fear of globalization debate alluded to at the beginning of this section, the increased importance of Eastern Europe and also of East Asia and the Pacific and Latin America as target regions provides some evidence that cross-border M&As are increasingly used as vehicles to invest from high-income countries to low-income countries. The changes are, however, (still) modest; it remains true that, even in our regional classification, the vast majority of FDI takes place between and within the three high-income regions. Table 2.3 provides more detail in this respect by giving the regional distribution of cross-border M&As in percentages of the total for acquirer and target region for each of the four 5-year sub-periods. It shows, for example, that EUR acquired 48.8% of the cross-border M&As in the period 1986–1990, of which 26.4 percentage points were destined for NAM and 19.8 percentage points for EUR itself. Since then, EUR's share as an acquirer has exceeded 50%, while its share as a target has been close to 50%. Also note the relative importance of the intra-regional M&As.

Table 2.3 Regional distribution of cross-border M&As; 5-year averages (% of total)

Acquirer	Target									
	AAS	EAP	ECA	EUR	LAC	MNA	NAM	SAS	SSA	
<i>Average value 2001–2005</i>										
AAS	3.7	1.0	0.1	2.5	0.1	0.0	2.0	0.0	0.0	9.6
EAP	0.4	0.5	0.0	0.2	0.1	0.1	0.0	0.0	0.0	1.4
ECA	0.0	0.0	1.4	0.2	0.0	0.0	0.1	0.0	0.0	1.7
EUR	2.1	0.5	2.9	34.6	2.0	0.4	10.2	0.3	1.1	54.2
LAC	0.0	0.0	0.0	0.0	1.4	0.0	0.8	0.0	0.0	2.2
MNA	0.0	0.0	0.0	0.4	0.0	0.1	0.0	0.0	0.0	0.5
NAM	2.3	0.7	0.5	13.3	1.4	0.1	11.2	0.2	0.1	29.8
SAS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.3
SSA	0.1	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.2	0.5
	8.8	2.7	4.9	51.4	5.1	0.7	24.3	0.6	1.5	100
<i>Average value 1996–2000</i>										
AAS	2.6	1.6	0.1	1.1	0.1	0.0	1.8	0.1	0.0	7.5
EAP	0.4	0.2	0.1	0.1	0.0	0.0	0.1	0.0	0.0	0.9
ECA	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.2
EUR	1.8	0.4	1.2	33.0	3.5	0.1	21.9	0.1	0.2	62.2
LAC	0.0	0.0	0.0	0.0	1.6	0.0	0.2	0.0	0.0	1.9
MNA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NAM	2.2	0.3	0.2	9.8	2.3	0.0	11.0	0.2	0.2	26.1
SAS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.2
SSA	0.1	0.0	0.0	0.5	0.0	0.0	0.1	0.0	0.4	1.0
	7.1	2.5	1.7	44.5	7.6	0.2	35.1	0.5	0.8	100
<i>Average value 1991–1995</i>										
AAS	3.0	0.7	0.2	1.3	0.2	0.0	3.1	0.0	0.0	8.5
EAP	0.5	0.2	0.0	1.2	0.0	0.0	0.1	0.0	0.0	2.0
ECA	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.2
EUR	2.6	0.3	1.4	34.0	1.4	0.1	15.4	0.0	0.4	55.6
LAC	0.0	0.0	0.0	0.1	0.9	0.0	0.7	0.0	0.0	1.8
MNA	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1
NAM	2.3	0.3	0.4	12.3	2.4	0.0	12.7	0.0	0.1	30.5
SAS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
SSA	0.2	0.0	0.0	0.5	0.2	0.0	0.3	0.0	0.2	1.4
	8.7	1.5	2.1	49.3	5.1	0.1	32.3	0.1	0.7	100
<i>Average value 1986–1990</i>										
AAS	2.5	0.4	0.0	4.0	0.0	0.0	9.2	0.0	0.1	16.2
EAP	0.0	0.1	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.5
ECA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EUR	1.0	0.0	0.1	19.8	1.2	0.0	26.4	0.0	0.3	48.8
LAC	0.0	0.0	0.0	0.0	0.1	0.0	0.3	0.0	0.0	0.4
MNA	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1
NAM	1.3	0.0	0.0	6.6	0.4	0.0	24.9	0.0	0.4	33.7
SAS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSA	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.2
	4.9	0.5	0.1	30.6	1.8	0.1	61.1	0.0	0.9	100

Table 2.4 Change in regional distribution of cross-border M&As; 2001–2005 5-year average minus 1986–1990 5-year average, rounded to nearest integer

Acquirer	Target								
	AAS	EAP	ECA	EUR	LAC	MNA	NAM	SAS	SSA
<i>Average value 2001–2005</i>									
AAS	1	1		–1			–7		–7
EAP									1
ECA			1						2
EUR	1	1	3	15	1		–16		5
LAC					1				2
MNA									
NAM	1	1		7	1		–14		–4
SAS									
SSA									
	4	2	5	21	3	1	–37	1	1

For abbreviations, see Figure 2.5.

Most noteworthy in Table 2.3 is, of course, the large share of European firms' buying other European firms, which has been close to one-third of the world total since 1990. It seems easy to argue that the intra-European M&A activity has been stimulated by the process of EU integration, the completion of the single market. But if this is the case, the modern FDI models that serve as benchmarks for our chapter lose some explicatory power because they predict that (horizontal) FDI would become less important. One explanation (Barba Navaretti and Venables, 2004, chapter 3) might be that (independently from the level of trade costs) the fixed cost of taking over another European firm has fallen because of the streamlining of national legislation. Table 2.3 also shows that the share of intra-regional M&As has been high for AustralAsia and North America (see the following) and that South Asia and the Middle East and North Africa are virtually absent as acquiring and target regions throughout the period. [AU1]

Table 2.4 highlights the changes in the distribution of cross-border M&As by subtracting the percentages in the period 1986–1990 from the percentages of the period 2001–2005 and rounding to the nearest integer. AustralAsia and North America have decreased most substantially as acquirers (minus 7 and minus 4 percentage points, respectively), whereas West and East Europe and Latin America have increased their positions (plus 5, 2, and 2 percentage points, respectively). At the expense of North America (minus 37 percentage points) all the other regions have become more important targets, particularly West and East Europe, AustralAsia, and Latin America (plus 21, 5, 4, and 3 percentage points). The inside of the table shows that the most important distributional change has been European firms' buying European instead of American firms, and similarly for American firms.

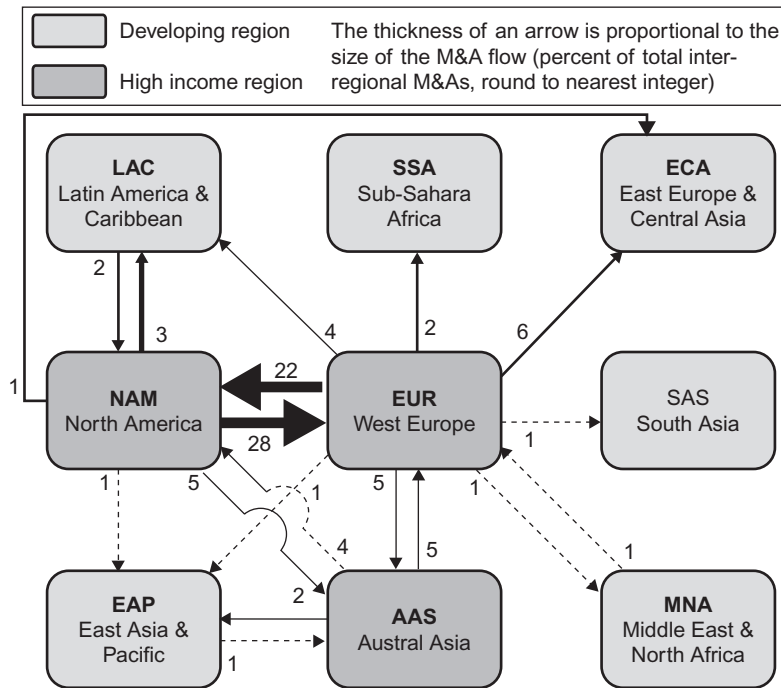
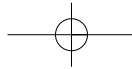
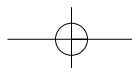


Figure 2.7 Inter-regional cross-border; percentage of total (value), 2001–2005. [NB: All *intra*-regional M&As are excluded from the figure. The total value of *inter*-regional M&As is 100%; only flows above 0.5% are shown (this excludes 53 of 72 possible arrows.)

Finally, we focus attention on inter-regional M&As, which gives us an indication of the extent to which different global regions interact with one another. These flows can obviously be (roughly) deduced from Table 2.3 or the various subperiods by disregarding the diagonal entries (which sum to ~50% of the total) and re-adjusting the remaining entries to sum to 100% inter-regional M&As. Figure 2.7 graphically depicts the inter-regional cross-border connections for the most recent 5-year period (2001–2005), rounded to the nearest integer. Since there are 9 global regions, there are 72 different inter-regional connections. Only 19 of these are actually shown in Figure 2.7 because the remaining 53 are rounded to 0%. First, we note that by far the largest inter-regional M&As are from North America to Western Europe (28% of the total), and vice versa (22% of the total). Together these two flows account for 50% of all inter-regional M&As and clearly dwarf the importance of all other inter-regional connections. Second, Western Europe is substantially buying up firms in Eastern Europe (6%). Third, the other connections between the high-income regions (between EUR and AAS and between NAM and AAS) are substantial (about 5% each). Fourth, M&As toward East Asia and the Pacific are still rather



small, certainly compared to the attention this activity receives in the popular media. Fifth, and finally, Western Europe is the only global region with connections to all other regions. This is reminiscent of the dominance of Western Europe in inter-regional trade flows; see van Marrewijk (2007, Ch. 1). So, it seems safe to conclude this section with the observation that, indeed, most FDI and M&As take place between the relatively wealthy parts of the world. This observation is in accord with our previous findings that cross-border M&As are mainly of the horizontal type.

2.5 Countries and M&As over time

In view of the high coincidence between acquiring and target countries discussed in Sections 2.3 and 2.4, it is interesting to make a distinction between the largest gross acquirers and targets and the largest net acquirers and targets of M&As. Looking at net figures corrects for (country) size differences and reveals possible changes in the direction of FDI flows. Since the value and number of cross-border M&As varies substantially, even for the world as a whole (see Figure 2.3), it should come as no surprise that this variation is even more substantial at the country level, certainly when we look at net M&A flows. This variation is illustrated in Figure 2.8 for the two largest net acquiring countries (United Kingdom and France) and net target countries (United States and

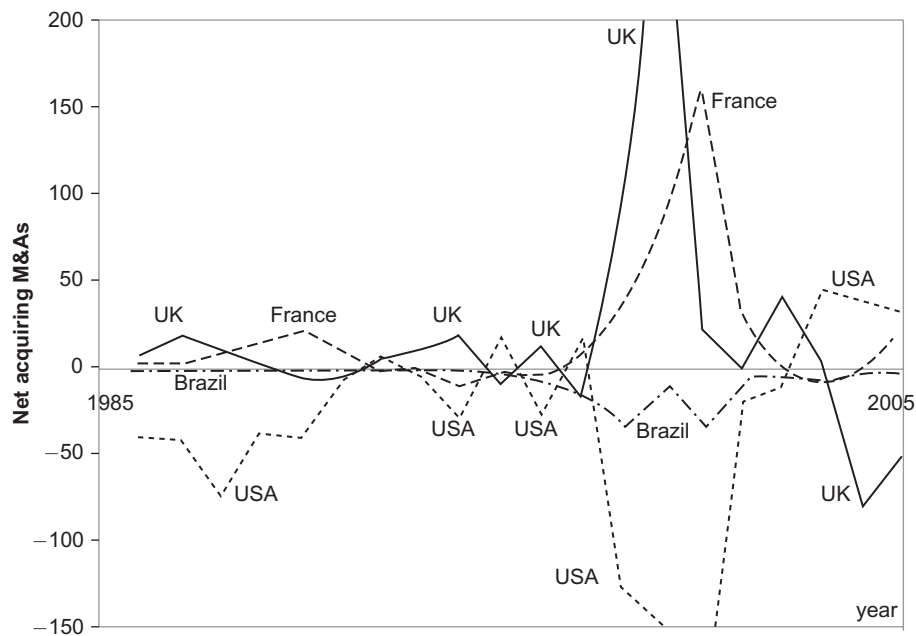
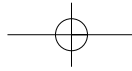


Figure 2.8 Cross-border M&As; four largest net acquirers and net targets.



Brazil) for the period 1985–2005. For the United Kingdom, for example, the fluctuations around the average of \$19.1 bn per year range from a low of –\$78 bn in 2004 to a high of \$295 bn in 1999. Similarly, for the United States, the fluctuations around the average of –\$31.3 bn per year range from a low of –\$205 bn in 2000 to a high of \$46 bn in 2003.

To mitigate the impact of fluctuations over time and to identify important trends over longer time periods, Table 2.5 lists the most important countries for each of the four categories identified above for the period 1986–2005 as a whole, subdivided into four 5-year subperiods.

Table 2.5a lists the top 10 acquiring countries, consisting of the United States, Canada, Australia, Japan, and six European countries (United Kingdom, France, Germany, The Netherlands, Switzerland, and Spain). The United States and the United Kingdom are about equally important in this respect, although the United States tops the list in three of the four subperiods. The role of The Netherlands and Spain as acquiring nations has become more important in the last 10 years and that of Australia in the last 5 years. In contrast, the role of Japan as an acquiring nation has clearly reduced over time.

Table 2.5b lists the top 10 target countries. Except for Italy and Sweden (which replace Switzerland and Japan), it consists of the same countries as those listed in Table 2.5a. The United States is undisputedly the largest target country, followed by the United Kingdom and Germany. The role of the United Kingdom as a target country has clearly increased over time. Similarly, to a lesser extent, has the role of other European countries, particularly in the last 5 years.

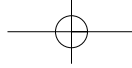
Table 2.5c lists the top five net acquiring countries, consisting of five European countries: France, United Kingdom, Switzerland, The Netherlands, and Spain. Of these five, Switzerland and The Netherlands have been stable net acquiring countries throughout the time period, whereas the net position of France has been more volatile. The United Kingdom's net position recently switched from acquirer to target, and vice versa for Spain.

Finally—and most interestingly from the globalization-debate perspective—Table 2.5d lists the top five net target countries, consisting of the United States, Brazil, Germany, China, and Argentina. Of these five, Brazil and Argentina have been stable net target countries throughout the period, whereas China, like Germany, became an important net target in the last 10 years only. The United States has been a primary net target most of the time, switching roles with the United Kingdom only in the last 5 years. The analysis reveals that, despite the dominant position of the United States, recently high-income countries are turning toward emerging markets, of which China stands out as the most recent net target. Folk wisdom about the increasing importance of China—and other promising markets—thus seems correct in this respect. This trend also implies a challenge for FDI modeling. Typically (see Barba Navaretti and Venables, [AU1] 2004), when the possibility of M&A as an FDI option is taken into account, it occurs in models of horizontal FDI, which (given the facts we have presented so far) should not come as a surprise. But the information provided by Table 2.5d suggests that (increasingly?) cross-border M&As are also aimed at low(er)-income

Table 2.5 Largest M&A countries; acquiring and targets, gross and net flows

Country	Annual average acquiring flows				
	1986–1990	1991–1995	1996–2000	2001–2005	1986–2005
<i>a. Ten largest acquiring M&A countries, 1986–2005 (constant 2005 \$ billion)</i>					
1 United States	41.1	42.3	142.3	118.0	85.9
2 United Kingdom	37.2	27.0	200.3	76.7	85.3
3 France	17.0	13.2	85.6	34.9	37.7
4 Germany	6.4	10.7	68.7	31.5	29.3
5 Netherlands	4.3	8.1	39.8	32.8	21.2
6 Canada	13.3	7.5	29.9	24.1	18.7
7 Switzerland	6.1	8.0	28.8	15.8	14.7
8 Spain	2.0	2.9	27.1	24.5	14.1
9 Australia	8.2	3.7	14.1	21.4	11.9
10 Japan	16.0	3.7	13.7	8.9	10.6
<i>b. Ten largest target M&A countries, 1986–2005 (constant 2005 \$ billion)</i>					
1 United States	86.5	44.6	238.4	99.6	117.3
2 United Kingdom	29.6	22.7	119.7	92.7	66.2
3 Germany	4.1	7.9	83.3	40.3	33.9
4 Canada	11.3	6.9	37.6	22.2	19.5
5 France	5.8	12.9	28.9	26.1	18.4
6 Netherlands	3.0	5.7	29.4	20.6	14.7
7 Australia	4.1	8.4	18.0	13.5	11.0
8 Italy	3.8	5.8	10.4	21.8	10.5
9 Sweden	1.7	4.9	23.7	10.3	10.2
10 Spain	3.1	5.0	11.1	11.8	7.8
<i>c. Five largest net acquiring M&A countries, 1986–2005 (constant 2005 \$ billion)</i>					
1 France	11.3	0.3	56.8	8.8	19.3
2 United Kingdom	7.6	4.3	80.6	–16.0	19.1
3 Switzerland	3.5	5.5	20.3	8.0	9.3
4 Netherlands	1.3	2.4	10.3	12.3	6.6
5 Spain	–1.1	–2.1	16.0	12.7	6.4
<i>d. Five largest net target M&A countries, 1986–2005 (constant 2005 \$ billion)</i>					
1 United States	45.4	2.3	96.1	–18.4	31.3
2 Brazil	0.2	0.6	18.6	2.8	5.6
3 Germany	–2.4	–2.7	14.5	8.8	4.6
4 China	0.0	0.2	11.4	5.3	4.2
5 Argentina	1.8	1.3	11.0	1.8	4.0

countries where the market-seeking aspect is probably far less relevant than the (labor) cost-saving argument. This means that cross-border M&A should be part of models of vertical FDI as well. It might be that cross-border M&As become an increasingly viable alternative for Greenfield FDI or outright outsourcing in view of the well-known asymmetric information problems (the holdup problem) associated with the FDI-versus-outsourcing decision.

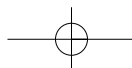


2.6 Inequality between cross-border M&As

One of the reasons the M&A phenomenon attracts attention inside—and certainly outside—academia is undoubtedly the involvement of national pride in M&A deals (either positively or negatively). Another, perhaps even more important, reason for this attention is the size of some of the cross-border M&A. Indeed, some of the deals are so large that they can have a substantial influence on a country's position as a (net) acquirer or target. Table 2.6 lists the largest deals by year of announcement, valued in current and constant dollars, as well as the two countries involved in each deal. Several conclusions can be drawn from this table. First, there is substantial variation in the maximum value over time (a 50-fold difference between the highest and lowest value). Second, a single deal can indeed have a substantial influence. The Vodafone takeover of Mannesmann (see Section 2) is by far the largest M&A. It has also clearly influenced the net acquiring position of the United Kingdom and the net target position of Germany. Third, the United States is by far the most popular target country for these mega-deals (12 out of 20 observations), while Europe is the

Table 2.6 Value of largest cross-border M&As (announced year)

Year	Value of deal (bn)		Firm and country information			
	Current \$	Constant 2005 \$	Acquiring		Target	
			Firm	Country	Firm	Country
1986	3.6	5.6	Campeau	Canada	Allied Stores	U.S.A.
1987	7.9	12.0	BP America	U.S.A.	Standard Oil	U.S.A.
1988	6.5	9.7	Campeau	Canada	Fed Dep St.	U.S.A.
1989	7.9	11.4	Beecham	U.K.	Smith Kline	U.S.A.
1990	7.4	10.3	Matsuhita E	Japan	MCA	U.S.A.
1991	3.3	4.3	Altus Fin.	France	Ex. Life	U.S.A.
1992	4.6	6.0	Reed	U.K.	Elsevier	Netherl.
1993	6.3	8.0	Metro etc.	Malaysia	ASKO etc.	Germany
1994	5.3	6.5	Roche	Switzerl.	Syntex	U.S.A.
1995	7.3	8.8	Hoechst	Germany	Marion etc.	U.S.A.
1996	4.2	5.0	Fresenius	Germany	Nat Med ca	U.S.A.
1997	17.1	19.8	Zürich Vers	Switzerl.	BAT Ind	U.K.
1998	48.2	54.9	BP	UK	Amoco	U.S.A.
1999	202.8	228.7	Vodafone	U.K.	Mannesmann	Germany
2000	46.0	51.1	France Tel	France	Orange	U.K.
2001	12.8	14.0	Citigroup	U.S.A.	Banacci	Mexico
2002	15.3	16.2	HSBC	UK	Household I	U.S.A.
2003	11.1	11.6	Manulife	Canada	J Hancock	U.S.A.
2004	74.6	76.5	R D Petrol	Netherl.	Shell Transp	U.K.
2005	31.7	31.7	Telefonica	Spain	O2	U.K.



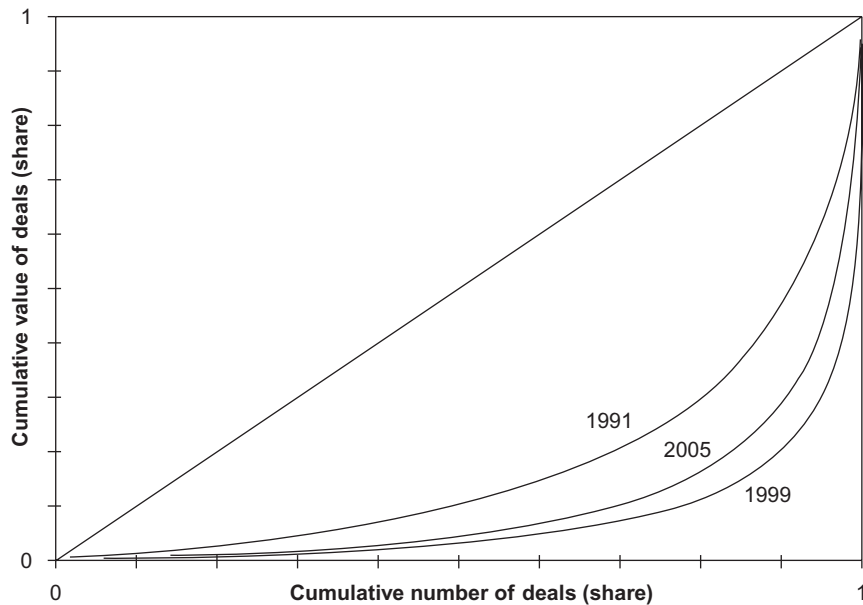


Figure 2.9 Lorenz curves of cross-border M&As; selected years.

most popular acquiring region (13 out of 20 observations). Fourth, and finally, even when measured in constant dollars, there seems to be a tendency for the maximum value to increase over time.³ This has led to the suggestion in the literature that the size distribution of M&As has become more unequal over time (Evenett, 2004). This section analyzes that suggestion in more detail.

A proper understanding of the degree of inequality of a distribution must, of course, take all observations into consideration, rather than focusing just on the maximum value. An excellent, and popular, method is to construct Lorenz curves, where the observations are ordered in increasing value, with the share of the cumulative number of deals on the horizontal axis and the share of the cumulative value of these deals on the vertical axis. Figure 2.9 provides examples of these curves in the years 1991, 1999, and 2005. If all the observations in a particular year had an equal value, the Lorenz curve would coincide with the diagonal. The area below the diagonal and above the curve (times 2) therefore provides a measure of the inequality of the observations, a number between 0 (complete equality) and 1 (complete inequality) known as the Gini coefficient. We calculated the Gini coefficient for each year of our dataset.

³ A trendline of the logarithm of the maximum value in the period 1985–2005 explains about half of the variance and suggests a rate of increase at 0.13% per year.

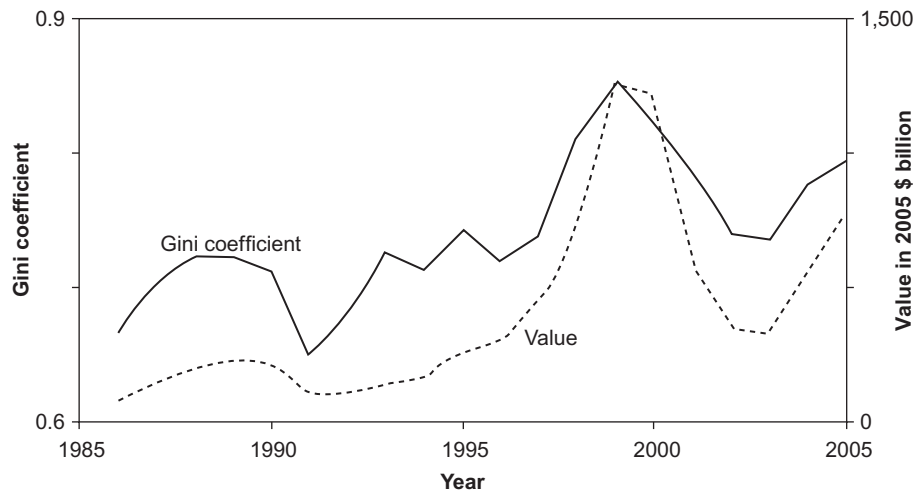
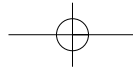


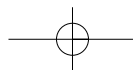
Figure 2.10 Cross-border M&As, 1985–2005; Gini coefficients and value.

Figure 2.10 provides an overview of the evolution of the Gini coefficient over time for the period 1986–2005. There is indeed a tendency of the Gini coefficient to increase over time, supporting the suggestion that the degree of inequality in cross-border M&As increases over time.⁴ The variation from year to year is substantial, however, ranging from a low of 0.649 in 1991 to a high of 0.853 in 1999; see also the associated Lorenz curves in Figure 2.9. More importantly, by including the evolution over time of the total value of cross-border M&As in the same diagram, Figure 2.10 draws attention to the relationship between inequality as measured by the Gini coefficient and the wave phenomenon. Clearly, the Gini coefficient increases during the 4th wave of the late 1980s, then declines after this peak has been reached, to increase again during the 5th wave of the late 1990s, to decline again after the absolute peak in 1999, and starts to increase again during the 6th wave starting in 2003.

Figure 2.11 illustrates the coincidence of changes in inequality, measured by the relative change in the Gini coefficient, and merger waves, measured by the relative change in the value of cross-border M&As. There is a clear positive relationship between these two phenomena. If we let GI_t be the Gini coefficient in year t , V_t be the value of cross-border M&As (in constant 2005 \$ bn), and \sim denote a relative change, that is $\tilde{x}_t \equiv (x_t - x_{t-1})/x_{t-1}$ for $x_t = GI_t, V_t$, then we get (t -values in parentheses)

$$\tilde{GI}_t \approx \underset{(-1.76)}{-1.1207} + \underset{(7.38)}{0.1085} \cdot \tilde{V}_t \quad \bar{R}^2 = 0.75 \quad (2.2)$$

⁴ A trendline of the Gini coefficient explains almost half of the variance and suggests an increase in the Gini value at a rate of about 0.0061 per year.



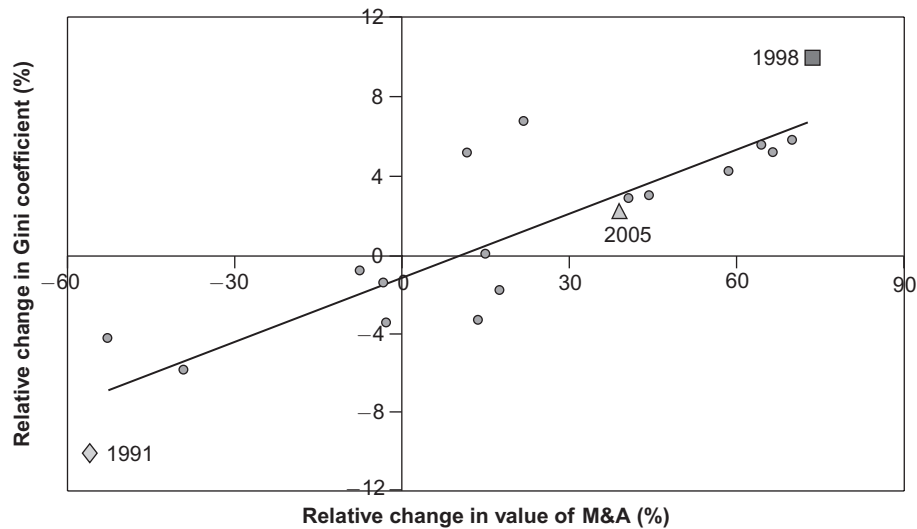
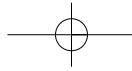
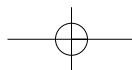
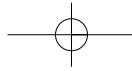


Figure 2.11 Relative changes in value of M&As; Gini coefficient, 1986–2005.

A 1% increase in the value of cross-border M&As therefore causes about a 0.1% increase in the Gini coefficient. The gradual increase in the real value of cross-border M&As over time is therefore probably largely responsible for the observed increase in inequality.⁵ This begs the question of what causes the increase in the value of the M&As during the 1990s. The most important reason is that regulations with respect to M&A have changed over time. Especially the financial service sector, banking sector, (tele)communication sector, and media firms have been allowed to merge with or acquire overseas firms (Evenett, 2004; Muelfeld, Sahib, and van Witteloostuijn, 2007). Once the regulations became more relaxed, the local giants were looking for profitable M&As. Does this make sense from the perspective of the modern FDI theories that play such a dominant role in the current research in international economics? To start with, the idea of merger waves can be explained, as equation (2.1) already suggests, that once the initial mergers have taken place and competition is reduced, it becomes profitable for other firms also to engage in the M&A activity; however, the problem of explaining the initial mergers remains. The association of the merger wave (with a strong European flavor) with changes in regulation can be aligned with theoretical models of (horizontal) FDI as long as we look upon it as a decrease in the organizational costs of setting up and arranging an M&A. If these costs are seen as a fall in trade costs—and hence as a manifestation of increased economic integration—these models are, as we have argued before, ill equipped to explain the

⁵ It should be noted, moreover, that changes in the maximum M&A value are only weakly (positively) correlated with changes in the Gini coefficient.





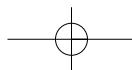
data in Figure 2.10. Maybe the limits of existing FDI models which more or less [AU2] all build on equation (2.1) come to the fore here; thus, to understand what is driving merger waves, we might look at alternative theories like the managerial hubris theory (Roll, 1986). Managers tend to err positively when it comes to the valuation of targets and hence tend to overpay. Especially during the heyday of the dotcom bubble in the late 1990s, this phenomenon could explain the increase in value of the M&As. Although managerial hubris is not part of our categorization scheme from Box 2.1, it correlates with the fact that M&A are facilitated in the upswings of business cycles.

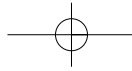
2.7 Looking more closely at individual firms that engage in M&As

Until now we have not discussed individual firms.⁶ In this section we briefly discuss the main insight that results from the research on FDI and firm heterogeneity: namely, that within a sector there is considerable firm heterogeneity to the effect that only the most productive firms are expected to be engaged in FDI and thus in cross-border M&A (as an acquiring firm). The idea that firms from the same sector differ (considerably) is probably not a path-breaking observation, but for the fact that there is a systematic relationship between plant productivity and the mode of entry in international trade. Bernard, Eaton, Jensen, and Kortum (2003) showed that a systematic relationship exists between productivity and whether or not firms are engaged in exports. They show that of 200,000 (U.S.) firms in their sample, only 21% report any export. Fewer than 5% of these firms export more than 50%, which shows that even if firms are engaged in international trade, most are still most active in domestic markets—two-thirds of the exporters export less than 10% of their output. Most interestingly, those that export have higher productivity levels, and thus are able to charge a higher markup. Given the fact that international trade is more costly than domestic sales, only productive firms are able to cover trade costs. Despite these trade costs they can still be competitive in foreign markets, just because they are efficient. So, export reveals highly productive plants.

Helpman, Melitz, and Yeaple (2004) take this line of reasoning one step further not by only looking at the export decision, but also by taking the FDI decision into account. Because FDI is even more expensive than exports, only the most efficient firms are able to engage in FDI. They find strong evidence for a sample of U.S. and European firms that only the most productive firms are engaged in FDI. Studies like these confirm the notion that transportation costs are important to describe not only international trade patterns, but also FDI flows.

⁶ The Thomson data do not allow us to calculate the productivity measures as used by Bernard, Eaton, Jensen, and Kortum (2003); neither can we differentiate between domestic sales exports or FDI at the plant level. In this section we review some of the relevant literature that has original plant level data on productivity.





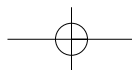
We report these results because they also explain why most FDI is between rich countries (see Sections 2.3 and 2.4). Instead of emphasizing market-seeking arguments, the firm heterogeneity argument points out that most FDI, and hence cross-border M&As, is between rich countries because that is where the most productive firms are located. Our dataset, the Thomson dataset on M&A, does not allow for an easy differentiation of firms in terms of productivity, but additional stylized facts on the productivity of firms engaged in cross-border M&As could help to establish if this new firm heterogeneity literature makes sense when applied to M&As. We leave this for future research.

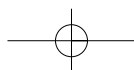
2.8 Conclusion

The well-known advice of Leamer and Levinsohn (1995) to “estimate, don’t test” implies that, given the current state of the theories and the quality of the data, the Popperian test of falsifying a theory is hardly possible: “We may statistically ‘reject’ the theory, but leave it completely unharmed nonetheless. After all, we already knew it wasn’t literally true” (ibid. p. 1314). What empirical work should be doing, according to them, is “not to test the validity of the theory but to determine if the theory is working adequately in its limited domain” (ibid. p. 1342). So, in practice the distinction between verifying or falsifying theories is less clearcut than one would ideally want. This boils down to asking theorists to think about the link between theory and observable phenomena. The aim of this chapter is to present the correlations in the data on cross-border M&As, and ask the theorists to develop useful models that give us some understanding about the underlying causation. Our chapter provides guidelines for theory on an very important phenomenon, cross-border M&As, as to what the most important correlations might be. Using the well-known Thomson dataset, we show that cross-border M&As) have a number of features:

Most FDI is in the form of cross-border M&As.
Firms engaged in cross-border M&As seem to be “market-seeking.”
Cross-border M&As come in waves (the most recent wave is still unfolding).
Economic integration (international deregulation) stimulates M&As.
The size of and inequality between M&As grows (over time).

Our contention in this chapter is that these stylized facts drive and should drive theoretical contributions from international economics that try to understand cross-border M&As. A number of recent models that are firmly rooted in the first principles of trade theory (see Neary, 2003) go a long way in explaining some of these facts. What is still missing, given our stylized facts, is a full-fledged model of M&As. It might be, of course, that tools of modern international economics do not allow for such an all encompassing theory, but ongoing research by economists like Neary, Helpman, or Melitz suggests that our understanding of cross-border M&As will improve in the near future. This is real progress because, from the perspective of mainstream international economics, cross-border M&As have too long been a case of interesting facts in search of a theory.

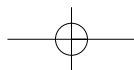




Appendix

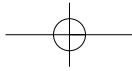
Table 2.A1 Global regions: country composition

<i>EAP: East Asia and Pacific; 27 developing countries</i>		
American Samoa	Marshall Islands	Samoa
Cambodia	Micronesia	Solomon Islands
China	Mongolia	Taiwan
Fiji	Myanmar	Thailand
Indonesia	Nauru	Timor, East
Kiribati	N. Mariana Islands	Tonga
Korea, North	Palau	Tuvalu
Laos	Papua New Guinea	Vanuatu
Malaysia	Philippines	Vietnam
<i>ECA: Europe and Central Asia; 28 developing countries</i>		
Albania	Hungary	Russia
Armenia	Kazakhstan	Serbia and Montenegro
Azerbaijan	Kyrgyz Republic	Slovak Republic
Belarus	Latvia	Tajikistan
Bosnia-Herzegovina	Lithuania	Turkey
Bulgaria	Macedonia	Turkmenistan
Croatia	Moldova	Ukraine
Czech Republic	Poland	Uzbekistan
Estonia	Romania	Yugoslavia
Georgia		
<i>LAC: Latin America and the Caribbean; 33 developing countries</i>		
Argentina	Ecuador	Nicaragua
Barbados	El Salvador	Panama
Belize	French Guiana	Paraguay
Bolivia	Grenada	Peru
Brazil	Guatemala	St Kitts and Nevis
Chile	Guyana	St Lucia
Colombia	Haiti	St Vincent & Grenadines
Costa Rica	Honduras	Suriname
Cuba	Jamaica	Trinidad And Tobago
Dominica	Martinique	Uruguay
Dominican Republic	Mexico	Venezuela
<i>MNA: Middle East and North Africa; 14 developing countries</i>		
Algeria	Jordan	Syria
Djibouti	Lebanon	Tunisia
Egypt	Libya	West Bank
Iran	Morocco	Yemen
Iraq	Oman	
<i>SAS: South Asia; 8 developing countries</i>		
Afghanistan	India	Pakistan
Bangladesh	Maldives	Sri Lanka
Bhutan	Nepal	

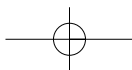
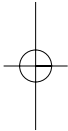
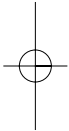


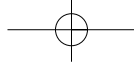
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Author Query

[AU1: Should this name be hyphenated?]

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