Foreign direct investment as an entry mode

An application in emerging economies

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To my parents,

To Jan, Muriel, Harold & Edward

Wie man wird was man ist

Nietzsche

Acknowledgments

Tilburg, February 2006

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'How you see things depends on where you sit.'
Lech Walesa

From: Timothy Garton Ash, A history of the present, 2000

Chapter I: Problem statement and research outline

I.0. GENERAL INTRODUCTION

An economic historical interest was not absent when choosing the topic of this research. Unlike Western European countries, Central and Eastern Europe and the former CIS had for a long time been sealed off from foreign investment coming from the rest of the world. The revolution of 1917 in Russia and the factual gradual influence of the Soviet Union in what became known as its satellite states in the aftermath of World War II clearly marked a turning point in this respect. The fall of the Berlin Wall and the ensuing collapse of the COMECON zone created the possibility for foreigners to start economic exchange again. Also, entry into these markets was again made possible. The heritage of respectively 72 and 45 years of planned economy in the former CIS and its satellite states, however, had shaped economic activity. It had determined the inherent goals of managers, administrations, ministries, and all economic actors alike.

Entry by a foreign firm in any area can take different forms. Speculation about the investment path in Central and Eastern Europe started and mainly depends, on the model of development that is assumed for the region. In the early transition period in the early 1990s, three models of development for Eastern Europe were proposed to predict how these countries might restructure their economy. Since any historical comparisons did not exist, these models assumed the CEE (Central and Eastern European) economies would follow a similar path as other regions at other occasions. The three possible models suggested by Buckley, Ghauri (1994) were the developing country model, the reconstruction model and the systemic model.

The developing country model sees some similarities between foreign investment as an entry mode into the economies of the leading former Soviet satellite economies and into the industrialising developing economies, such as Taiwan, Singapore, Brazil, Mexico, Korea and Thailand that had occurred almost two decades earlier. These countries each also started out with attracting virtually no foreign capital but gradually received substantial amounts of it. In each case, entry was gradual. The assumptions of the developing country model are questionable because education, medical care and housing in the mid-1980s in Eastern Europe are of a much higher level than that of the industrialising developing countries mentioned, thus limiting the similarities.

The second model is the reconstruction model that starts from the hypothesis that there are many similarities between the communist period and the effect of a war. In the 1950s-1960s, growth in Germany and Japan was stimulated by speedy and widespread foreign investment. Resources of the larger Eastern European countries were devastated, and a fund of technological, organizational and management capabilities similar to those in post-war Germany and Japan could stimulate re-exploitation of these resources. Besides, a specific call for economic help in restructuring in Eastern Europe was launched. Some economists even shortly thought about an intervention similar to the Marshall Plan after World War II by the U.S. for Western Europe. The problem with this model, however, is that privatisation[1] of assets in Eastern Europe was needed first in order to enable entrepreneurship as in Japan and Germany in the 1950s and 1960s. This type of entrepreneurship led to restructuring and growth. Institutional impediments to foreign investment in the CEECs are another major difference between the situation of Eastern Europe in the nineties and post-world-war-II Germany and Japan.

A third, more applicable, systemic model (Dunning (1994)) of expected development lies in the

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[1] A lively debate about whether privatisation needs to be preceded by restructuring or not was held theoretically and in view of its application in each country in Eastern Europe. A very comprehensive review of the impact of privatisation on performance in and outside transition economies is the analysis by Megginson, Netter (2001). Djankov, Murrell (2002) argue that these studies are germane to countries with long-established market economies.

combination of the previous models. The term 'systemic' would suggest that the willingness and the ability of foreign investors is based both on the speed and extent of restructuring in the CEECs, and on the ethos of their people towards entrepreneurship and wealth-creating activities that lead to economic progress.

It is important to see that the role played by foreign direct investment depends on the model of economic development that is chosen. The openness towards incoming foreign direct investment determines its speed. There are two extremes – the German versus the Japanese strategy. The former is more likely to be adopted by Central and Eastern European governments. Dunning (1994) assumed that the incidence of FDI would depend on the momentum and pattern of restructuring and on how this integrates into the world economy, in case of the developing country model. In the reconstruction model FDI would be much more rapid and widespread without any restructuring required. The pace of entry in this model depends much more on entrepreneurship. The systemic model is a combination of both, with both restructuring and entrepreneurship as a prerequisite for incoming FDI.

Figure 1: Models of economic development and the corresponding (determinants of the) pace of incoming FDI

model of economic development	determinant of speed of FDI	speed of FDI
developing country model	reconstruction	low
reconstruction model	entrepreneurship	high
systemic model	reconstruction and entrepreneurship	medium

Source: Dunning(1994)

I.1. PROBLEM STATEMENT

In the early nineties, high expectations were raised about investment inflows in the CEECs. Currently, the effect of these inflows on FDI towards Southern Europe is studied (Estrin et al., 2001). The aggregated flows are explained by firm level entry decisions. Compared to FDI in other parts of the world, two aspects in the case of the CEECs may have been different due to transition effects: first, the pace at which direct investment was realized and, second, the availability and implications of the usual entry mode alternatives. It is interesting to find out what was really observed and why.

The structure of the text is as follows. The present section formulates the problem and research questions. Next, section I.2. summarizes the aggregate FDI data and the trends in FDI in the emerging markets in Central and Eastern Europe in the early 1990s. It deals also with the peculiarities of transition economies as recipients of incoming investment. Section I.3. provides the research outline. Section I.4. reviews existing research on investment in Eastern Europe.

FDI is a particular form of entry. We define entry as the result of a range of decisions. It is not a single discrete choice, but the consequence of a sequence of conditional choices that gradually transform agents into actors with specific characteristics located in particular sectors at specific times (Geroski, 1991, p. 54). Decisions about 'whether to entry' give way to decisions on issues concerned with 'how', 'when', 'where', 'how much and how fast' and 'for how long', the answer of each being conditional on that of the others. We will focus on the 'how', i.e. the entry mode chosen, and, to a more limited extent 'where'.

We basically search for an answer on two fundamental research questions that are interrelated. The first question we try to answer is what determines which initial investment entry mode is chosen by foreign direct investors in Eastern Europe from 1990 onwards. Hereby, we combine two types of entry mode decisions, namely the ownership decision and the establishment mode decision. The ownership

decision is the decision between joint ventures that are partially owned or, alternatively, wholly owned subsidiaries. The 'establishment mode' or 'way of growth' decision is the decision whether to set up a completely new plant, i.e. a green-field investment[2], or to acquire an existing local firm, i.e. an acquisition[3].

A second question is whether there is empirical support for the theory of real options explaining the choice of a joint venture as an entry mode decision to stay flexible, especially in the presence of high uncertainty that was present in transition economies. Also, the entry mode decision is neither time nor location neutral.

We define, from the general to the particular item, first, when an internationalisation mode decision is an investment entry mode. Entry modes need not be investment entry modes. The major other ways by which firms can enter new (geographical) markets are through exports to other countries and through contractual modes. Both of these categories are non-equity based entry modes. Export entry modes can be indirect or through a direct agent or a direct branch or subsidiary. Contractual entry modes include licensing and franchising.

Investment entry is different from both previous categories, since it is an equity-based entry mode that involves the cross-border transfer of capital. (Foreign) direct investment differs from (foreign) portfolio investment where a stake is taken in an overseas business without the intention of operational control, but with the view to acquiring an investment income stream through dividends, capital gains or, maybe, through enhanced business links (Buckley, 1998).

Figure 2: Internationalization: entry mode types

entry mode types
export entry modes
indirect
direct agent/distributor
direct branch/subsidiary
other
contractual entry modes
licensing
franchising
other
investment entry modes
sole venture: new establishment/greenfield/start-up
sole venture: acquisition
joint venture: new establishment
joint venture: acquisition

Source: Root(1987)

Within entry mode, we distinguish between the decision on the governance or ownership structure and the decision about the way of growth. By governance structure, we refer to the degree of ownership via shares or governance ranging from partial ownership through a joint venture to full ownership in case of a wholly owned subsidiary. The way of growth can be either internal (through a start-up or green-field investment), or external through an acquisition. These choices result in four quadrants:

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[2] Green-field investment is also called internal growth.

[3] Acquisition investment is also called external growth.

Figure 3: Investment entry mode choices - ownership and way of growth – defined options

wholly owned/majority share acquisition	wholly owned/majority share green-field
joint venture/minority share acquisition	joint venture/ minority share green-field

ownership

way of growth/establishment mode

I.2. THE FUNDAMENTAL ISSUES: FOREIGN DIRECT INVESTMENT IN EASTERN EUROPE

To have an idea about the size of foreign direct investment (FDI) in CEE (Central and Eastern Europe), this section gives an overview of aggregate foreign direct investment inflows into Eastern Europe and compares it to the inflow in other developing regions. I.1.1. reports the caveats with the use of aggregate data on foreign direct investment over the years 1989-1999. Eight countries in the region are studied. Host country differences in the capability to attract foreign direct investment in the early years of transition are highlighted. Section I.2.2. discusses the particularities of transition that might have an impact on FDI.

I.2.1. Foreign direct investment in Eastern Europe: Early transition period – data, research

First, I.1.1.0. provides some caveats about the quick interpretation of FDI data. Second, I.1.1.1.gives evidence of foreign direct investment inflows.

I.2.1.0.The caveats when dealing with FDI data

The UN and the EBRD publish annual surveys of the patterns of FDI into Eastern Europe. There is a caveat about the definition of foreign direct investment (Meyer (1998), pp. 25-28 and Brewer (1994)). The extent to which data in different host countries can be compared is, as a matter of fact, unfortunately limited. This is a problem for FDI data generally. Registration requirements vary, since they are not everywhere mandatory for all firms (Lane, 1994). The type of registration differs as well by country. Some countries register foreign direct investment (FDI) after the payment of the statutory capital, whereas others register it prior to the investment being set up. Second, the minimal percentage of ownership to qualify for direct investment is different across countries. Third, real FDI is underestimated because mainly capital transfers are reported, neglecting other types of transfers. The value of in-kind contributions that must be added to the financial flow as a part of FDI is difficult and even arbitrary. Fourth, if the investment is a joint venture, the attractiveness of this form of ownership can lie in the tax advantages linked to them, which have nothing to do with real foreign direct investment motivations. Fifth, the coverage of enterprises involved in FDI is not 100 percent, since the national agencies gathering FDI data operate out of necessity also with surveys that do not cover FDI fully. Finally, registration data do not take into account later capital increases. Finally, FDI data give only a rough idea about foreign expansion, since only the amount of funding for subsidiaries that comes from abroad is registered in the balance of payment statistics, and it does not show the quite considerable amount that is locally funded.

I.2.1.1. Aggregated evidence on the FDI inflows in the CEE countries

We compare FDI inflows in CEE with FDI inflows in regions that compete for the same FDI and show the share of the pie of FDI net inflow is not equal for the different countries.

The proportion of FDI that went to 14 countries of Central and Eastern Europe is compared to selected Western European countries and to FDI inflows in countries in South, East and South-East Asia. Those were thought to be among the countries that could expect a decrease in FDI inflows due to a diversion towards CEE.

Table 1: Total FDI Inflows into the CEECs, Southern Europe, and South, East and South East Asia 1989-1996, (millions of USD)

	1989	1990	1991	1992	1993	1994	1995	1996
Bulgaria*	...	4	56	42	55	105	90	109
Croatia*	...	...	...	...	96	113	101	533
Czechoslovakia*	...	207	600	1,103	-	-	-	-
Czech Republic*	-	-	-	-	654	878	2,568	1,435
Estonia*	...	...	...	82	162	214	202	150
Hungary	...	...	1,462	1,479	2,350	1,144	4,519	1,982
Latvia	...	...	...	29	45	214	180	328
Lithuania*	...	...	...	...	30	31	92	346
Poland*	11	89	291	678	1,715	1,875	3,659	4,498
Romania*	...	...	40	77	94	341	419	263
Russia	...	...	...	...	...	637	2,017	2,479
Slovak Republic*	-	-	-	-	199	203	183	281
Slovenia	...	...	...	111	113	128	176	186
Ukraine*	...	...	...	...	...	159	267	521
Central and Eastern Europe TOTAL	...	300a	2,449	4,758	5,491	6,027	14,434	12,218
selected European countries:								
Greece	752	1,005	1,135	1,144	977	981	1,053	1,058
Portugal	1,737	2,610	2,448	1,873	1,534	1,270	685	618
Spain	8,428	13,984	12,493	13,276	8,144	9,359	6,118	6,396
Turkey (or belonging to West Asia)	663	684	810	844	636	608	885	722
selected European countries TOTAL	11,580	15,673	16,886	17,137	11,291	12,218	8,741	8,794
South, East and South-East Asia:								
Bangladesh	...	3	1	4	14	11	2	14
China	3,393	3,487	4,366	11,156	27,515	33,787	35,849	40,180
India	...	...	74	277	550	973	2,144	-
Indonesia	682	1,093	1,482	1,777	2,004	2,109	4,348	-
Korea	1,118	788	1,180	727	588	809	1,776	2,325
Malaysia	1,668	2,332	3,998	5,183	5,006	4,342	4,132	
Maldives	4	6	7	7	7	9	7	8
Nepal	...	...	...	...	...	...	...	19
Pakistan	210	244	257	335	347	419	719	...
Philippines	563	530	544	228	1,238	1,591	1,478	...
Singapore	2,887	5,575	4,887	2,204	4,686	8,368	8,210	9,440
Sri Lanka	20	43	48	123	194	166	56	120
Thailand	1,775	2,444	2,014	2,113	1,804	1,366	2,068	2,336
South, East and S.-E. Asia TOTAL	12,320	16,545	18,858	24,134	43,953	53,950	60,789	54,442

Source: IMF, Balance of Payment Statistics (1997)

It is not obvious to find complete and comparable statistics. Therefore, Central and Eastern Europe TOTAL does not include Albania, Belarus and Moldova as the other former CIS states. These countries together, however, represent only 1 percent of total FDI inflows in CEE and the former CIS for the year 1995, for instance. Hence the amount presented is representative. South, East and South-East Asia TOTAL does not include Afghanistan, Hong Kong, Myanmar and Taiwan Province of China for one of the following reasons: either inward FDI was marginal, as was the case for Afghanistan and Myanmar, or outward FDI exceeded inward FDI to such an extent that the situation is hardly comparable

to FDI inflow in Central and Eastern Europe. This was the case for Hong Kong, Singapore and Taiwan for these years. To obtain comparable inflows, inflow per capita or inflow over GDP should be compared. From the absolute figures of FDI inflow, however, it is already clear that the proportion of FDI inflow in CEE increased and levelled of already in 1996. The region appeared as a new destination for FDI by Western European and US companies, but compared to its population and GDP, FDI aggregate inflows per capita in Eastern Europe are below Turkish and far below Greek, Spanish and Portuguese levels.

Within CEE, there is an uneven distribution of the net inflow of foreign direct investment between countries. Hungary received the major part of the investment until 1996. Since then, the Polish net FDI inflow was on the rise. Note that figure 4 depicts the absolute FDI inflow that is not corrected for GDP differences.

Figure 4: Net *FDI inflow in selected transition economies (million USD) (1991-1999)*
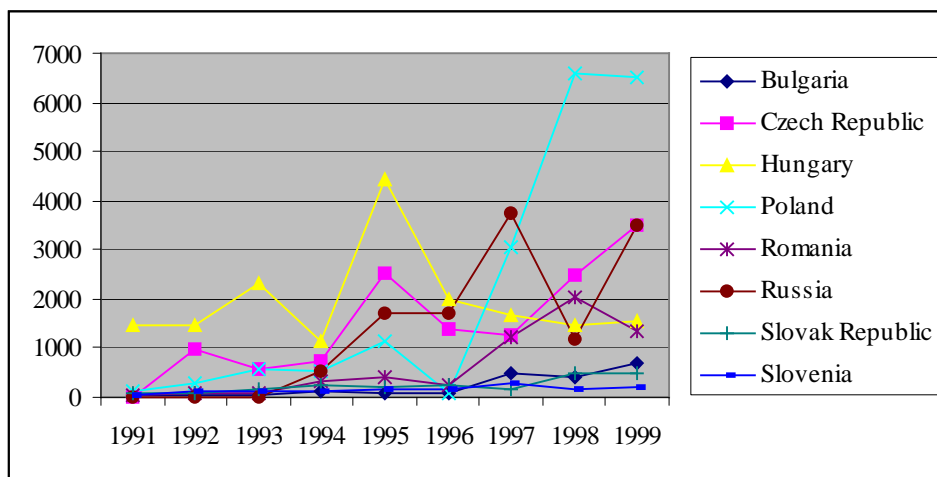
Source: EBRD Transition Report 1999, table 3.1.6.

Notes: For most countries, figures cover investment in equity capital and in some cases contributions in kind. For the Slovak Republic where net investment into equity capital was not easily available, more recent data include reinvested earnings as well as inter-company debt transactions.

The increasing outward FDI flows of transition economies are driving a wedge between net and gross FDI inflows. In 1998, for instance, gross inflows exceeded net inflows by 30% in the Slovak Republic, by 7% in Slovenia, and by 36% in Russia.

I.2.2. What is special about transition countries and how is FDI affected by transition?

Countries in Central and Eastern Europe classified as 'transition' countries have certain characteristics that had an impact on FDI timing and investment mode. In other words, to fully understand FDI in CEE one needs to understand the functioning of privatisation that is peculiar to this region in the early transition period.

I.2.2.1. Privatisation speed and methods

In a transition environment, investment, just like any form of firm behaviour, was subject to the interference of unstable institutions. The communist period institution had been through the central plan. Vertical coordination was very strong in communist economies, but horizontal linkages were very weak, which led to high transaction costs between enterprises within the supply chain. The focus of the plan was quantitative output, neglecting profit maximization and quality.

Transition was expected to replace the plan by the market as a more efficient coordination

mechanism. Yet, before the adequate institutions could be set up to support the market and guarantee restructuring of enterprises, the old economic system had already disintegrated. Politically, in most countries in CEE, there was a push to create markets before the institutions supporting them were created. This created a drive for speedy privatisation and initiated a debate on the ideal method of privatisation to be chosen (Hare, Batt, Cave, Estrin (1999)). To understand FDI in CEE one needs to understand how this process worked.

Based on the data gathered by the privatisation agencies of the respective countries and the OECD, foreign investors could monitor the advancement in privatisation across a range of countries. To these potential foreign investors, competition of both domestic and international firms was conditioned by the speed and method of privatisation and, hence, had its effect on timing of entry and entry program[4] (when, where, how much and how fast). Privatisations were, according to the country, subject to certain rules. Share ownership requirements was stipulated by several governments. The evolution of the private sector's share in each business sector was different across countries and determined the localization of the foreign investor. During the period 1990 and 1998 the average share of private ownership increased from 20 to 60 percent of GDP. This meant many companies changed ownership.

Figure 5: Evolution of the private sector share of GDP (1991-1996)
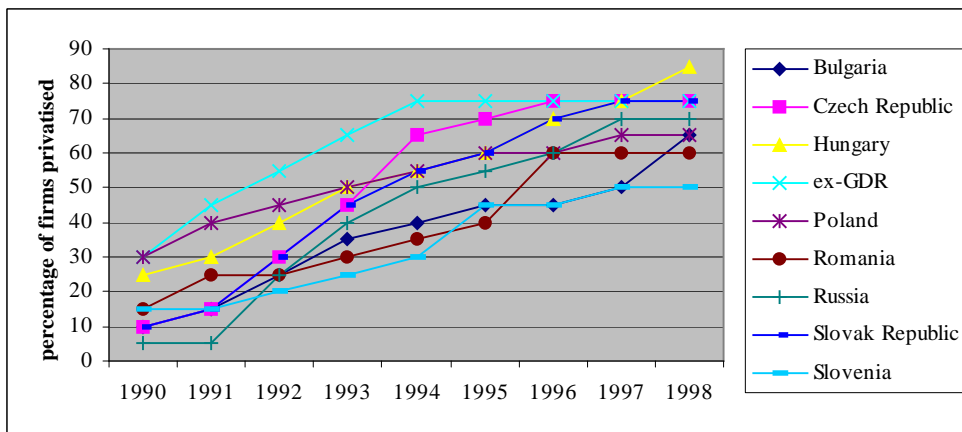
Source: EBRD (1999)

The private sector shares[5] converged towards a level of about 60 to 85 per cent by 1998. This is comparable to the levels of the Western European market economies. Poland, Bulgaria and Rumania lagged behind Hungary, the Czech and Slovak Republic and the former GDR. An exception was Slovenia, where the pace of large-scale privatisation remained slow. Over the whole region of Eastern Europe, some large-scale companies in the aluminium, steel and oil sectors were, by 1998, still in the process of being privatised by state agencies. The overall figure of private sector control, as shown in Figure 5, masks sharp contrasts across industrial sectors, as shown by Barrell, Holland (1999) for two years for the 'Visegrad' countries (Table 2). Also, note that the data are not completely comparable. For Poland and the Czech Republic, the measure taken is the share of total business sector employment in the private sector. The measure for Hungary is the share of sectorial value added produced by the private sector. In spite of its limitations, the table indicates the main trends.

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[4] see Chapter II where the entry program dealt with in this dissertation is explained.

[5] The share of privatisation determines the timing of investment and the localization choice. The private sector share is a composed result of privatised firms, beside de novo private firms that did not exist before privatisation of SOEs. The rate of privatisation is, hence, not equal to the rate of privatisation by existing firms only.

Table 2: Private sector share of the manufacturing industry, 1993 and 1996 for the Czech Republic, Hungary and Poland

	NACE Rev.1 code	Czech Republic			Hungary			Poland		
		1993	1996	growth 1996 vs. 1993	1993	1996	growth 1996 vs. 1993	1993	1996	growth 1996 vs. 1993
food, beverages and tobacco	15+16	34.0	63.5	1.9	70.3	95.2	1.4	58.2	77.1	1.3
textiles and apparel	17 thro 18	28.8	56.6	2.0	72.8	93.5	1.3	50.2	68.8	1.4
leather	19	15.5	33.6	**2.2**	73.4	93.5	1.3	50.3	65.8	1.3
wood	20	30.8	58.6	1.9	74.7	95.3	1.3	56.3	77.8	1.4
pulp, paper	21	28.5	53.8	1.9	51.9	95.3	1.8	36.8	65.3	1.8
chemicals, petroleum	23 thro 24	7.6	34.0	**4.5**	12.3	60.0	**4.9**	21.0	32.3	1.5
rubber and plastics	25	34.5	59.8	1.7	78.1	95.0	1.2	40.6	81.2	2.0
minerals	26 thro 27	42.9	64.7	1.5	66.5	97.0	1.5	36.5	60.1	1.6
machinery, electrical equipment	29 thro 32	39.2	60.6	1.5	79.5	97.6	1.2	52.6	94.4	1.8
vehicles and transport equipment	34 thro 35	43.2	58.6	1.4	63.1	97.6	1.5	15.4	33.6	**2.2**
other	28, 33, 36	25.2	53.2	**2.1**	68.6	90.8	1.3	43	61.1	1.4

Source: Barrell, Holland (1999); growth figures are absolute differentials

The energy sector (chemicals and petroleum) experienced a boom in privatisation, but was by 1996 still mainly state property. In the Czech Republic, the leather industry was hardly privatised, as was the transport equipment industry in Poland. Hungary had by far the highest average private sector share for manufacturing industry as a whole by 1996.

We briefly comment on the methods used. When looking into the pattern of privatisation, the privatisation in Central an Eastern Europe is quite different from the case-by-case privatisations of public companies that took place in the UK and France in the 1980s-1990s. In Eastern Europe, only Hungary adopted a similar type 'Western type' of privatisation. In the other Central and Eastern European countries, mass privatisation programs were gradually set up with standard systems and procedures rather than case-by-case approaches. We give an overview per country.

The Czech and Slovak Republics, Lithuania and Russia opted for a mass privatisation with the direct system of distributing vouchers to citizens. The Russian Mass Privatisation Program was modelled on the Czechoslovak and later Czech and Slovak program, but on a much more massive scale. Unlike the Czech and Slovak Republics and Russia, Poland, Rumania and Slovenia opted for a mass privatisation program with state-created investment funds that owned all or part of the companies to be privatised. Citizens became shareholders of the funds, rather than of the underlying companies. The Hungarian 'small investor' scheme has some elements of the mass privatisation scheme but it is different. It is more of a case-by-case privatisation approach as Western Europe adopted before. The privatisation in the former GDR is very specific and hardly comparable to the other countries. The 'Treuhandanstalt', an agency that was originally founded as a replacement for the state planning agencies, received its mandate from June 1990 onwards and proceeded very rapidly. With regard to the process of privatisation there is, in retrospect, no method that seemed to be superior in its capacity to speed up the investment rate. The Czech Republic and Estonia, the two leading countries in the advancement in privatisation, used totally different methods and were equally advanced. The countries that have privatised the largest number of companies in nominal terms have in one way or another always opted for some sort of voucher scheme, however.

Most countries actually adopted a mix of privatisation methods over time. Bulgaria, for instance, used only trade sales in the earlier years, and from 1995 onwards it embarked upon mass privatisation. Rumania, which had resorted for a large portion to employee/management participation, also belatedly started with mass privatisation. The scheme below summarizes the determinants of the rate of privatisation.

DETERMINANTS OF THE RATE OF PRIVATISATION
- Legislation and institutional arrangements
- Small privatisation much speedier because of its simplicity, both institutional and methodological
- Large privatisation slower because of higher complexity
- Privatisation methods:
  - Mass privatisation or voucher auctions to the population
  - Trade sales
  - Management and employee participation
  - Public offerings of shares
  - Liquidation

We give an overview of the privatisation methods in the framework of mass privatisation plans in each country (summarized in Table 6). The political development of turning state owned property to private hands had an impact on the pace of investment and the opportunities open to (foreign) investors. The methods of privatisation the particular host country in Eastern Europe had opted for have clearly conditioned the new local organizations, also those set up by foreign companies (Stark 1992). Second, the speed of privatisation determined the pace of foreign investment and, consequently, the host country choice. Third, the speed of privatisation was also heavily determined by the method. This will become clearer by the description of the methods.

I.2.2.1.1. Mass privatisation (direct through vouchers or non-direct through state-created investment funds)

1.2.2.1.1. Mass privatisation

Mass privatisation is visualised in a brick pattern in Figure 6. Mass privatisation through voucher schemes such as those carried out in the Czech Republic had not been common before. It was an idea developed by Svejnar (1989). Mass privatisation programs were launched in different countries. Political commitment and support was necessary for their success. The credibility of the mass privatisation depended on a 'critical mass' of state-owned enterprises being offered to the public against vouchers or other preferential means of payment. Special powerful institutions needed to be created to enforce these government privatisation programs.

The Czech and Slovak Republics, Lithuania and Russia opted for the direct system of distributing vouchers to citizens, who could invest them either in companies or through investment funds. In all these countries voucher sales could be combined at the individual enterprise level with other methods of privatisation – in Russia, they were predominantly combined with insider sales, i.e. sales to managers and other employees.

Unlike the previous countries, Poland, Rumania, and Slovenia adopted indirect mass privatisation via state-controlled investment funds that owned all or part of the companies to be privatised. Citizens became shareholders of the funds, rather than the underlying companies. From an institutional point of

view, this method proved to be more complex than the direct system, because the process of political approval was slow (OECD, 1995b).

The success of the MPP (mass privatisation program) depended largely on the role played by the financial intermediaries. A real private sector governance structure had to be created in those countries with compulsory intermediation for the privatisation program. Managers had to receive appropriate incentives of profit maximization. Secondly, a stringent timetable and framework for the privatisation was needed.

In countries with a 'direct' voucher system, private intermediaries acquired a large percentage share through voucher auctions. In the Czech Republic investment funds acquired 70 per cent of the shares sold in voucher auctions. In Russia, investment funds acquired more than 50 per cent. Voucher funds show a conflicting nature, though. On the one hand, they have a holding function with extensive exposure to risk and lower liquidity levels. In the meantime, they need to protect the investor interests as mutual investment funds in which the population has invested its rights to property. For the latter role, they need to maintain highly liquid asset structures. A conflict of interests clearly resulted from this.

Problematic as well is the relationship between the banks and the investment funds. The combination of the lending and the shareholding function might create conflicts of interests. It may also delay the enforcement of market discipline, including bankruptcy procedures, on the newly privatised enterprises.

I.2.2.1.2. Trade sales

We define trade sales as sales of enterprises though public or closed tenders, direct sales or different forms of auctions. It is the horizontal stripes pattern in Figure 6. Hungary and the Slovak Republic were sceptical about mass privatisation. Hungary stopped its Small Shareholder's program already in 1994. Afterwards, trade sales became the country's major privatisation method. The second wave of mass privatisation in the Slovak Republic was cancelled in favour of trade sales. The vouchers that had already been distributed were exchanged for government bonds. Bulgaria and the former GDR privatised mainly by trade sales as well. After voucher privatisation, residual shares were sold in trade sales in other countries as well.

Although trade sales are not a rapid way of privatisation, this method stimulates foreign direct investment. It adds value through capital and management expertise. Governments benefited from revenues from these trade sales and from the transfer of know-how.

I.2.2.1.3. Public offerings of shares

Stock exchanges played an important role in the establishment of effective corporate control structures for newly privatised enterprises, but IPOs were extremely limited still in the region. In Figure 6, the vertical stripes pattern refers to public offerings of shares. Poland, Hungary, Slovenia, Russia and Rumania conducted some IPOs. Only those in Poland and Hungary concerned firms with international recognition. In the Czech and Slovak Republics the exchanges were created as an immediate consequence of mass privatisation, but they did not really result in the vast and liquid share markets governments had hoped for. It remains to be said that, although the development of these stock exchanges was an important step in consolidating post-privatisation ownership structures, most block transfers of shares in these countries took place outside these stock exchanges and beyond the reach of the domestic population as well.

In reality, this 'unofficial' market was the predominant form of ownership consolidation, because the stock exchanges were at that time only in a preliminary stage. The OECD indicated that asymmetric information on share prices, supply and demand resulted in unrealistic price formation in the exchanges

and severe liquidity problems (OECD, 1995b).

Apart from the methods discussed, there was also the restitution of factory and land ownership to the pre-communist period owners. This was, for instance, the case for some factories owned by the Belgian company Solvay in the former East Germany.

I.2.2.1.4. Management and employee participation - Buy-outs and buy-ins as privatisation method

This form is found in Slovenia, Rumania, Russia, Poland, the former GDR and Hungary. In Figure 6, the privatisation methods with management and employee participation are in points pattern. The largest application of buy-outs is with the Treuhandanstalt in Germany, but not in the framework of the large privatisation method[6]. About 2,000 out of 11,000 privatisation transactions carried out from the beginning until the end of 1992 took the form of buy-outs. Most buy-outs were, however, related to small privatisations.

In Poland, the majority of insider transactions were done in the context of liquidations. The transfer of some of the assets to a new enterprise followed the winding up of the SOEs (state owned enterprises). Subsequently, these enterprises were sold to insiders. Ninety per cent of these insiders were either managers or employees. Rumania also experimented with MBOs. In Hungary, the form was exceptional. Russia is the country that created the most significant incentives for insider privatisation.

I.2.2.1.5.Liquidation

The last method of privatisation was liquidation. In figure 6, it is the wave pattern. Liquidation encompasses the winding up of companies and the spin-off of enterprise units as going concerns or the reorganization of firms. In Poland, many liquidations took place. Insolvency proceedings were used to restructure more than 100 large firms in Poland, and for almost a quarter of the total number of privatised firms in Hungary and in the former GDR. In Russia, only 2 percent of companies were liquidated by 1996.

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[6] A comment on the way the Treuhandanstalt dealt with this delicate task you can read in Luft, Christa. 1992. Treuhandreport. Werden, Wachsen und Vergehen einer deutschen Behörde.

Figure 6: Relative weight of different privatisation methods
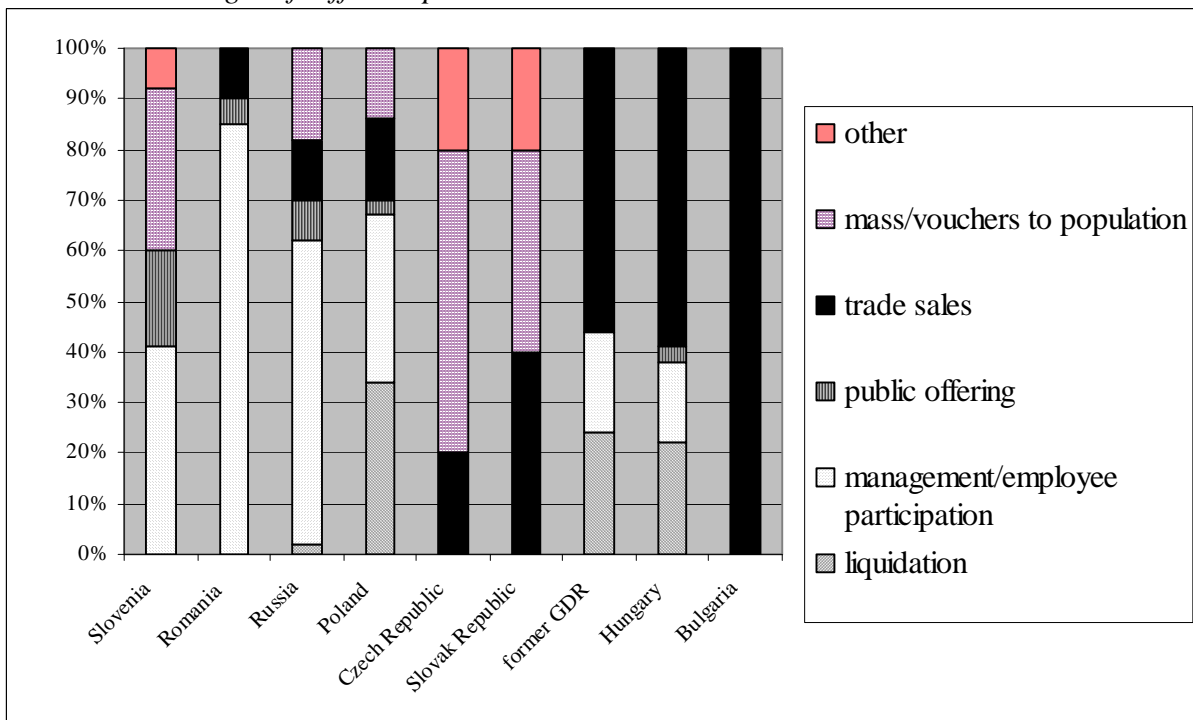
Source: OECD. 1995a.

Table 3: Comparison of privatisation methods among major Eastern European countries

MPP (mass privatisation program)	Poland	Czech Republic and Slovak Republic
portfolio of firms to be privatised	large menu of approaches:: small-scale, liquidation (form of buy-out), capital privatisation via the stock exchange sectoral privatisation, contracting-out, MPP	initially all, but then range of options competing plans from any party encouraged
firms belonging to the MPP	400-600 large SOEs	all, but later range of options
speed of privatisation	lower, blocked by parliament	high, 2 waves in a 2-year period : 1630 firms in wave 1
medium and large SOEs		1248 in wave 2 for Czech Republic
		for Slovak Republic: 626 in first wave, 573 in 2nd wave
corporatisation	not compulsory	initially compulsory, afterwards not
use of vouchers	used for placement in investment management funds	market driven, laissez-faire
investment funds	20 financial intermediaries managed by world class firms, holdings of the funds float at stock exchange or divest assets	10 funds have 40 per cent of vouchers few powerful investment funds independence problem
state property agencies	initally MPP foresaw 25 % state ownership passive governance rights over its portfolio	state ownership held until 2nd wave of privatisation 40 % state ownership of banks holdings used to solve privatisation problems
capital market development	400-600 firms privatised in 1995 later development of Warsaw Stock Exchange, enterprises held by national investment funds (NIFs)	secondary capital market privatised companies heavily traded development of Prague Exchange

MPP (mass privatisation programme)	Russia	former East Germany
portfolio of firms to be privatised	same as Czech BUT more incentives for employee ownership ONLY voucher auctions for privatisation of large SOEs	8500 SOEs and conglomerates split into 14,000 independent entities before privatisation 3,400 companies liquidated direct sale to strategic investors
firms belonging to the MPP	followed Czech approach	
speed of privatisation	speed more important than menu of approaches	SOEs mainly finished by end of 1994
medium and large SOEs	high rate of regional voucher auctions (900 a month) finalised by June 1994	
corporatisation	compulsory	
use of vouchers	all citizens for use in the MPP only	none
investment funds	spontaneous formation of intermediaries but prevent fund abuse results in management ownership of many SOEs	not, privatisation through the Treuhand
state property agencies	20 % in large federally-owned enterprises	Treuhand
capital market development	14000 privatised by June 1994 supporting intermediaries developed regional Exchanges in Moscow, Saint Petersburg pocket banks' = bank-industrial holding companies	part of Germany: legal system of Germany transferred western subsidies speedy transfer of know-how makes it difficult to compare with other countries

I.2.2.2. Sources of uncertainty: corruption in the transition economies of Central and Eastern Europe

Under central planning in CEE, there was no need for the legal and institutional framework underpinning a market economy. Once transition started, foreign investors feared being confronted with high corruption in CEE. Corruption is the misuse of public power for private benefit that is manifest through bribing of public officials, taking kickbacks in public procurement or embezzling public funds. Some public officials and politicians are vulnerable to it. A widely used measurement is provided by Transparency International (Göttingen) and is based on systematic surveys among businessmen of leading TNCs.

Gros, Suhrcke (2000) cannot distinguish transition economies in CEE from other countries with a comparable income per capita on the basis of this criterion of corruption. Gros and Suhrcke find that corruption in Central and Eastern Europe is not higher than in other transition countries such as the eight Asean countries (Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand, Vietnam). Countries with lower GDP are not necessarily more corrupt than countries with higher GDP. Whereas in general corruption seems to be negatively related to income, their research showed that differences in GDP alone explain only 60 percent of the variability in the corruption index of these countries.

South Eastern Europe (i.e. Albania, Bulgaria, Croatia, FYR Macedonia and Rumania) was an outlier in the relationship between GDP and corruption. These countries were characterised by both a lower GDP and higher corruption than the other Eastern European countries (Gros, Suhrcke (2000)).

Figure 7: Corruption indices[7] in selected Eastern European countries over the years 1989-1998

Over the transition period 1989-1998, the regulatory environment in Central and Eastern European countries has changed. The corruption index shows that, on average, Russia is the most corrupt country, followed by Rumania and Bulgaria. Compared to Central and Eastern Europe, the former GDR is much less corrupt. The Czech Republic, followed by Slovenia, is the least corrupt state within CEE. In between are Poland, the Slovak Republic and Hungary. Whereas in the other countries, corruption is more or less stable, or even diminishing, Russian, Bulgarian and Rumanian corruption increased over the period 1989-1998 in the perception of businessmen (source: Transparency International).

I.2.2.3.Initial conditions and stabilization programs in selected transition economies

Table 4 lists major countries in Eastern Europe and the former Soviet Union, for which comprehensive data for the period 1989-1994 is reported with respect to the start of the stabilization program, the adopted exchange regime. The second column reports the country's stabilization program date. The date given is the start date of a country's inflation stabilization program and not necessarily the start date of an IMF program. Mostly, however, the stabilization date coincides with the date of an arrangement of the country with the Fund. When several stabilization attempts were undertaken, the most serious attempt (as of mid-1995) is reported as the reference date. The policy package associated with a stabilization attempt was taken into account.

The third column provides the exchange regime adopted during the stabilization program. The fourth column and the fifth column relate to initial conditions of the economy: estimates of per capita GNP in 1988, on a PPP basis and the ratio of CMEA exports to GDP in 1990 (source: De Melo, Denizer, Gelb (1995)). Estimates of per capita GNP in dollars instead of PPP would be far lower. It provides an estimate of pre-transition income level differences between countries. These income levels are indicators of possible consumption in the local markets. The smaller economies such as the Baltic economies and Slovenia are relatively advanced. Russia's GNP per capita is high and amounts to 7519 US$ in 1988. For Hungary, per capita GNP in 1988 is equal to 6569 US$ followed by a level of 5968 US$, 5536 US$, 4941US$, 3722 US$ respectively for Bulgaria, Ukraine, Poland and Rumania. Data for the Czech and Slovak Republics are not provided.

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[7] The corruption perceptions index (CPI) score ranges between 10 (highly clean) and 0 (highly corrupt).

Table 4: Initial conditions and stabilization programs in transition

country	Stabilization Program Date	Exchange Regime Adopted	CMEA Exports to total GDP (1990)[a]	GNP/Capita at PPP (US\$ 1988)[b]
Bulgaria	Feb-91	Flexible	15.3	5,968
Croatia	Oct-93	Fixed in practice	5.6	n.a.
Czech Republic	Jan-91[c]	Fixed	9.8	n.a.
Estonia	Jun-92	Fixed	27.2	9,078
Hungary	Mar-90	Fixed	9.8	6,569
Latvia	Jun-92	Flexible/Fixed[d]	31.3	7,911
Lithuania	Jun-92	Flexible/Fixed[d]	33.7	6,816
Macedonia, FYR	Jan-94	Fixed in practice	5.6	n.a.
Poland	Jan-90	Fixed	16.5	4,941
Romania	Oct-93[c]	Flexible	3.3	3,722
Russia	April-95[c]	Flexible	17.9	7,519
Slovak Republic	Jan-91	Fixed	9.8	n.a.
Slovenia	Feb-92	Flexible	4.6	10,663
Ukraine	Nov-94	Flexible	24.6	5,536

Sources: IMF staff estimates, national authorities, De Melo, Denizer and Gelb (1995)
[a] CMEA stands for the Council for Mutual Economic Assistance – a regional trading arrangement comprising the former USSR and nine other Soviet bloc countries. In the case of FSU countries (we report on Russia and Ukraine), ratios are FSU exports to GDP.
[b] As currencies have generally been undervalued during the transition, the PPP measures are far higher than measures in U.S. dollars based on market exchange rates.
[c] These countries had more than one stabilization attempt.
[d] The Latvian currency was pegged to the SDR in February 1994; Lithuania adopted a currency board in April 1994. Both countries had flexible exchange rate regimes prior to these dates.

During the transition period, the EBRD and Fisher, Sahay, Vegh (1996,1998a, b) continuously recalculated progress in a transition index[8] based on different factors: the private sector share of the economy, price liberalization, the system of trade and foreign exchange and competition policy.

I.3. STRUCTURE OF THE DISSERTATION

THEORY   EMPIRICAL ANALYSIS

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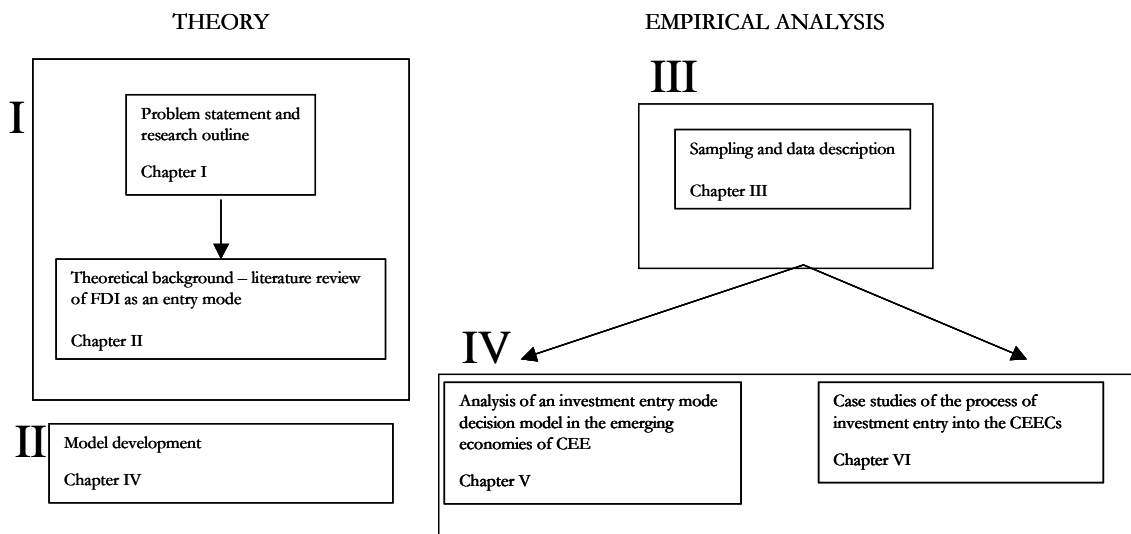
[8] The interested reader is referred to EBRD Transition Reports.

In the previous sections of this dissertation, we defined some problems related to entry mode decision-making. We gave statistical evidence on the evolution of the FDI inflow towards the emerging markets in CEE and paid attention to special issues typical of the transition context in the early nineties in the Central and Eastern European economies. Compared to FDI in other parts of the world, two aspects might have been different due to transition effects, first the pace at which investment was realized and, second, the availability and implications of the usual entry mode alternatives. In Section I.4. we summarize existing research about the change in coordination mechanism, motives and entry mode in the CEECs.

The fundamental questions we try to answer are linked to the determinants of the entry mode decision. To this purpose, we will review the progress in this field and the theoretical frameworks that are used to explain ownership and way of growth entry mode decisions in Chapter II).

The remainder of the dissertation is structured as follows. To be able to test the validity of the model proposed, a database was constructed. Part Two consisting of Chapter III explains sampling and data description and the methodology of the construction of the database. Part Three with chapter IV develops an empirical eclectic framework for foreign investment as an entry mode decision and formulates the hypotheses that address the research questions.

Part Four gives the results of the analyses, respectively for ownership and establishment mode decisions (Chapter V). The penultimate Chapter VI gives complementary insights into the process of decision-making on investment mode and order of entry through four case studies chosen according to the typology derived from the discrete choice analysis. Finally, part Five summarizes and concludes. Finally, part Six summarizes, concludes and gives hints for further research.

I.4. EXISTING RESEARCH ON FOREIGN DIRECT INVESTMENT IN EASTERN EUROPE: DIRECTIONS

I.4.0. Introduction

The aim of this section is to provide a sketch of research in transition economics[9] that is relevant to understanding the timing and mode pattern of FDI towards the CEECs. Evolutionary economics states that organizations such as these existing in a planned economic system followed a path that led them to be more or less efficient and socially acceptable. North (1990) and the institutionalists show that institutions that could generate social benefits do not always emerge, and that 'inefficient' institutions emerged and did survive. The historical experience of the firm, or path dependency, determines to a large extent how efficiently it underwent transition. With hindsight to post-command economies, the inheritance and experience from the communist-period regime shapes the new institutional framework that appeared gradually in the CEECs and under which entry could occur (North (1990)). The way the new institutional framework is set up is determined by the privatisation methods (I.2.2.1.). These have an impact on both the timing and mode of foreign investment. In most cases the building of new institutions took time. Firm behaviour is subject to the interference of unstable institutions[10]. Section I.4.1. discusses this impact of the change of the coordination mechanism on timing and mode of inward investment. Section 1.4.2. briefly summarizes the evidence on the motivation for FDI and the entry mode decision.

I.4.1. The change of the coordination mechanisms

During the period we study (1990-1998) entry into the CEECs was affected by a change in coordination mechanisms. This gradual change of coordination mechanism involved a change in the status of ownership and in the objectives of managers in firms. It created a problem of timing and uncertainty.

Unofficial 'hidden' activity[11] in enterprises in a transition economy for instance, was omnipresent, although different across transition countries (Johnson, Kaufmann, McMillan, Woodruff (1999)).

In the pre-transition period, the need to comply with the plan as a coordination mechanism had led to a parallel economy, the amount of which is still being modeled and estimated (Johnson, Kaufmann, McMillan, Woodruff (1999)). Output in a firm functioning within the logic of a planned economy was partly hidden. Bureaucratic corruption is found to be significantly associated with hiding output (Johnson et al., 1999). Some effect of inefficiency was due to the inherited structure of generalized public ownership.

The dissolution of the central plan made managers become more independent economic agents (Swaan, 1997). Before transition, institutions such as routines, knowledge and procedures, both at the individual level and at the organizational level, led to higher transaction costs and, hence, often to market failure. During transition, the aim of profit maximization and managerial rent seeking was gradually introduced in the transition economies.

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[9] Many scholars of former planned economy in the West transformed themselves into investigators with a new vocation, namely that of studying the transition of the planned economic system to market economy. This field quickly expanded and gained interest by the joint study of transition problems in institutional economics, labour economics, industrial economics and international business. At the basis lies the theory of institutional change during a transition.

[10] There is a literature on the change of co-ordination mechanism that is summarized by Blanchard, Kremer (1996).

[11] This, evidently, will influence investment decisions, both their timing and their manner.

Finally, one of the problems was that the old economic system collapsed before the new institutions supporting a market economy were well established. This generated a lot of uncertainty. The system under construction was a distinctive form of capitalism, a mixture of the inheritance of the region and the imported structures of the Anglo-Saxon economies. Hare et al. (1999) claim that the push towards creating markets before creating institutions has been especially drastic in the area of capital markets. Stock exchanges were created and mass privatisation brought firms to the exchange. The failure of a timely establishment of the institutional framework led to opportunities for abuse by insiders and the partial absence of restructuring to accompany privatisation (Spicer, McDermott, Kogut 2000). The turbulence in institutions increased transaction costs, especially the costs of creating new business relationships. It may be questioned to what extent it inhibited foreign investment. Blanchard (1997)[12] argues the essence of the so-called coordination failure is the following. The necessary information on which an investment decision is made is lacking. Bureaucracy is inexperienced, regulatory frameworks are not yet functioning and property rights are unclear. Other evidence of coordination failures[13] includes the re-use of informal networks as alternative exchange mechanisms for markets that are not functioning properly – this e.g. explains the success of spin-offs[14] as entry modes (e.g. Sedaitis, 1998) and the use of network-based growth strategies. Peng, Heath (1996) argues that traditional internal or external growth sometimes does not work precisely because the markets of resources do not function properly.

I.4.2. Motives, entry mode and timing of entry in Eastern Europe

I.4.2.1. Motives for FDI in Eastern Europe

Most studies on determinants of FDI in Central and Eastern Europe are based on the theoretical argument of internalisation[15] (Chung, Alcacer, 2000). Studies are based on survey data, aggregated data or disaggregated data by sector. All surveys among Western investors in the CEECs reported market seeking as the main motivation for FDI in the CEECs (Dunning, Rojec (1993), OECD (1995), Lankes, Venables (1996), Meyer (1995, 1998), Pye (1998), Clausing, Dorobantu (2005)). Potential investors in Eastern Europe expected long-term growth of demand, especially because of a rise in the income of the middle class that was higher than GDP growth.

The prerequisite for a market-seeking motive is that there is a belief in the attractiveness of the market. Several features make the markets in CEE particularly attractive (Estrin, Meyer (1998)). First, consumers had little access to consumer goods and brands that were available in other countries with comparable income per capita. Trade liberalization enabled a catch-up of this consumption gap, especially for consumer durable goods. Western products had a good image as a result of Western media advertising and brand building. Second, entry in the CEECs may be a strategic move by MNEs to sustain or enhance their global strategic position. Entry is motivated by pre-emption of rivals. MNEs established in Western and Eastern Europe may have superior opportunities to exploit price discrimination, product differentiation or vertical integration. In industries with major network externalities, such as consultancy and financial services, presence in the CEECs may be necessary to follow clients globally. A third potential argument for the attractiveness of the Eastern European market as put forward by Estrin, Meyer (1998) is that several underdeveloped sectors of industry, utilities such as telecommunications, power-

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[12] He argues the co-ordination failure has been a major cause of the recession in the CEECs of the early 1990s.

[13] Other examples of co-ordination mechanisms are, for instance, the reinvention of barter trade (Commander, Momsen (1997)), especially in Russia.

[14] These networks partly replaced the connections that existed already during communism to overcome shortages created by the central planning system; these networks are called 'recombinant' networks of firms

[15] The internalisation literature is the major part of the FDI literature (Caves, 1996). It encompasses what is dealt with in this dissertation as transaction cost theory.

generation and distribution, transportation and infrastructure, needed to be re-established. The authorities invited foreign investors to tender for concessions[16]. The development of infrastructure generated opportunities for construction, turnkey-plant engineers and manufacturers of telecommunications equipment.

Factor cost oriented FDI, by some scholars also labelled efficiency seeking FDI (Dunning, Rojec, 1993) or cost seeking FDI (Estrin et al., 1997), is relatively small in number compared to market-seeking FDI in the CEECs. Altomonte (1998), using data broken down by sector, finds that the relative labour costs deter FDI only in sectors that have low or middle to low levels of sunk costs. Resmini (2000) finds that the level of labour costs is a statistically significant determinant of FDI only for projects undertaken in scale-intensive and high-tech sectors. Some industries such as textiles, clothing and furniture relocated production towards Eastern Europe to take advantage of low labour costs. Unit labour costs have risen substantially since, but are still significantly below Western European levels. Eastern European governments strengthened this comparative advantage by undervaluing their currencies and incomes (Meyer, 1998).

Strategic motives are the third motivation in Estrin et al. (1997)'s categorization[17]. These are reverse internalisation arguments (Chung, Alcacer, 2000), whereby the advantages lie much more in the combination of a comparative advantage of the host economy instead of the home economy of the MNE.

Initial motivations also vary. Some companies that initially focused on local markets started re-exporting when local markets became saturated and productivity in the Eastern European affiliates had increased.

I.4.2.2. State-of-the-art: Entry mode: ownership and acquisition or green-field in Eastern Europe

I.4.2.2.1.Ownership of FDI in the CEECs – caveats about definitions[18]

Brouthers et al. (2000) argue that the cultural attributes of home and host countries have an influence on ownership choices, beside firm and industry specific variables. There are a few factors that refrained investors from taking larger stakes. These have in essence to do with regulation.

One needs to be aware of the fact that, in the very early 1990s, a joint venture was the only legally permissible mode to establish a local operation in the CEECs (OECD, 1995b, Hood, Young (1994)). Regulation made a free ownership choice impossible. It was only in 1992 that FDI had become fairly deregulated (EBRD, 1995).

As a consequence of that, a higher share of joint ventures was observed, as well as a shift towards increased ownership or even towards wholly owned subsidiaries in the mid 1990s, both by new investors and by old investors (Sharma, 1995). Attention is paid to the fact that many (joint venture) acquisitions in the privatisation process occurred in a staggered pattern. As a result, the investor in many registered joint ventures in fact had full management control and often envisaged full ownership as a next step as soon as possible (Perotti, Guney (1993), Liebdoczy, Meyer (2000)). These 'transitory alliances' were determined by the typical institutional context, and share, as a matter of fact, little characteristics with

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[16] In Hungary, for instance, the second fixed–line local operator is Matel, a consortium in which Vivendi-Owned CG Sat has a 40% stake, General Electric Capital a 25% share, with the rest held by Israeli, Austrian beside Hungarian owners. KPN obtained a 49% share in PanTel, an operator with leased line and data services.

[17] Dunning, Rojec (1993) further distinguish a separate role for *resource seeking* and *strategic asset seeking* (Estrin et al., 1997).

[18] In II.2.2. we will refer to the determinants of ownership. Here, we report only on the empirical evidence that is related to Central and Eastern Europe.

conventional joint ventures[19]. In this way, governments obtained some control over restructuring and over externalities for the local economy[20], while at the same time capitalizing on the probable appreciation of the share value as soon as the transition economy became less uncertain. Governments often kept a golden share in strategic industries, both for economic and for political reasons (see also case studies).

Thornton and Mikheeva (1996) report that, at least initially, firms accepted lower participation because a local partner was useful in accessing local business and government networks. These informal networks were especially necessary in the least advanced economies, where they were a substitute for the lack of many functions of the institutional framework that existed in mature economies.

I.4.2.2.2. Acquisition or green-field in the CEECs

First, privatisation and restructuring in CEE seem to have an impact on the way of growth decision that is absent in other regions. Second, some authors put into question the definition of acquisition and green-field investment itself. Finally, there are preliminary results on the ownership choice as a determinant for the way of growth decision.

Sinn, Wiedenreicher (1997) point to the overrepresentation of acquisition entry in CEE because of the relationship with privatisation in the early years. Compared to global investment figures, they argue, there is a bias against green-field investment in Central and Eastern Europe. On a global scale, acquisitions account for no more than 30 % of the total flow of direct investment, according to Healey, Palepu (1993), whereas, on average, privatisation accounted for 60 % of FDI towards Eastern Europe (UNCTAD, 1995). Foreign investors in CEE were encouraged to participate in privatisation. Sinn, Wiedenreicher (1997) argue that speed, lower investment cost, lower administrative hurdles and the abundance of assets stimulated foreign investors to acquire a privatised firm. Besides, Sedaitis, J. (1998) argues that foreign investors in CEE got easier access to existing trade networks by acquiring privatised companies.

Estrin, Meyer (1998), on the other hand, found evidence of an increasing share of green-field investment over time, because investors intend to bypass the restructuring of local firms. Green-field allows investors to implement their corporate strategy without having to incorporate the heritage of an acquired firm. Especially small firms that lacked the managerial and financial resources to lead enterprise restructuring were observed to set up green-field investments (Estrin, Meyer (1998)). Brouthers, Bamossy (1997) argue that green-field investment became more popular, because acquisitions often required complex negotiations with governmental authorities or with management and work councils.

The initial entry mode decision is not made in isolation. As post-acquisition investment often exceeds the initial investment, and Estrin, Meyer (1998) argue that many so-called acquisitions take on features normally associated with green-field investment. They argue that such 'brownfield' investments can either be a substitute for green-field investments where crucial local assets are not available in unbundled form, or for acquisitions where the resources of local firms are too weak to face international competition.

Finally, there are different results concerning a possible link between ownership and establishment mode decisions. Early on, Stopford, Wells (1972) found, in general, that joint venture

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[19] This makes us cautious in interpreting the motivation behind the choice between joint ventures and wholly owned subsidiaries in these economies.

[20] Traditionally, for policy makers, the presumption has been that inward FDI is beneficial. It increases competition and productivity, but if many foreign entrants are motivated by knowledge seeking instead of knowledge-using motive, these gains in competition and productivity may not accrue and a nation's technological uniqueness might be more quickly replicated (Chung, Alcacer (2000)).

status was weakly associated with acquisitions, but did not found empirical support. Caves, Mehra (1986) found a positive relationship between acquisitions and full ownership. Unlike the latter results, Dikova, van Witteloostuijn (2005) found evidence for Central and Eastern Europe that acquisitions are likely to be joint ventures. They suggest that the type of ownership might be a significant predictor of firms' preference for a particular establishment mode[21], making joint venture acquisition and wholly owned green-field investments the more common combinations.

Gomes-Casseres (1989) found that acquired joint ventures are more common than are green-field joint ventures. Typologies of entry strategies in Eastern Europe are described by McCarthy, Puffer (1997, p.297) on the basis of case studies of American multinationals that invested in Russia. It is a combination of the strategic intent of entry and the entry mode. A descriptive overview of six strategic approaches after entry based on an initial entry strategy is provided.

Conclusion

We can conclude that different models of development were suggested for Eastern Europe in the early transition period and that the systemic model offers the most guarantees for fast reconstruction and stimulus for entrepreneurship in the region. Restructuring of enterprises took, among other ways, place under the form of foreign direct investment in the CEECs and was often part of a privatisation process of local enterprises.

In section I.1 we formulated two fundamental research questions that are interrelated. The first question we will try to answer is what determines which initial investment entry mode is chosen by foreign direct investors in Eastern Europe from 1990 onwards. Hereby, we combine two types of entry mode decisions, namely the ownership decision and the establishment mode decision. The ownership decision is the decision between joint ventures that are partially owned or, alternatively, wholly owned subsidiaries. The 'establishment mode' or 'way of growth' decision is the decision whether to set up a completely new plant, i.e. a green-field investment[22], or to acquire an existing local firm, i.e. an acquisition[23].

A second research question is whether there is empirical support for the theory of real options explaining the choice of a joint venture as an entry mode decision to stay flexible, especially in the presence of high uncertainty that was present in transition economies.

In Section I. 2. we summarized the aggregated FDI inflows in the CEECs and the distribution by destination country, showing the overrepresentation of Hungary in the early years of transition. The advancement in privatisation was different by host country and acquisitions were only possible after privatisation was certain. The mode of privatisation was and is country-specific. Different privatisation methods were used. Small privatisations were slower than large privatisations. Poland started later with its privatisation. In the Czech and Slovak Republics a concentration of investment funds dominated privatisation. In the former GDR the SOEs were already privatised in 1994. Financial intermediaries played a major role in the process of mass privatisation programs in most countries except in the former GDR. With respect to operating conditions, contractual uncertainty could also be measured by the corruption indices. If, in general, income differentials between countries are expected to explain the extent of corruption, Eastern Europe is not more corrupt than countries in other regions (Gros, Suhrke, 2000). Still, there are country differences. From the start, the initial conditions, such as GNP/capita at PPP and the export ratios were different.

Section I.4. discussed existing research on FDI in CEE. The change of the coordination

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[21] They call it a diversification mode.

[22] Green-field investment is also called internal growth.

[23] Acquisition investment is also called external growth.

mechanism in CEE offered possibilities of the re-use of informal networks. The creation of markets before creating institutions led to high uncertainty. Motives for FDI in Eastern Europe are market seeking, low factor cost seeking or strategic. Sinn, Wiedenreicher (1997) point to the overrepresentation of acquisition entry in CEE because of privatisation. Estrin, Meyer (1998) argue there is an increase in green-field investment over time in order to bypass restructuring. There are preliminary results that suggest that the type of ownership might be a significant predictor of firms' preference for a particular establishment mode.

Chapter II. Theoretical background

Foreign investment can be considered as an entry mode and is, as explained earlier, just one aspect of the entry program (Geroski (1991)). The new market that is entered is a new geographic market and not necessarily a new product market. This chapter reviews the extant theories that are able to explain investment entry mode (Caves (1996)).

Hereby, we leave aside the theory on foreign direct investment that explain the financial flow, the capital markets approach, that is more suitable an explanation for portfolio investments after all (Vernon (1994)). Also, the macroeconomic analysis with macro-environmental determinants such as exchange rates, tariffs[24] and negotiations about subsidies in the host and home countries is not included. Vannini (1995) develops a model that incorporates negotiations between potential investors and potential host governments. Li, Guisinger (1992), Rodrik, D. (1992) examine the role of approval procedures, tax allowances, environmental regulation and legal aspects and find that in developing economies, these institutional determinants have only minor effects on the investment choice itself. They do have an effect on the location choice within a particular country or region (Buckley, Mucchielli, 1996), Mayer, Mucchielli (1998, 1999), Hill (1990)).

Since the model[25] to explain entry mode of internationalisation by foreign investment by MNEs (Chapter IV) will be eclectic and based partly on neoclassical theory, partly on transaction cost theory, resource-based theory, economics of uncertainty and include strategic determinants, we review the theoretical foundations and earlier empirical applications of these models explaining internationalisation mode.

We review the different explanations given for foreign investment mode in the theoretical literature. Neoclassical theory (of international trade and investment) points out that location, timing and mode of investment are inspired by scale and scope advantages through FDI. Beside economies of scale, product differentiation, imperfect competition and trade costs determine the location decision (Krugman, 1991), Krugman, Venables (1994). Barrell and Pain (1999) summarize these determinants as centripetal and centrifugal forces leading to centralization or decentralization of foreign investment (II.1.). Transaction cost theory explains both the ownership decision and the way of growth decision as a way to minimize transaction costs, due to specific assets (Hennart, 1994). The theory of incomplete contracts and property rights view of the firm shows that a higher share of ownership must be given to the party of the transaction that has the greatest ex-post bargaining power over the division of the surplus. Resource-based theory sees FDI as an attempt to apply under-utilized productive resources to new business opportunities abroad. In organizational learning theory, the establishment mode is determined by the potential firms have to understand knowledge (Barkema, Vermeulen (1998), Hymer (1976)). Finally, the entry mode decision is not taken in isolation. Global strategy and global competition plays in determining the appropriate entry mode (Hill, Hwang, Kim, 1990).

The foreign investment mode decision is a process responding to both internal and external push and pull factors. The structure of the next sections is as follows. Part II.1. reviews the neoclassical theory that is mainly a localization theory of FDI. Part II.2. discusses the transaction cost based theory of the entry mode decision. It explains the building blocks of this theory more extensively (II.2.1.), because of the necessity to define them clearly enough to show the intersection with other theories, such as the economics of uncertainty. Subsequently, it is shown how these

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[24] The influence of tariffs changes over time. Tariffs and taxation influence FDI inflows in the short run and, even illogically, in the longer run, after their effect should be reversed, due to the 'hysteresis effects' (Pindyck, 1991).

[25] An overview of the different theoretical approaches to explain 'where', 'when' and 'how' firms internationalise is provided in Caves (1996).

building blocks intersect to explain foreign investment ownership (II.2.2.) and establishment mode (II.2.3.).

Section II.3. discusses the theory of incomplete contracts and property rights view of ownership decisions. Section II.4. discusses the resource-based and organizational learning view of establishment mode decisions. Section II.5. deals with the global strategic determinants of the entry mode decision. Finally, the real options theory might explain the balance between the push factors and potential entry deterrents for an ownership decision in section II.6.

II.1. DETERMINANTS OF THE LOCATION DECISION ACCORDING TO NEOCLASSICAL THEORY

Figure 8: Factors driving the localisation of investment entry, usual factors and measurement

localisation forces	centripetal forces high firm-level economies of scale agglomeration effects (= path dependency) = external economies of scale (between firms)	centrifugal forces low firm-level economies of scale dispersion effect
factor	*host country industrial specialisation:*	*national labour market cost:*
measurement	size of the national market relative research base	relative labour costs

Source: Barrell, Pain (1999)

The traditional basis for the analysis of the location of foreign investment as international economic activity is the neoclassical theory of international trade and economic geography. Production cost advantages[26] can explain location decisions in industries with low transportation costs. Beside production costs, market-related advantages increasingly replace production cost advantages as the main determinant of FDI. Newer theories in this field show product differentiation, imperfect competition, trade costs and economies of scale determine location choice (Krugman, 1991). In economic geography, Krugman, Venables (1994) show location is a balance between centripetal and centrifugal forces. The tension between both determines the concentration of FDI in a specific location or host market. Both centripetal and centrifugal forces depend, in fact, on economies of scale and determine the attractiveness of the host markets (Barrell, Pain, 1999). Centripetal location factors encourage the centralization of investment in one country. Centrifugal forces encourage the dispersion of investment across countries.

High economies of scale at the firm level or internal economies of scale form centripetal forces that reduce the number of locations at the firm level. They evolve with technology. Beside, external economies of scale between firms that are close to each other reduce costs, leading locations to become cumulatively more attractive. The agglomeration effect of locally available skilled labour or scientific knowledge and direct links with other firms makes the location cumulatively more attractive (Venables, 1996). The pooling of skilled labour, technology or links of knowledge exchange between firms makes the location cumulatively more attractive to competitors and related firms (Venables, 1996, Barrell, Pain (1999)) and this constitutes extra centripetal forces. Hence, comparative advantage of a region for incoming FDI is potentially path dependent. Initial small differences between nations can endogenously widen over time. Temporary differences in national characteristics can have

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[26] Formal location theories that base location decisions on transport and production costs do not explain why regions with similar factor endowments have different industrial structures.

permanent effects on the location of activities[27].

On the other hand, centrifugal forces can make the host markets less attractive. Operating cost differentials spread FDI across regions. A broad measure of relative costs is unit labour cost relative to other locations. Head, Ries, Swenson (1995) show that Japanese foreign direct investment in the US migrates towards lower labour costs locations instead of being concentrated in one location[28]. To illustrate the balance between centrifugal and centripetal forces, a gain through a higher research base can compensate for the loss in comparative advantage due to relatively higher labour costs, as has been reported for German companies[29] (Belitz, Beise, 1999). It might be questioned whether building up a comparative advantage through R&D to compensate for higher labour costs can be out of reach for some regions. It is documented that there is little evidence that GDP[30] in Eastern Europe converges towards the level of development of some countries in Southern Europe (Estrin et al. (2000), Estrin, Urga, Lazarova (2001), Carlin, Estrin, Schaffer (2000)), and there is no effective reallocation within countries such as the former Yugoslavia, the former Soviet Union and the former Czechoslovakia (Estrin, Urga, Lazarova (2001)).

II.2. TRANSACTION COST DETERMINANTS OF THE ENTRY MODE DECISION

We review the transaction cost economics literature in view of the explanation of two parts of the foreign investor's entry program: 'how' do they invest, i.e. which type of ownership decision, and which type of growth decision is made? We briefly review the building blocks in section II.2.1. and apply them to the ownership decision (section II.2.2.) and to the way of growth decision (section II.2.3.). Transaction cost theory has been applied to explain specific types of foreign investment[31]. This literature can be split into two groups. The big chunk of it explains the choice of ownership rather than the establishment mode decision by transaction costs. The more specific the assets and the higher the risk of opportunistic behaviour with regard to the transferred assets, the higher will be the propensity of firms to fully control in the form of wholly owned subsidiaries rather than joint ventures.

II.2.1. Transaction cost economics and the building blocks – asset specificity, frequency of transaction and uncertainty

Coase 's theory of the firm (1937) identifies the firm as a bunch of activities that are linked via intermediate products and subject to transactions. Differences in transaction costs explain whether a firm procures via the market or produces to its own requirements. There are transaction cost

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[27] Barrell, Pain (1999) obtained evidence that the relative size of the industry research base in the UK, Germany, France, Italy, the Netherlands, Belgium, Ireland and Spain, for instance, has an agglomeration effect on U.S. manufacturing FDI. Beside the relative size of the research base, the relative scale of production is a second sector-specific relative measure leading to an agglomeration effect. Agglomerations can more easily develop with bigger markets. The four largest EU economies are the four most important hosts for U.S. foreign investment (Barrell, Pain, 1999) and agglomeration is reported.

[28] Mayer, Muchielli (1998, 1999) have similar evidence for Japanese investments in Europe and Belderbos, Carree (2000) for Japanese investment in China.

[29] Contrary to what has been reported for Germany, for the period 1981-1994, the decline in the size of the UK research base has more than offset the gains from lower labour costs (Barrell, Pain, 1999).

[30] The balance between market size and relative research base against relative labour costs along the lines of Barrell, Pain (1999) is not yet tested for Eastern Europe, as far as we are aware of.

[31] We give an overview of the empirical studies that explain the ownership decision in Table 5 and the way of growth choice in Table 6.

economies to a 'firm' as a governance structure when the same transaction, planned in the context of a firm, requires lower costs than when this transaction is placed within a market exchange between two organizations ((Kreps, 1990, p.743), Williamson (1975, 1976)). One of the 'founding fathers' of transaction cost economics, Williamson[32], after Coase, suggests a three-factor paradigm by which to explain governance forms chosen. Williamson (1989) explains that transactions differ in their 1) condition of asset specificity, 2) their degree and type of uncertainty and 3) their frequency of recurrence.

The ownership decision leads to an incidence of joint ventures, (licensing), wholly owned subsidiaries (Hennart, 1994), and is a choice between either a contract or equity[33]. The 'establishment mode' decision between acquisition or green-field alias start-up entry is in both cases an equity participation, but via internal or external resources. Hence, the establishment mode is only partly explained by transaction cost theory in (Hennart, Park, 1993).

We next define the three building blocks of Williamson's three-factor paradigm, i.e. asset specificity, frequency of transaction and uncertainty, and the matching governance structures in a two-by-two matrix, applied to our problem, namely which governance structure best fits the (foreign) investment decision.

II.2.1.1. The definition and types of asset specificity and its effect on ownership choice

The essence of the effect of asset specificity is that it binds one or both sides of a transaction. An exchange in which each party has many alternative trading partners, can evolve towards an exchange in which one side has much more at risk, the reason being that it invested in a specific asset. The party that invests in the specific asset becomes more tied to and in the "power" of the other side (Kreps, 1990, p. 747). A wholly owned subsidiary is set up if it is less costly to monitor activities and enforce proprietary rights over the information within a wholly owned subsidiary than to establish a separate, but joint, venture with the (local) company. With a wholly owned subsidiary the investor owns all equity, because the markets for inputs and/or knowledge, distribution, and/or loan capital are not efficient or more expensive. Hennart[34] (1988) discusses which types of markets fail and which assets need to be transferred by a joint venture. The specific asset can be inputs, knowledge, advertising reputation or direct selling reputation or capital.

The markets for the inputs, raw materials, parts and components have different minimum efficient scales across stages. In order to homogenize scale and avoid hold-ups, joint venture will rather be an option than exchange via the spot market. With third parties, there is the risk of opportunistic renegotiations. To avoid bargaining and opportunistic behaviour, and because of the large commitment the investment, equity is used to control a venture that supplies inputs at an affordable cost.

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[32] Williamson's version of transaction cost theory based on asset specificity is not very useful to explain most cases of internalisation, which are not caused by asset specificity, but by more general causes of high market transaction costs, mostly due to high information costs. The expansion of MNEs abroad can take the form of vertical integration backward and forward, of horizontal integration due to the exploitation or acquisition of knowledge or of reputation. Only vertical integration is caused by asset specificity. Horizontal integration, both asset exploiting and asset seeking, is mostly caused by information costs (Hennart, 2000).

[33] An alternative definition is that it is the choice between absence of equity or partial or full equity participation.

[34] Hennart cites the example of tin procurement versus aluminium. Any smelter can handle tin concentrates and these are easily transportable. Hence, the spot market functions. In contrast, aluminium or bauxite refineries are custom-built and, as a consequence of that, switching costs are high. Mining and refining investments are very expensive. Second, supply of the aluminium needs to be hedged against price fluctuations. Contracts remain incomplete, since it is difficult to fix ex ante the price of bauxite over a period of time that corresponds to the life of the plant, typically 20-25 years.

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Second, knowledge[35] is another asset that risks to be sold in an inefficient market. Again, knowledge has such transactional characteristics that it is very costly to exchange, since the buyer is to a large extent uncertain about the knowledge he buys until after the transaction is made. Knowledge is often tacit and cannot be codified and, is, consequently, difficult to value in patents. The buyer of tacit knowledge does not know what he is buying and will try to get better terms. The seller of tacit knowledge has the incentive to provide less support than promised. Hierarchical coordination through equity guarantees support from the party that shared its knowledge. The tacit knowledge can be technical or marketing and country specific knowledge.

Third, distribution must be supported by logistic presence, creating a reputation by advertising or direct selling reputation. Investments in distribution might be very specific with low resale value in alternative uses. There are three aspects of distribution that can cause the classic contractual problems: economies of scale and scope, uncertainty and large commitments and quality control. If there are economies of scale or scope in distribution, only a few distributors are necessary. Small number conditions plus uncertainty causes opportunism. Manufacturers need equity participation in distributors to avoid the typical incomplete contract problems and costly commitments. Second, uncertainty joined with substantial investments in distribution and few distributors leaves chances for opportunistic behaviour both by the manufacturer and by the distributor in a distribution contract. Hence, the manufacturer will participate in the distributor's capital in the case of highly specific investments in distribution and high uncertainty. A third reason is quality control. Because it might be difficult to the buyer to judge the quality of the product, it can be trademarked. Trade marking creates interdependence among distributors, but also an incentive to free riding by reducing quality offered to the detriment of other distributors of the trademarked good. The higher the number of contractual stipulations that would be needed to guarantee quality, the higher the incentive for the manufacturer is to own the distributor in order to avoid opportunism.

A fourth market is the capital market. The lender protects itself against opportunistic behaviour by the borrower by asking collateral or stringent monitoring of spending by the borrower. Hierarchical equity control improves the information content the lender gets. Young firms, for example, in risky R&D projects will find it difficult to show collateral and are difficult to monitor. In this case, a joint venture is the most common formation. This will lead to joint venture formation. Internal financing is difficult, as is financing through the capital market.

Fifth, a local joint venture partner might be needed to contribute the country-specific local knowledge of the host country. This can encompass access to local networks as well. This knowledge can be difficult to acquire through contracts. Partial equity might allay xenophobic reactions if one of the markets for crucial intermediate goods of one of the previous types is inefficient because of high transaction costs.

II.2.1.2. The definition and types of uncertainty and its effect on ownership choice

Transaction cost analysis shows that the combination of incomplete contracting as a result of uncertainty (with the potential results of moral hazard and opportunistic behaviour) and asset specificity leads to idiosyncratic trading hazard.

Just like asset specificity, uncertainty in transaction economics encompasses different aspects. There are different types of uncertainty. Uncertainty[36] falls down into primary state contingent

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[35] The knowledge can be complementary or there can be economies of scale in knowledge. Link joint ventures can 'link' different types of knowledge. Scale joint ventures pool similar types of knowledge.

[36] Once again, we refer to Williamson's analysis of uncertainty (1989) that is based on Koopmans' (1957) analysis. The role uncertainty plays in transaction cost frameworks has more to do with the language of governance than with its meaning in statistical decision theory.

uncertainty and secondary uncertainty. Within secondary uncertainty, Williamson (1989, p. 143) distinguishes between non-strategic uncertainty, and strategic or behavioural uncertainty. The firm faces all three types of uncertainty that we define now[37].

Primary uncertainty is state contingent uncertainty that ensues from "random acts of nature and unpredictable changes in consumers' preferences" (Koopmans). By definition, this type of uncertainty is not a consequence of a lack of information. It is impossible to get this information. One might define it as environmental or external uncertainty that results from the variability of demand, cost evolutions, etc. that influence the functioning of the firm. Secondary non-strategic uncertainty arises "from a lack of timely communication, that is from one decision maker having no way of finding out the concurrent decisions and plans made by others". No reference is made, however, to strategic nondisclosure, disguise, or distortion of information in the definition of this non-strategic type of uncertainty. The firm can only base its decisions on its own experience, not knowing the qualities and future behaviour by others. Third, behavioural uncertainty or strategic uncertainty also follows from a lack of information (Koopmans (1957) cited by Williamson (1989)). This type of uncertainty, however, is not non-strategic. When parties are bilaterally dependent, but are not well informed about their competitor's future behaviour, strategic uncertainty is high.

II.2.1.3. The definition of frequency of transaction - the extended interpretation given to frequency of transaction between the parties and its effect on the entry mode choice

The third aspect that affects entry mode is the frequency of transaction. Frequency of transaction does not refer to the absolute magnitude of its costs, as is the case with asset specificity and uncertainty. Rather, it has to do with relative cost differences for various means of dealing with the same transaction. The cost of setting up a specialized governance structure for a transaction between parties can be amortised over different transactions and a specialised governance structure is set up. On the contrary, when the transaction is a one-time-only transaction or when it recurs infrequently, it is more costly to put into place specialised governance structures. In practice, a general-purpose governance structure will be put into place that is less than ideally tuned to the specific transaction, but is less costly. If the (foreign) investor invests frequently, it builds up international or regional experience. The reason is that the (foreign) investor frequently repeats similar transactions and both parties carry an overall reputation of their investment behaviour.

II.2.2. A transaction cost explanation for foreign direct investment – the ownership choice

Using the building blocks of transaction cost economics, we now match transactions to governance structures, to ownership and way of growth decisions. The scheme by Kreps (1990) shows the effect of the interaction[38] of asset specificity and frequency of transaction in II.2.2.1.

II.2.2.1. The interaction of asset specificity and frequency of transaction and the choice between joint venture and wholly owned subsidiary

Figure 9 (Kreps, 1990) shows how the choice between equity joint ventures and full equity wholly owned subsidiaries matches combinations of asset specificity and frequency of transaction, although it is only completely clear-cut in the case of rare transactions and intermediate specific assets on the one hand and frequent transactions with highly specialized assets on the other hand.

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[37] This very initial typology of transactional uncertainty will be used in the development of the empirical model (Chapter IV.)

[38] Asset specificity, uncertainty and frequency determine the ownership choice and the establishment mode. We will not show pair-wise combinations of all three variables.

Figure 9: Asset specificity and frequency of transaction to explain equity ownership (joint venture – wholly owned subsidiary)

	rare	frequent
highly specific	trilateral or unified: equity joint venture or wholly owned subsidiary	unified: wholly owned subsidiary
of intermediate specificity	trilateral : equity joint venture	bilateral contract (possibly hierarchical if frequent for one party)
non-specific	sequence of short-term classical contracts/ NO FDI	

degree of asset specificity (vertical axis)

HIERARCHY

MARKET

frequency of transaction

source: Kreps (1990)

When assets have intermediate specificity[39], bilateral or trilateral contracts such as equity joint ventures can be the outcome. Asset specificity has three consequences (Kreps, 1990). The costs of relational contracting rise. Each party has more at risk, and therefore must engage in an increasing amount of pre-transaction planning, monitoring while the transaction is in process, and post-transaction enforcement. Equity investment solves the 'hold up problem'. The motivation for a firm to do a relationship-specific investment is attributable to incomplete contracting and potential hold-ups[40].

In the case of intermediate specific assets[41], an equity joint venture might come into play in case the interaction between the parties is rare[42]. Arbitration is possible, with court, for example, as a third party[43] that acts with discretion. The venture contract prescribes a third party that will determine appropriate damages/adaptation, according to some specified procedure. In case of frequent transactions between the parties (or a reputation of similar transactions with similar parties), a bilateral contract will be sufficient. Among the bilateral contracts, hierarchical ones are one extreme form. In that case, one of the two parties retains, by law or by custom, most of the authority to determine how the contract will be fulfilled. This could be a majority joint venture. The first party is, up to some limits, the hierarchical superior who determines how matters will proceed. When that party to the transaction takes command of the assets of the second party, effectively internalising the transaction, a

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[39] We drop the case of non-specific assets, since there is no FDI then.

[40] The essential version of the hold-up problem by Klein, Crawford, Alchian (1978) is told as follows (Holström, Roberts (1998)). One party must make an investment to transact with the other. This investment is relation-specific, which means that its value is lower, or even zero, in any use other than supporting the transaction between the two parties. Moreover, contracts are due to be incomplete. They cannot cover all possible issues that might arise in carrying out the transaction and could affect the sharing of the returns from the investment, i.e. contracts are incomplete. Ownership, or equity investment, solves this problem.

[41] From now on, we make only the distinction between intermediately specific and highly specific assets and drop the case of absence of specific assets.

[42] Hennart (1988) argues that joint ventures do not occur when interactions are more rare than in the case of wholly owned affiliates. Also, he does not see any evidence that joint ventures do not occur when interactions involve intermediate specificity. Joint ventures are just joint internalisation, i.e. two or more holders of assets need to combine them but find that combining them through contracts would incur too high transaction costs.

[43] Since our interest is to determine the determinants of joint or single venturing, the governance mechanism between the venture partners (trilateral or bilateral venture contracts) is beyond the scope of our investigation and, not explained here.

unified governance structure results. Ownership implies control according to common practice. In a wholly owned subsidiary, this is precisely what happens. If frequency of interaction is rare, an equity joint venture is more likely and both control and ownership are shared.

In the case of highly specific assets and a high frequency of interaction between the parties of the transaction, the probability of full (wholly owned) equity participation that provides control is even higher. In case of less frequent transactions, equity joint venture might do. Investment incentives could be provided by an increase in ownership.

It is clear that both axes in figure 9, degree of asset specificity and frequency of transaction, have an influence on the governance structure towards a higher degree of ownership. Two assumptions qualify the causality between more specific assets and unified forms of governance structures, given a certain frequency of interaction (Kreps, 1990, p. 752). First, competition between the two parties is assumed not to change over time. In reality, however, competition between two parties can diminish or increase, even without the presence of specific physical assets. One party might possess more market power[44], which leads to increased ownership without necessarily more specific assets (Kreps, 1990, p.752). Second, the third dimension of transaction cost theory, uncertainty, is absent. Uncertainty prevails before, during and after the transaction[45] takes place. The effect has been described in II.2.1.2. A third axis for 'uncertainty' or 'complexity' should be added in Figure 9.

II.2.2.2. The general effect of uncertainty/opportunistic behaviour on the ownership and on the establishment mode decision

As just stated, Kreps (1990) indicates that a third axis, uncertainty or complexity, must be added, beside asset specificity and frequency of transaction in order to explain the choice of ownership. If uncertainty, or complexity, rises, it gets more difficult for the contracting parties to draw complete joint venture contracts, since many influences are not observable anymore. With this ex ante and ex post uncertainty, the contracting party will specify as little as possible, to avoid high bargaining costs (Milgrom, Roberts (1992)) or increase control via an equity increase. Neither the effect of uncertainty on ownership nor the effect on the way of growth is linear.

II.2.3. The effect of transactional factors on way of growth or establishment mode

Asset specificity provides an explanation for the establishment mode or way of growth decision. Two alternative ways of growth are acquisition and green-field entry. Hennart, Reddy (1993) distinguishes three categories of entry modes: first, a joint venture, second, a buy-out or acquisition of the potential partner as a wholly owned acquisition, and, third, hiring key personnel from a local firm or competitor for a wholly owned green-field investment as a third option[46]. These entry mode choices are based on specific assets. A joint venture creates the possibility to partly use the output[47] of the previous production stage, while not being forced to sell it to the market.

Moreover, Hennart (1988) argues that buy-out and green-field entry are good alternatives for a joint venture because of another reason. Specific assets are often public goods, which means that these assets cannot be shared at low marginal cost. Therefore, joint venture is an option.

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[44] By making market power part of the concept of specific assets, it can be explained within the framework developed.

[45] This leads to moral hazard.

[46] Remark that Hennart (1988) does not offer the option of a joint venture green-field but supposes that all joint ventures are acquisitions. In the analysis of Chapter V this distinction is made.

[47] This output is jointly used with the upstream party.

Hence, the following conditions are formulated as decisive for the way of growth choice (Hennart, 1988). If replication or imitation of the specific assets is not so expensive, green-field entry is chosen. If, on the contrary, replication or imitation of the specific assets is more expensive than acquisition of these public goods, acquisition or buy-out is chosen. A buy-out with full equity participation (a wholly owned acquisition) will be avoided when the acquirer gets also assets in unrelated fields or increases its size, because this causes controlling and governance problems. Finally, a joint venture will be chosen if the specific assets are only a part of total assets held by the partner.

Finally, acquisition is chosen if complementary inputs are needed, such as general knowledge of the local economy in case of a lack of local experience. If a new product market is entered, i.e. if the entry is diversification, acquisition is needed to acquire product-specific knowledge. Another firm-specific advantage that the foreign investor can successfully combine with a foreign acquisition is marketing knowledge. Diversified firms might have the advantage of having sophisticated management control systems and therefore the possibility to enter via acquisition.

II.3. THEORY OF INCOMPLETE CONTRACTS AND THE PROPERTY RIGHTS VIEW OF ENTRY MODE

Grossman, Hart (1986) explain the determinants of how vertically or laterally integrated the activities of a firm are. The firm is defined as being composed of the assets it owns. Integration changes the party who has control over those provisions not included in the contract. Contractual rights can, namely, be of two types: specific rights and residual rights. When it is too costly for one party to specify a long list of the particular rights it desires over another party's assets (specific rights), it may be optimal to purchase all the rights except those specifically mentioned in the contract. Ownership is the purchase of these residual rights of control of all aspects of assets that are not included in the contract ex ante. A higher share of ownership must be given to the party of the transaction that has the greatest ex-post bargaining power over the division of the surplus.

This can also change over time. Antras (2005) shows that the relationship between entry mode (ownership choice) and timing is also explained by the theory of incomplete contracts and transaction costs. He offers an alternative explanation for the Vernon hypothesis of the product life cycle theory (1966). Most products by MNEs are produced in the North. As soon as designs are worked out and production techniques are standardized, then production is transferred to the South because of lower wages. Antras (2005) explains that incomplete contracts can be better enforced in the North than in the South where there is a high cost of incomplete contracts. If the product is new and maturity is low, production is not shifted to the South because the cost of incomplete contracts is higher than the low labour cost advantage in the South. The residual rights of control remain with the MNE that contributes most to the value of the relationship. The transfer is made internally through a wholly owned subsidiary within the MNE. When the product becomes mature, it is not necessary anymore for the MNE to keep the residual rights of control for itself, because its contribution of designs and production techniques has diminished. It gives away residual rights of control through subcontracting or licensing in the South.

In certain publications this application of negotiation between the investor and its partner is referred to as bargaining theory. Bargaining theory models the equity share as the outcome of a bargaining game between the multinational enterprise and the local partner(s), or the local government (Svejnar, Smith (1984)). The equity share in the venture is determined by the bargaining power of the parties. In case of bargaining with the host government, the bargaining power of the MNE is typically assumed to increase with the benefits that the MNE brings to the host country, such as assets and exports. On the other hand, it is assumed to decrease with the attractiveness of the host country's

internal market that is beneficial to the potential partner. The attractiveness of the internal market depends on market size, market growth, cost-effectiveness of labour and the quality of local infrastructure.

II.4. RESOURCE BASED VIEW AND ORGANIZATIONAL LEARNING PERSPECTIVE OF ENTRY MODE

The choice of entry mode in the resource-based view reflects a need to devise supporting organizational structures and complementary organizational capabilities that enable the efficient exploitation and exploration of competitive advantages at home and abroad (Chang, Rosenzweig, 2001). With regard to the choice between acquisition and green-field investment, resource-based theory stresses the distinction between exploiting existing resources[48] and acquiring new ones. Based on the theory of learning, other explanations are given. When firms seek to exploit their superior organizational and technical expertise, they often prefer green-field entry (Barkema et al., 1998) as a way to install their managerial practices from scratch. Acquiring an existing firm would have little advantage, since this company would have relatively little to offer in terms of technological expertise (Barkema, Vermeulen, 1998) for the acquirer and equipped with the necessary expertise. This is explained from an organizational learning perspective. Experience is a prime source of learning in organizations (Penrose, 1959). It works like a vicious circle, because global experience of a multinational enterprise leads again to a richer knowledge structure. The effect is also gradual, since firms tend to build laterally on what they got (Teece, Rumelt, Dosi, Winter (1994)). When, on the contrary, firms enter foreign markets to acquire general knowledge of the local economy or product-specific knowledge that resides in local firms, this may be best accomplished through acquisition.

Internationalisation is seen as a way to leverage under-utilized productive resources to new business opportunities abroad in case they are under-exploited at home. In the internationalisation literature the frequency of interaction between parties appears in the stage theory (Johanson, Widersheim-Paul (1975), Johanson, Vahlne (1977, 1990), Fina, Rugman (1996)). The sequential pattern in internationalisation is explained by the gradual acquisition of knowledge about foreign markets.

II.5. GLOBAL STRATEGIC DETERMINANTS OF ENTRY MODE

A final contribution by strategic management scholars to the entry timing (and mode) literature, is that international strategy matters (Hill, Hwang, Kim (1990) for the ownership decision, Harzing (2002) for the establishment mode decision). Transaction cost economics' treatment of entry mode concentrates on long-term or structural efficiency at the individual entrant or subsidiary level as the criterion for an appropriate foreign entry mode choice. This approach tends to ignore strategic considerations, it is argued. Because transaction cost economics assumes imperfect competition (Robins, 1987), there is, however, a useful extension possible when one takes into account that the decision is not made in isolation. The global strategy literature emphasizes that the final objective of multinationals is overall corporate success and efficiency and not the maximization of the individual subsidiary unit's efficiency. Kim, Hwang (1992) show that the strategic relationship between the multinationals' international operations influences its foreign entry mode decision. Global concentration, global synergies and global strategic motivations favour high control entry modes.

The global strategic motivation refers to the typology of Bartlett, Ghoshal (1989) who distinguish between multinational companies that pursue a multi-domestic strategy and those that

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[48] Resources are tangible or intangible assets, and organizational capabilities.

pursue a global strategy. If the investment is 'local for global' the aim is global synergy seeking and maintaining international competition in an oligopoly setting. This is then contrasted to a 'local for local' strategy where production is meant for the local market. If a global strategy is pursued, wholly owned subsidiaries are preferred to joint ownership (Hill, Hwang, Kim (1990)). Harzing (2002) show that acquisitions are more likely for multi-domestic companies and green-fields more likely for global companies. The type of strategy explains way of growth.

II.6. REAL OPTIONS THEORY AND INVESTMENT ENTRY MODE

The financial economics theory on the timing of the investment decision uses a different definition of uncertainty than is common in transaction cost economics[49]. The real options or threshold approach (Lint, Pennings (1999)) qualifies the assumption of the transaction costs approach that competition between two contractual parties does not change with time (Kreps, 1990, p. 752). Second, the effect of the irreversibility of committed specific assets on the choice of transaction is analysed. Whereas the application to timing of entry decisions has become standard (Dixit, Pindyck (1994)), the repercussion on entry mode decisions is more novel and not often evaluated empirically (Rivoli, Salorio (1996), Chi, McGuire (1996), McGrath (1997)), as a response to suggestions by Buckley, Casson (1981). The financial economics perspective is briefly summarized in this section.

Isobe, Makino, Montgomery (2000) argue that the entry timing decision is a balance of the financial investment risk of investing in a region (as captured by transaction cost reasoning[50]) against the strategic risk[51] of not investing and losing an opportunity. In the financial investment literature, the microeconomic analysis of the investment decision draws on another paradigm, that of real options.

Dixit, Pindyck (1994) and Kogut (1991) introduced the use of option analysis to analyse (real) market entry decisions. Miller, Folta (2002) integrate transaction cost and option theory for the explanation of the timing of entry. Optimal timing for exercising real options depends on current dividends, the possibility of pre-emption and whether the option is proprietary or shared, simple or compound.

Traditional investment theory relies on the net present value rule. A firm should undertake any investment with a positive net present value. Dixit, Pindyck (1994) show that, under assumptions of uncertainty and irreversibility, a decision to wait can also be logically part of a value-maximizing investment decision. Modern 'options' intuition shows that this value of waiting is due to the fact that information is incomplete and supposed to become more complete by waiting. When the investment rule calls for inaction, a firm may reconsider investment at a later stage and become an early or later follower in its industry, but cannot be a first mover anymore. The investment decision is a choice to incur a sunk cost (because investment is to a certain extent irreversible), and that choice yields uncertain future payoffs. Because of the option to delay investment, the firm should invest only if the ratio of the market valuation of capital to its replacement cost exceeds 1 by a margin that is sufficient to compensate the firm for the loss of the option to delay[52].

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[49] Slater, Spencer (2000) argues that every aspect of timing is not present in Williamson's analysis. Continuous agency adaptations are necessary due to uncertainty.

[50] The type of uncertainty in transaction cost economics in II.2.2.2. is the transaction cost economics definition of uncertainty, i.e. contingencies that can be predicted with a certain probability. Primary uncertainty depends on the probability of changes in nature and demand changes. It is assumed that it can be predicted with certain probabilities. Secondary non-strategic uncertainty and strategic uncertainty can be predicted with certain probabilities.

[51] Recall that Isobe et al. (2000) see the argument to delay investment as strategic risk. Real options theory introduces real uncertainty. Imperfect information and the inability to disclose the situation by estimating with certain probabilities is a different concept.

[52] See Appendix II.2. for a derivation of the optimal investment trigger for a very specific case.

There is some controversy within the irreversible investment literature concerning the effect of uncertainty on accumulated investment. Dixit, Pindyck (1994) find that the irreversibility of investment creates a higher user cost for capital, and this leads to lower[53] investment compared to firms for which the investment is not/less irreversible. Using the particular Brownian motion form, their calculation of the expected long-run average change in the log of the capital stock (i.e. accumulated investment) results in the finding that greater uncertainty leads to a lower long run average growth of the capital stock. In the model of Dixit, Pindyck (1994) uncertainty increases the delaying effect of irreversibility on investment. On the contrary, uncertainty in the Abel, Eberly (1995) model decreases the investment delay due to irreversibility. The Abel, Dixit, Eberly, Pindyck (1996) model is a summary of both visions confirming the co-existence of a real option to delay investment and reverse an increase of investment as a consequence of uncertainty. It shows the ambiguous effect of uncertainty on investment.

Both the size and the scale of entry/adoption behaviour are determined by uncertainty and by the irreversibility of the investment. The traditional agenda of the modelling of multinational enterprise as in Caves (1996) evaluates each entry strategy in terms of its immediate effects rather than in terms of the new opportunities to which it may ultimately lead (Buckley, Casson, 1998). The new agenda tries to integrate option theory. We provide a short overview of applications of the concept of the valuation of a call option in international investment theory. Some focus on multinationality as endowing production options. de Meza, van der Ploeg (1987), Kogut, Kulatilaka (1994) recognize that pioneering international investment leads to scaling up. In that case, option theory explains incremental investment choices.

Research mentioned so far concentrates on the effect of uncertainty and irreversibility on the order of entry. Rivoli, Salorio (1996) show that, in case of uncertainty, delayability and irreversibility might reverse the effect of transactional (ownership and internalisation) variables on the timing of entry. The more delay-able and the less reversible the investment is, the more likely it is that the value of waiting exceeds the value of early investment. On top of that, these authors argue that this might also provide insights for research on the choice of entry mode, though the argumentation is still preliminary.

A limitation of a part of the literature that explains foreign direct investment is its treatment of uncertainty. Existing transaction cost economics suggests that high uncertainty will lead to transactional market failure, increasing the likelihood of modes with high commitment investment (Vernon (1983), Dunning (1988)). The traditional eclectic paradigm of Dunning to explain foreign direct investment does not hold under uncertainty. Uncertainty can be treated as endogenous or exogenous. If it is endogenous, it is influenced by the investment itself. Uncertainty is typically treated as endogenous, to be resolved by the investment, e.g. in Casson (1994). By investment and the resolution of uncertainty, some experiential learning happens (Kogut (1983)). Uncertainty can be treated as a platform to obtain rights to future investment, to stay flexible, as argued by Kogut, Kulatilaka (1994). Rivoli, Salorio (1996), however, treat uncertainty as exogenous and resolvable only with the passage of time. This is a specific assumption.

Chi, McGuire (1996) integrate the transaction cost and the options perspectives to explain market entry modes: joint ventures, acquisitions and green-field investments abroad. They derive the

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[53] Abel, Eberly (1995) consider the opposing 'hangover' effect. In their view a firm that cannot disinvest because of the irreversible nature of its investment will have more accumulated capital from times when demand was low. The irreversibility constraint prevents the firm from reducing capital stock. So, the opposite 'hangover' effect means that irreversibility leads to higher instead of lower investment. Abel, Eberly (1995) also argue that irreversibility limits the freedom of a potential investor, but show that uncertainty leads, contrasting to the results by Dixit, Pindyck (1994), to less instead of more delay of investment.

conditions under which the option to acquire and the option to sell out generate positive economic value for both of the partners of a collaborative joint venture. Partners enter into an explicit buyout option because they expect that the partners' valuations of the shared option might diverge at some point in the future. Kogut (1991) analyses a joint venture as a strategic option to acquire and expand in response to favourable market and technological developments. Unexpected growth in the product market increases the likelihood of acquisition. Unexpected shortfalls in the product market, on the other hand, have no effect on the likelihood of dissolution.

II.8. SUMMARY OF THE DETERMINANTS OF ENTRY MODE

II.8.1. Summary of the literature on ownership choice

Results based on alternative theoretical frameworks are presented, to the extent that the constructs can be compared.

Table 5: Overview of the theoretical concepts on which the ownership decision is based

	theory	concept of the firm	joint venture	wholly owned subsidiary
I.	neoclassical theory: scale	production center	-	-
II.	transaction cost economics	hierarchy	low asset specificity	high asset specificity
III.	incomplete contracts and property rights view of the firm	owner of assets	low residual rights of control	high residual rights of control
IV.	resource-based theory	unique bundle of resources	-	-
V.	global strategy: multidomestic vs. global	strategic player	low resource commitment for multidomestic	high resource commitment for global
VI.A.	economics of uncertainty: reversibility	optimiser of value over time	medium reversibility	low reversibility
VI.B.	economics of uncertainty: option value	optimiser of value over time	high option value	low option value

source: summary of II.1.-II.6

Table 6: A selected overview of empirical studies of determinants of the ownership choice[1]

variables	measurements if several	sign	references	opposite sign	references	references in which case not significant
R&D intensity		-	Kogut, Singh (1988) for Japanese subsample;Mutinelli, Piscitello (1998);Gomes-Casseres (1989)	+	Gattignon, Anderson (1988);Padmanabhan, Cho (1996);Gomes-Casseres (1990)	Stopford, Wells (1972);Davidson, McFetridge (1985);Hennart (Mgt.Sc. 1991);Hennart, Larimo (1998);
advertising intensity				+	Gattignon, Anderson (1988);Padmanabhan, Cho (1996);Gomes-Casseres (1989);Gomes-Casseres (1990)	Kogut, Singh (1988)
experience	prior international experience (firm multinationality,year of first foreign venture)	-	Davidson, McFetridge (1985); Stopford,Wells (1972)	+	Erramilli curvilinear (1991);Gatignon, Anderson(1988);Kogut, Singh (1988);Padmanabhan, Cho (1996);Mutinelli, Piscitello (1998)	Padmanabhan, Cho (1999)
	prior local experience			+	Hennart (1991);Gomes-Casseres (1989)	Hennart, Larimo (1998); Padmanabhan, Cho (1999)
non-strategic operational uncertainty	cultural distance	-	Stopford, Wells (1972), Erramilli (1991),Gatignon, Anderson (1988),Padmanabhan, Cho (1996)			Tihanyi, Griffith, Russell (2005)
strategic uncertainty: contractual	cfr. prior operational experience =+-corruption			+	Smarzynska, Wei (2000)	

[1]*+ = increased probability of wholly owned subsidiaries*

II.8.2. Summary of the literature on establishment mode choice

Table 7: A selected overview of empirical studies on establishment modes – classification according to theoretical framework and method

study	theoretical framework	home country	host country	sample size	windows of analysis	method
Caves, Mehra (1986)	transaction cost theory, agency theory, oligopolistic rivalry	various	U.S.	138	1974-1980	binomial probit
Kogut, Singh (1988)	transaction cost theory, cultural factor	various	U.S.	228	1981-1985	multinomial logit
Zejan (1990)	transaction cost theory	Sweden	various	250	1969-1978	binomial probit
Hennart, Park (1993)	transaction cost theory, mergers & acquisitions theory, theory of the growth of the firm, theory or capital market imperfections	Japan	U.S.	270	1978-1980 and 1984-1987	binomial logit
Andersson, Svensson (1994)	organisational learning	Sweden	various	+-1000	1961-1990	binomial logit
Cho, Padabmanabhan (1995)	transaction cost theory	Japan	various	756	1969-1991	binomial logit
Barkema, Vermeulen (1998)	organisational learning	the Netherlands	various	829	1966-1994	binomial logit
Padmanabhan, Cho (1999)	organisational learning	Japan	various	752	1969-1991	binomial logit
Brouthers, Brouthers (2000)	transaction cost theory, institutional theory	Japan	various	136	1981-	binomial logit
Chang, Rosenzweig (2001)	transaction cost theory, organisational learning	various	U.S.	119	1975-1992	multinomial logit
Harzing (2002)	oligopolistic rivalry, strategy	multinationals	various	287	mid 1990s	binomial logit

Table 8: A selected overview of the literature on establishment modes (+ higher likelihood of green-field, - higher likelihood of acquisitions)

study	Caves, Mehra (1986)	Kogut, Singh (1988)	Zejan (1990)	Hennart, Park (1993)	Andersson, Svensson (1994)	Cho, Padmanabhan (1995)	Barkema, Vermeulen (1998)	Padmanabhan, Cho (1999)	Brouthers, Brouthers (2000)	Chang, Rosenzweig (2001)	Harzing (2002)
firm-level											
international experience	-	ns	ns	na	-	ns	+	+	+	+	+
host country experience	na	ns	na	ns	-	ns	-	ns	na	na	na
typical domestic market share	na	na	na	na	na	ns	na	ns	na	na	na
firm size	na	+			-	ns	ns	ns	-	ns	na
R&D intensity	na	na		+	+	+	na	+	+	na	+
advertising intensity	na	na	na	ns	na	na	na	na	na	na	na
industry -level											
industry growth	curvilinear	na	+	curvilinear	na	na	na	na	+	+	na
variability of industry growth	-	na	ns	-	na	na	na	na	na	na	na
industry concentration	-	na	na	ns	na	na	na	na	na	na	na
industry R&D intensity	ns	+	na	na	na	na	na	na	na	na	na
industry advertising intensity	ns	ns	na	na	na	na	na	na	na	na	na
country-level											
host country size	na	na	ns	na	na	na	ns	na	na	na	na
host country growth rate	na	na	na	na	ns	na	ns	na	na	na	na
cultural distance	na	+	na	na	na	ns	+	ns	ns	+	+
host-country risk	na	na	na	na	na	na	+	na	na	na	na

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APPENDIX 1.1.

Table 9: Comparison of the two branches of the investment literature: adjustment costs and real options

	Adjustment costs' literature	**Real options literature**
seminal paper	Hartman (1972), Abel (1983)	Arrow (1968), Pindyck (1988), Dixit, Pindyck (1994)
irreversibility	= obstacle to disinvest	=higher user cost of capital
focus	scale of investment	timing of investment
disadvantage	abstracts from timing	abstracts from scale
	profits are convex in prices	irreversibility --> ability to delay investment
	and operating costs	confers on the firm a call option over future income
		stream from proposed real asset
		effect 2 of uncertainty: combination with irreversibility ((McDonald,
net effect of uncertainty on profits	effect 1 of uncertainty: uncertainty increases expected profits	Siegel (1986), Dixit, Pindyck (1994))
net effect of uncertainty on rate of return	raises rate of return	-
net effect of uncertainty on the value of investment	raises the value of investment	decreases the value of investment or delay *until expected return*
		compensates for cost of capital plus opportunity cost of 'killing'
		the delay option
effect of irreversibility	Abel, Eberly (1995) : irreversibility --> more investment	Dixit, Pindyck (1994) : irreversilibity --> less investment
		uncertainty --> increase in investment
		uncertainty --> defer investment

APPENDIX 1.2

Derivation of the optimal investment trigger with, for instance, demand, wage and productivity uncertainty – based on Bertola, Caballero (1994)

There are two effects of uncertainty on the relationship between irreversibility and the expected path of the marginal revenue product (MRP) of the capital invested. A first effect of uncertainty goes through the effect of the firm's current investment on the path of the firm's MRP of capital. Second, there is an effect through the competitors' investment on the path of firm's MRP of capital, i.e. the possibility of entry by competitors in the future also affects the expected return of entry.

Caballero (1991) shows that, under constant returns to scale, the first effect decreases when the price elasticity of the firm's demand is more elastic, as long as uncertainty is FIRM SPECIFIC. But INDUSTRY LEVEL uncertainty also affects industry investment and output in a competitive equilibrium. But, once one allows for entry of new firms or the expansion of existing ones, the effect of irreversibility will be the same on industry level investment, as one would have with a monopolist (He, Pindyck (1992)). The reason for this is that irreversibility AND the possibility of entry by other firms affect the distribution of MRP seen by the firm.

Real options Model based on Bertola, Caballero (1994):

The key features are: (1) the investment is irreversible; i.e. gross investment can not be negative; (2) the production function is Cobb-Douglas; (3) the firm faces a constant elasticity demand function; (4) uncertainty arises since a demand curve shifter, the wage rate, and productivity are stochastic.

The determination of the investment trigger point

The production function is Cobb-Douglas:
(1) $$Q_t = A\left[K_t^{\alpha} (L)^{1-\alpha}\right]$$
where K is capital, L is labour, a perfectly flexible production factor that can be rented at the rate w_t. A_t is a technological progress indicator.

The firm faces a constant elasticity demand function:
(2) $$P_t = D_t Q_t^{\mu-1}$$
where P_t is the product price, Q_t is output, and μ is the inverse of the mark-up factor, which indexes the firm's monopoly power. Monopoly power increases as μ goes to zero. μ equals 1 for a perfectly competitive firm.

D_t equals P_t which is the market price that the firm takes as given.

Define the operating profits function:
$$\prod(K_t, w_t, D_t) = \max_{L_t} P_t Q_t - w_t$$
s.t. (1) and (2) above. Operating profits written in reduced form are, hence equal to:

(4) $$\prod(K_t, w_t, D_t) = \frac{1}{1+\beta} K_t^{1+\beta} Z_t$$

where $\beta = \dfrac{\mu - 1}{1 - (1 - \alpha)\mu}$, $-1 < \beta < 0$

The business condition parameter Z_t can be written:

$$Z_t = f(\alpha, \mu, \beta; D_t, w_t, A_t)$$

Z_t depends positively on demand strength and productivity, and negatively on the cost of factors beside capital. Z_t is stochastic with a mean η and variance σ^2.

The firm's dynamic investment problem is:

$$V*(K_t, Z_t) = \text{Max } E_t \int_t^\infty e^{-r(\tau - t)} \left[\frac{1}{1+\beta} K_t^{1+\beta} Z_\tau d\tau - P_\tau dX_\tau \right]$$

subject to $dK_\tau = -\partial K_\tau \, d\tau + dX_\tau$

and to $dX_\tau \geq 0$

A firm invests when:

$$\frac{(K^\beta Z)}{(r + \partial - \eta)} dK = \frac{\gamma}{\gamma - 1} P dK$$

where $\dfrac{\gamma}{\gamma - 1} = f(\eta, \sigma^2)$

     For a model where investment is completely irreversible, applying the optimal investment rule would mean that a firm invests when the investment trigger is hit, i.e. when:

$$(1) \frac{MRPK}{(r + \delta - \eta)} \delta K = \omega \ P \delta \ K$$

where $\omega = f(\eta, \ \sigma^2)$[54]

$\omega =$ the option value multiple

$\eta =$ the trend growth rate of the business conditions indicator.

$\sigma^2 =$ the variance of the business conditions indicator

    r is the firm discount rate, δ is the depreciation rate, η is the trend growth rate of business conditions indicator, σ^2 is the variance of the business conditions indicator and P is the purchase price of capital. The model draws on Bertola, Caballero (1994).

$MRPK =$ the marginal revenue product of capital

$r =$ the interest rate

$\delta =$ the discount rate

The empirical model predicts that the timing of investment entry depends on uncertainty and on the cost of capital (hence the marginal revenue product MRPK or irreversibility).

(2) P (investment = 1) = Pr $(\vartheta_0 + \vartheta_1 (\frac{MRPK}{P} > h)) > \in$

with $\in = -\alpha_1 \in_1$ and

With h being an unobservable function of both the user cost of capital and the uncertainty variables that determines the option value multiple ω. ϑ_1 is supposed to be positive and significant as a test of the investment rule that a firm waits to invest until the MRPK hits an investment trigger. Investment is supposed to be undertaken when the investment trigger is hit.

PART TWO:
SAMPLING AND
DATA DESCRIPTION

Chapter III. Sampling and data description

In order to test the theoretical model on entry mode and entry order (Chapter IV), novel data are used. The research approach required the construction of a database on entry modes and timing. The opening of the Eastern and Central European region to investments in 1989 offered equal chances to EU 15 and other international entrants. The simultaneous choices of entry order and mode were, to our knowledge, not studied yet using a sample of entry into this region. Since the model is primarily developed to explain the first foreign investment entry decision, it is inadequate to analyse subsequent entries, which is, in retrospect, a strong shortcoming. Temporal variation post-entry is, hence, not taken into account in the entry mode decision (as it is in (Delios, Henisz, 2003)). The sampling procedure is explained in section III.1. and some descriptive statistics of the sample are given in part III.2.

III. 1. SAMPLING

The data were derived from an international mail survey. The companies that were sent the survey were the result of blending two databases. First, all Privatisation Agencies, investment promotion agencies, chambers of commerce, national statistical offices of a group of Eastern European countries[55] provided full lists and gradual up-dates of companies that had invested in Eastern Europe. Second, annual economic and financial data on size, performance, assets, etc…were extracted from the records of these companies from the Amadeus database (Bureau Van Dijk) for the period 1988-1996. The companies filled out the survey and follow-up interviews were undertaken during Autumn 1996 until Spring 1997 to complete the surveys.

The structured survey was sent to the CEOs, directors Central and Eastern Europe or Business Development Managers of a stratified[56] selection of 1,329 EU15 European headquarters of companies or European headquarters of American companies selected from the AMADEUS database, putative investors and putative non-investors, according to our secondary sources. Since this was a survey intended for managers across EU15 countries, we sent it out in several languages, commensurate with the preference in the country[57], or, alternatively, of the respondent and made it check for conformity by a native speaker. The industries the companies belong to defined at the NACE-3 digit level, which allows us to define competition narrowly. The sector code per company was given according to the main activity, which often means the main activity out of three codes for multi-unit businesses. We knew from the records we meanwhile up-dated from the host country Privatisation Agencies, investment promotion agencies, chambers of commerce and national statistical offices whether these companies had invested in Eastern Europe or not. Out of the 1,329 companies, 711 completed surveys

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[55] The 10 host countries that were documented consisted of Poland, Hungary, the former GDR, the Czech Republic, the Slovak Republic, Russia, Slovenia, Rumania and Bulgaria. With the exception of the Baltic Republics, Rumania and Bulgaria, Russia and Malta and Cyprus, of course, these coincide with the countries/regions that became EU members by July 2004.

[56] We stratified the sample according to company size and distribution of countries of origin in the FDI average inflow in the CEECs over the period 1989-1995. Here, we recognise the shortcoming that FDI balance of payment sources do not exactly reflect incoming FDI, since additional investments cannot be separated from initial investments in equipment. Size was chosen to avoid a bias in favour of large enterprises. Enterprises selected, however, have a staff of 50 employees at least since this is the selection in the Amadeus data set.

[57] English questionnaires (for Belgium, the Netherlands, Greece, the UK, Ireland, Denmark, Sweden, and Finland), a French version (for France, Luxembourg, Belgium, Switzerland, Spain, and Portugal), a German translation (for Germany, Switzerland, and Austria) and an Italian one (for Italy and Ticino, Switzerland).

were returned, which corresponds to a response rate of 53 percent. Out of these 711 respondents, 558, equivalent to 78.5 percent, did invest in the CEECs and it was decided to continue with this group. This ratio is quite high, which leads us to conclude that investors were more likely to answer the questionnaire than were non-investors. This has some logic, since companies with no investment interest in the region by 1997 are rather unlikely to develop this interest later on, although it is not totally excluded. Also, investors at the time are more interested in getting feedback on investment appraisal in Eastern Europe. There is certainly a non-response bias among non-investors, since out of the total of 1,329 enterprises contacted, only 558 or 42 percent had both invested in the CEECs and replied to the survey.

Resulting from the insufficient representation of non-movers in the sample, we decided to limit our research to entrants[58]. The investors came from a wide spectrum of industries and services. Table 1 provides the distribution of investors according to activity.

The data gathered by the survey were the following. Enterprises were asked general questions about overall sales and foreign direct investment presence globally. Motivations for and obstacles to foreign investment in Eastern Europe were reported. Timing and amounts of investments and sales for the period 1989-1996 in the CEECs were made available for each investment. Furthermore, firms reported on entry (by direct investment only) in selected countries in Central and Eastern Europe: Bulgaria, the Czech Republic, Hungary, Poland, Rumania, Russia and the Slovak Republic. The company representatives were additionally asked to report on (the consideration of) their presence in all other countries of Central and Eastern Europe and the ex-CIS. The final part of the survey was devoted to the corporate sources of information prior to the investment decision.

The data of the total Amadeus database (Bureau Van Dijk) represents major economic activity (industry and services). The be included in this database, a company needs to fulfil at least one out of following three criteria: having a minimum of 100 employees and/or an operating revenue of at least 8 million USD and/or a minimum of total assets equal to 16 million USD. As a result of that, small companies are not represented.

There is no left censoring, since the period under consideration is 1989-1997 and companies were explicitly asked to report on that period. The investments that originate before November 1989, such as the Hungarian joint ventures that existed already since the 1980s, for instance, took place under non-market circumstances that were completely different compared to the transition period after the liberalisation. The amount of investment before 1990 was also quite limited and access to Eastern Europe was often limited to some companies with special preferential relationships with the former regime.

We were especially interested in tracing the first entrants. The sample does contain a few (first) movers that had disappeared by Spring 1997. There is no selection bias towards companies that would be still alive, the survivor bias. We were aware of the danger of not having captured the first mover of the population in the sample. For that reason, we explicitly double-checked the identification of first movers and asked every respondent to identify the first company in its industry that had entered into the region. As a result of that, we were sure to have captured the first mover[59] for each industry or service represented in the sample.

The sample is truncated, since investors that entered after Spring 1997 are not included. This is the case because neither the independent nor the dependent variables (of the entry order estimation) for those companies are observable from then onwards. The difference with censoring lies in the fact that the independent variables are non-observable as well.

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[58] The 'whether' question of the entry programme (Geroski, 1991) is not considered.

[59] In chapter V the categorisation of 'first mover', 'early follower' or 'late follower' for the respondent firms was corrected.

Tables 11, 12 and 13 summarise the number of respondents by country of origin of the headquarters, by industry and by host country of the subsidiaries.

Table 10: Number of respondents by country of origin of the headquarters

country of location of the headquarters	number of firms	percentage of firms
Australia	3	0,5%
Austria	35	6,3%
Belgium-Luxemburg	37	6,6%
Canada	15	2,7%
Denmark	13	2,3%
Finland	10	1,8%
France	57	10,2%
Germany	125	22,4%
Greece	3	0,5%
Hong-Kong, China	3	0,5%
Ireland	2	0,4%
Israel	1	0,2%
Italy	27	4,8%
Japan	6	1,1%
Korea	1	0,2%
Netherlands	30	5,4%
Norway	6	1,1%
Portugal	1	0,2%
Several	9	1,6%
South Africa	2	0,4%
Spain	1	0,2%
Sweden	29	5,2%
Switzerland	14	2,5%
Turkey	2	0,4%
UK	29	5,2%
USA	97	17,4%
Total	558	100,0%

Table 11: Number of respondents by type of activity (industry, service) (NACE Rec.1 code)

	NACE Rev.1 code	number of firms	percentage of firms
MINING	10 thro'14	14	2,5%
Food, beverages and tobacco	15+16	156	28,0%
Textiles, wearing apparel, fur & leather	17 thro' 19	15	2,7%
Wood, paper, printing and publishing	20 thro' 22	25	4,5%
Coke, petroleum, chem., rubber, plastics	23 thro' 25	55	9,9%
Other non-metallic mineral products	26	31	5,6%
Basic metals	27	13	2,3%
Fabricated metals	28	12	2,2%
Machinery, instruments & vehicles	29 thro' 35	69	12,4%
Furniture, other manufacturing n.e.c.	36	7	1,3%
ELECTRICITY, GAS AND WATER SUPPLY	40	14	2,5%
CONSTRUCTION	45	21	3,8%
SERVICES SECTOR	50 thro' 99	126	22,6%
TOTAL BUSINESS ENTERPRISE SECTOR		558	100,0%

Table 12: Number of respondents by subsidiary host country

host countries	no. of firms	percentage of firms
Poland	257	46,1%
Hungary	190	34,1%
Former GDR	9	1,6%
Czech Republic	47	8,4%
Russia	13	2,3%
Slovak Republic	7	1,3%
Rumania	22	3,9%
Slovenia	5	0,9%
Bulgaria	8	1,4%
total	558	100,0%

It is impossible to find out whether the entry mode distribution of the sample is representative for the population of foreign investment entry as a whole. As mentioned earlier (I.2.1.0.) FDI statistics are no good proxy for the establishment mode distribution in the whole population. It is argued that the lion's share of measured investment is purchases of existing firms (i.e. acquisitions) and retained earnings within such firms (CESIfo (2005)). As cited earlier (I.4.2.2.) Sinn, Wiedenreicher (1997) refer to the speed, lower investment costs, lower administrative hurdles and the abundance of assets that stimulated foreign investors to participate in privatisation of Eastern European companies. Ownership data for inflowing FDI in CEE companies are not available with statistical offices and investment promotion agencies in the CEECs and elsewhere. Entry mode data are, for the time being, typically collected on a micro level and analysed at this level.

III.2. THE PATTERN OF INVESTMENT: DATA DESCRIPTION

III.2.1. Entry mode patterns of the sample

To ascertain the entry mode – wholly owned subsidiary vs. joint venture on the one hand and green-field vs. acquisition on the other, respondents were offered a choice among the following alternatives: green-field operation, acquisition with minority stake, acquisition with majority holding, joint venture incorporating certain existing operations, joint venture with a new entity, sales subsidiary and other type of investment, in order to have an appropriate entry mode answer. We show the dispersion of entry mode choices across industries (Figure 10) and across countries of origin (Figure 11). We want to explore whether entry modes are typical of industry and country of origin of the investor.

Figure 10: Industry position according to the two dimensions: establishment mode and ownership equity in the CEECs (sample of 558 companies)
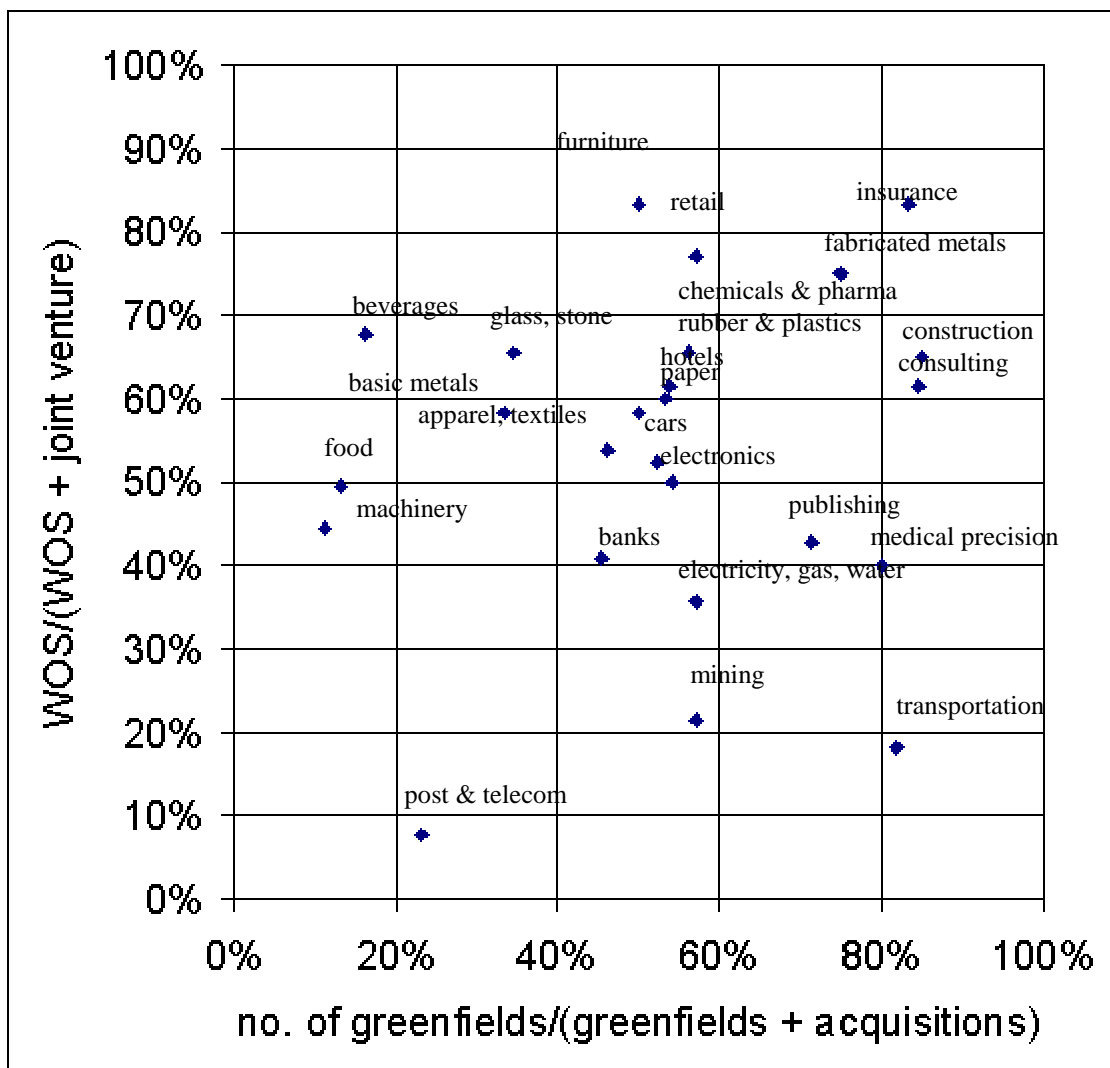
In Figure 10 each industry is represented in relation to the two axes. The x-axis represents the relative percentage of green-field investments out of total investments in the sample. The y-axis represents the relative percentage of wholly owned subsidiaries out of total investments. In the same way, Figure 11 represents the countries of origin of the investors with their relative percentage of green-field investments in the sample and their relative percentage of wholly owned subsidiaries respectively. The country of origin will not be retained as an explanatory variable, but rather the cultural difference between home and host country.

Figure 11: Country of origin of the investors and entry mode (558 investors) – only more peripheral combinations
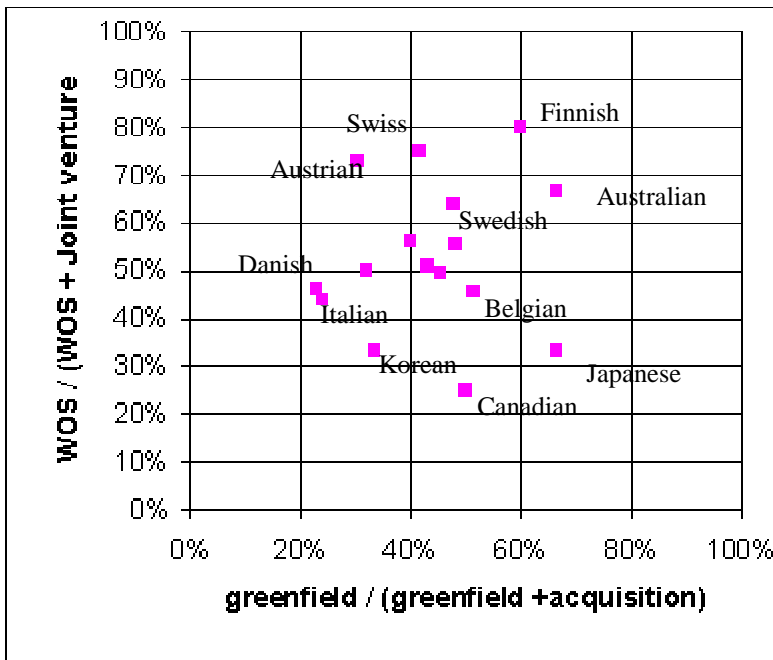
In the appendix table 14 shows the distribution of the entry modes of the sample across industries over time. Table 15 shows the distribution of the investors of the sample by industries across entry modes and Table 16 shows the distribution of the investors of the sample by industries across host countries.

The advancement in and type of privatisation programs in the host country certainly influence the investment mode, but the sample size does not allow generalisations out of it. Table 13 shows the distribution of entry modes across host countries.

Table 13: Distribution of investments according to host countries and entry mode (all 635 investment projects by the 558 investors)

Entry mode	Bulgaria	Czech Republic	East Germany	Hungary	Poland	Rumania	Russia	Slovakia	Slovenia
wholly owned green-field	2	24	6	99	118	11	9	3	2
wholly owned acquisition	4	12	3	50	64	4	3	3	2
joint venture acquisition	2	14	2	53	61	5	4	1	1
joint venture green-field	2	6	0	19	39	4	3	0	0

III.2.2. Timing of entry patterns of the sample

The sample covers the period 1989-1997. Since the year of incorporation of the first investment project in the CEECs is considered as the year of entry, it was important how it was measured. The year of the real capital expenditure for the investment project rather than the approval for capital expenditure by the Board of Directors was taken as the decisive year. The month is also available.

In line with the literature on the typology of entrants (Lieberman, Montgomery (1988), (1998), Mascarenhas (1992b)), the absolute timing of entry is not of interest, but the relative timing vis-à-vis the first mover[60]. In the Appendix, Table 14 shows the absolute timing of entry of the sample by industry.

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[60] As will be further explained in part IV on model development and measurement, discrete 'periods' of entry are defined as follows. A distinction is made between first movers, early followers and late followers.

APPENDIX

Table 14: Absolute timing of entry by industry (558 enterprises)

	Description of the sector	NACE Rev.1 code	1989	1990	1991	1992	1993	1994	1995	1996	1997	TOTAL
1	MINING	10 thro'14		2	2	4		2	4			14
2	MANUFACTURING	15 thro' 37	6	18	44	49	55	59	120	17	6	
3	Food, beverages and tobacco	15+16	1	5	28	26	31	16	38	6	5	156
4	food: meat, fish, fruit, dairy, grain	15.1 thro 15.7	1	2	9	2	4	3	16	6	5	48
5	food: bread, pastry, tea, other food	15.8		3	9	15	16	10	18			71
6	beverages	15.9			7	8	10	3	4			32
7	tobacco	16			3	1	1					5
8	Textiles, wearing apparel, fur & leather	17 thro' 19		0	1	1	2	2	8	0	0	15
9	textiles and apparel	17 thro 18			1	1	2		8			12
10	leather	19	1					2				3
11	Wood, paper, printing and publishing	20 thro' 22		4	0	1	2	7	9	0	1	25
12	wood, pulp and paper	20 thro 21		4		1			7		1	13
13	publishing	22	1				2	7	2			12
14	Coke, petroleum, chem., rubber, plastics	23 thro' 25		5	2	7	6	9	15	3	0	55
15	coke, refined petroleum, nuclear fuel	23				1						1
16	chemicals and man-made fibres	24	8	3	1	5	4	5	12	2		40
17	rubber and plastics	25		2	1	1	2	4	3	1		14
18	Other non-metallic mineral products	26										
19	non-metallic minerals (stone, clay,glass)	26	2	1	3	2	1	5	17			31
20	Basic metals	27										
21	basic metals	27				2	3	1	4	1	2	13
22	Fabricated metals	28										
23	fabricated metals	28				2	2	2	5	1		12
24	Machinery, instruments & vehicles	29 thro' 35		3	7	7	9	12	24	5	0	69
25	machinery, except electrical	29	1	1	2		1	1	5	2		13
26	electrical and optical equipment	30						1				1
27	electrical machinery and apparatus	31		2	2		4	3	1	1		13
28	radio, television and communication equipment	32				1	2	1	8			12
29	medical, precision and optical equipment	33					1	3	3	1		8
30	motor vehicles and other transport equipment	34 thro' 35	1		3	5	2	3	7	1		22
31	Furniture, other manufacturing n.e.c.	36										

	Description of the sector	NACE Rev.1 code	1989	1990	1991	1992	1993	1994	1995	1996	1997	TOTAL
32	furniture, n.e.c.	36	1		1		1	2	3			7
33	ELECTRICITY, GAS AND WATER SUPPLY	40										
34	electricity, gas and water supply	40		1	1	4	2		5		1	14
35	CONSTRUCTION	45										
36	construction	45			2	2	3	3	11			21
37	SERVICES SECTOR	50 thro' 99										
38	Wholesale and retail trade	50 thro' 52			5	2	14	10	5	1	1	39
39	wholesale, exc. motor vehicles	51			1			1	1			3
40	retail	52	1		4	2	14	9	4	1	1	36
42	hotels and restaurants	55	2	2			7	3	2			16
43	Transport and storage	60 thro' 63										
44	transportation	60	1	2			5		6			14
45	Communications	64										
46	post and telecommunications	64		1		3		5	6			15
47	Financial intermediation	65 thro' 67		4	6	1	6	3	4	4	0	28
48	financial intermediation	65		1	6		5	3	3	4		22
49	Insurance and pension funding	66		3		1	1		1			6
50	Real estate, renting, and other activities	70 thro' 74										
51	Other :consulting and engineering	74	2		2	1	8		1			14
52	TOTAL BUSINESS ENTERPRISE SECTOR											558

Table 15: Sample distribution according to entry mode by industry (NACE Rev.1) (558 enterprises)

	Description of the sector	NACE code	wholly owned green-field	wholly owned acquisition	joint venture acquisition	joint venture green-field	TOTAL
1	MINING	10 thro'14	3	0	6	5	14
	MANUFACTURING	15 thro' 37					
	Food, beverages and tobacco	15+16					
2	food: meat, fish, fruit, dairy, grain	15.1 thro 15.7	9	13	23	3	48
3	food: bread, pastry, tea, other food	15,8	9	34	23	5	71
4	beverages	15,9	10	12	9	1	32
5	tobacco	16	0	5	0	0	5
	Textiles, wearing apparel, fur & leather	17 thro' 19					
6	textiles and apparel	17 thro 18	6	1	3	2	12
7	leather	19	0	2	1	0	3
	Wood, paper, printing and publishing	20 thro' 22					
8	wood, pulp and paper	20 thro 21	4	4	2	3	13
9	publishing	22	7	1	1	3	12
	Coke, petroleum, chemicals, rubber, plastics	23 thro' 25					
10	coke, refined petroleum, nuclear fuel	23	0	0	1	0	1
11	chemicals and man-made fibres	24	22	8	5	5	40
12	rubber and plastics	25	8	1	5	0	14
	Other non-metallic mineral products	26					
13	non-metallic minerals (stone, clay,glass)	26	8	13	6	4	31
	Basic metals	27					
14	basic metals	27	4	4	4	1	13
	Fabricated metals	28					
15	fabricated metals	28	10	0	2	0	12
	Machinery, instruments & vehicles	29 thro' 35					
16	machinery, except electrical	29	4	4	4	1	13
17	electrical and optical equipment	30	0	0	1	0	1
18	electrical machinery and apparatus	31	6	3	3	1	13
19	radio, television and communication equipment	32	3	2	2	5	12

20	medical, precision and optical equipment	33	5	0	1	2	8
21	motor vehicles and other transport equipment	34 thro' 35	8	4	6	4	22
	Furniture, other manufacturing n.e.c.	36					
22	furniture, n.e.c.	36	4	2	1	0	7
	ELECTRICITY, GAS AND WATER SUPPLY	40					
23	electricity, gas and water supply	40	3	2	4	5	14
	CONSTRUCTION	45					
24	construction	45	13	1	2	5	21
25	SERVICES SECTOR	50 thro' 99					
	Wholesale and retail trade	50 thro' 52					
26	wholesale, exc. motor vehicles	51	3	0	0	0	3
27	retail	52	20	8	7	1	36
28	hotels and restaurants	55	6	4	3	3	16
	Transport and storage	60 thro' 63					
29	Transportation	60	5	0	2	7	14
30	Communications	64					
31	post and telecommunications	64	2	1	9	3	15
	Financial intermediation	65 thro' 67					
32	financial intermediation	65	7	2	10	3	22
33	Insurance and pension funding	66	4	1	0	1	6
	Real estate, renting, and other activities	70 thro' 74					
34	Other:consulting and engineering	74	8	1	1	4	14
	TOTAL BUSINESS ENTERPRISE SECTOR						558

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Table 16: Overview of all investments in the sample according to host country and industry (NACE-2 digit industry and services) (558 enterprises).

description of the sector	NACE Rev.1 code	Poland	Hungary	GDR	Czech Republic	Russia	Slovak Republic	Rumania	Slovenia	Bulgaria	TOTAL
1 MINING	10 thro'14	8	2	0	0	4	0	0	0	0	14
2 MANUFACTURING	15 thro' 37	161	138	6	35	5	6	19	5	8	383
3 Food, beverages and tobacco	15+16	59	66	0	9	1	2	10	1	8	156
4 food: meat, fish, fruit, dairy, grain	15.1 thro 15.7	19	20	0	2	0	2	3	1	1	48
5 food: bread, pastry, tea, other food	15.8	33	28	0	4	0	0	3	0	3	71
6 beverages	15.9	7	17	0	3	1	0	3	0	1	32
7 tobacco	16	0	1	0	0	0	0	1	0	3	5
8 Textiles, wearing apparel, fur & leather	17 thro' 19	5	5	0	1	0	1	1	2	0	15
9 textiles and apparel	17 thro 18	5	5	0	1	0	1	0	0	0	12
10 leather	19	0	0	0	0	0	0	1	2	0	3
11 Wood, paper, printing and publishing	20 thro' 22	11	12	1	0	0	0	1	0	0	25
12 wood, pulp and paper	20 thro 21	5	7	0	0	0	0	1	0	0	13
13 publishing	22	6	5	1	0	0	0	0	0	0	12
14 Coke, petroleum, chem., rubber, plastics	23 thro' 25	23	21	2	5	0	1	2	1	0	55
15 coke, refined petroleum, nuclear fuel	23	0	0	0	1	0	0	0	0	0	1
16 chemicals and man-made fibres	24	18	15	2	2	0	1	1	1	0	40
17 rubber and plastics	25	5	6	0	2	0	0	1	0	0	14
18 Other non-metallic mineral products	26	15	6	0	9	0	1	0	0	0	31
19 non-metallic minerals (stone, clay,glass)	26	15	6	0	9	0	1	0	0	0	31
20 Basic metals	27	4	4	1	1	1	1	1	0	0	13
21 basic metals	27	4	4	1	1	1	1	1	0	0	13
22 Fabricated metals	28	7	4	0	1	0	0	0	0	0	12
23 fabricated metals	28	7	4	0	1	0	0	0	0	0	12
24 Machinery, instruments & vehicles	29 thro' 35	35	18	2	6	3	0	4	1	0	69
25 machinery, except electrical	29	9	3	1	0	0	0	0	0	0	13
26 electrical and optical equipment	30	1	0	0	0	0	0	0	0	0	1
27 electrical machinery and apparatus	31	6	3	1	2	0	0	1	0	0	13
28 radio, television and communication equipment	32	8	1	0	1	1	0	1	0	0	12
29 medical, precision and optical equipment	33	3	3	0	1	1	0	0	0	0	8
30 motor vehicles and other transport equipment	34 thro' 35	8	8	0	2	1	0	2	1	0	22
31 Furniture, other manufacturing n.e.c.	36	2	2	0	3	0	0	0	0	0	7
32 furniture, n.e.c.	36	2	2	0	3	0	0	0	0	0	7
33 ELECTRICITY, GAS AND WATER SUPPLY	40	5	5	1	3	0	0	0	0	0	14
34 electricity, gas and water supply	40	5	5	1	3	0	0	0	0	0	14

description of the sector											
35 CONSTRUCTION	45	12	6	0	2	0	1	0	0	0	21
36 construction	45	12	6	0	2	0	1	0	0	0	21
37 SERVICES SECTOR	50 thro' 99	71	39	2	7	4	0	3	0	0	126
38 Wholesale and retail trade	50 thro' 52	25	7	2	3	0	0	2	0	0	39
39 wholesale, exc. motor vehicles	51	2	0	1	0	0	0	0	0	0	3
40 retail	52	23	7	1	3	0	0	2	0	0	36
41 Hotels and restaurants	55	7	7	0	1	0	0	1	0	0	16
42 hotels and restaurants	55	7	7	0	1	0	0	1	0	0	16
43 Transport and storage	60 thro' 63										
44 transportation	60	8	5	0	0	1	0	0	0	0	14
45 Communications	64	9	6	0	0	0	0	0	0	0	15
46 post and telecommunications	64	9	6	0	0	0	0	0	0	0	15
47 Financial intermediation	65 thro' 67										
48 financial intermediation	65	15	6	0	1	0	0	0	0	0	22
49 Insurance and pension funding	66	2	3	0	1	0	0	0	0	0	6
50 Real estate, renting, and other activities	70 thro' 74										
51 Other :consulting and engineering	74	5	5	0	1	3	0	0	0	0	14
TOTAL BUSINESS ENTERPRISE SECTOR		257	190	9	47	13	7	22	5	8	558

PART THREE:
FROM THEORY TO
THE EMPIRICAL MODEL

No more distressing moment can ever face (an organization) than that which requires it to come to a hard, fast and specific decision.

Adapted from: Barbara W. Tuchman, August 1914 (1962), Ch. 9

Chapter IV: Model development

IV.0. INTRODUCTION TO THE MODEL DEVELOPMENT FOR ENTRY MODE

This chapter leads to a model to explain the strategic investment entry mode decision. We showed that different theoretical perspectives in economics of organization and strategy tried to explain entry mode decisions (Chapter II). We saw how different theoretical perspectives in economics of organization and strategy explain entry mode decisions: transaction cost theory (II.2.), the theory of incomplete contracts and property rights (II.3), organisational learning (II.4), the global strategic posture of the firm (II.5) and the real options theory (II.6). We showed there is a partial overlap and complementarity of theories in their explanation of investment mode.

The existing literature pays less attention to the fact that the decision on entry mode and the entry order of companies into new markets might be interrelated (Pennings, Sleuwaegen, 2004). In constructing the model and making a contribution to the literature, this should be taken into account. A second requirement to make a useful contribution consists in clarifying how uncertainty about foreign profits and operating conditions plays a role in determining the investment entry mode decision. The multi-country and multi-industry sample of foreign direct investment in the early transition period in Eastern Europe offered possible grateful applications to study the impact of uncertainty on strategic entry decisions. Therefore, transactional uncertainty and the concept of real uncertainty in economics of uncertainty are considered. An attempt is made to measure these different types of uncertainty differently.

We examine whether an integrated framework can be developed for the joint consideration of ownership and establishment mode decisions combining location pull determinants, transaction specific assets, experience, uncertainty and global strategic determinants to explain entry mode in an uncertain environment.

Section IV.1. discusses the conceptual framework for an entry mode decision. Hypotheses are formulated about the type of influence of all factors in section IV.2. The measurements used to assess the constructs are discussed in section IV.3.

IV.1. THE CONCEPTUALISATION OF THE THEORETICAL MODEL FOR ENTRY MODE

In pondering the entry mode decision, managers make a trade-off between the expected benefits, expected costs and risks of the investment and try to maximize the success of the investment. They calculate benefits, costs and risk for different scenarios of entry modes. We examine four modes of entry that are a combination of joint ventures and wholly owned subsidiaries on the one hand, and of acquisition versus green-field investment on the other.

The earlier literature tried to reconcile different entry mode explanations within one single transaction cost theoretical framework (e.g. Gatignon, Anderson (1988) for the ownership decision between licensing, joint venture and wholly owned subsidiary). The explanation for the ownership decision is mostly underpinned by transaction cost theory. The establishment mode decision is mostly based on transaction cost theory, organisational learning or oligopolistic rivalry.

Later contributions combine different frameworks to explain the entry mode decision. Chi, McGuire (1996) integrates transaction cost and strategic option perspectives to explain ownership decisions. Transactional variables and real uncertainty explain joint ventures (Rivoli, Salorio (1996), Kulatilaka, Perotti (1992)). Hill, Hwang, Kim (1990) show that the ownership decision is not made in isolation but also depends upon the strategic relationship the MNC envisages between operations in

different countries. In the analysis by Dixit, Pindyck (1994)[61], the entry order of the real investment decision is determined by 1) irreversibility, two types of uncertainty, namely 2) firm-level uncertainty and by features of the decision environment, i.e. 3) the non-firm level uncertainty and 4) firm's proprietary assets (Pindyck (1988)). Since firm's proprietary assets are a major determinant of governance structures in transaction cost economics, the model could to a maximal extent possible be similar to the model explaining way of entry.

We briefly review the determinants of entry mode of each theoretical perspective[62]. Next, we try to integrate them into a joint eclectic theory of ownership and establishment mode choice.

In transaction cost theory (II.2), the value of firm specific assets and transactional uncertainty determine both ownership and way of growth choices mainly through the dissemination risk it entails. Beside, organisational learning theory (II.4) shows that the absorptive capacity shaped by multinational diversity and operational experience determines the way of growth decision. Therefore, to explain both, both views are necessary. Next, different types of uncertainty have an impact on the pay-off of the investment mode chosen: external (Williamson's primary 'state contingent') uncertainty, operational uncertainty, contractual uncertainty and competitive (Williamson's secondary strategic) uncertainty. The real options theory applied to entry mode explains that real uncertainty combined with irreversible investment leads to an investment mode that implies lower resource commitment. Finally, the contribution by Kim, Hwang (1992) pointed out that the entry mode decision is not taken in isolation. The MNC's global strategy is a major determinant of the ownership choice with the use of constructs such as global concentration, global synergies and global strategic motivations (Kim, Hwang, 1992).

Given these different theoretical streams, we fixed criteria to choose determinants for a joint framework on entry mode ownership and establishment mode decisions. First, overlap in determinants from diverging theoretical perspectives is to be avoided. Therefore, we left out operational uncertainty since it is just the opposite of operational experience. Second, determinants need to be observable. In case they are not, because of measurement problems, they are dropped. Finally, all variables are tested both on their impact on ownership choice and establishment mode choice.

Some limitations we note in beforehand. The entry mode will in this dissertation be explained historically by factors already present before entry takes place. This approach has serious methodological disadvantages, the most important weakness being that it is not capable of taking into account dynamic effects, i.e. the changes of the determinants during the investment process. It is, however, a possible way to model entry order decisions ((Mascarenhas, 1992b), (Mitchell, Shaver, Yeung (1994)).

Second, every entry mode decision is controlled for order of entry. The concept 'order of entry' is used rather than the absolute timing. A 'first mover' is defined within one and the same industry, including its incumbents and newcomers. For estimations on performance estimates[63], this makes a difference (Mitchell, 1991), since the market share of newcomers and incumbents is different, depending on whether the order is compared to all entrants or to incumbents only. To test the theory and develop the empirical model, an industry sample is adequate. Instead of looking into entry order relative to the players within a particular industry, one could also look more generally into the determinants of entry order, for instance into a new geographical market, in a cross-industry sample, controlling for industry effects. It is then possible to investigate the factors that influence the entry-

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[61] For simplicity we only compare the first mover literature with the real options approach in this chapter on model development, and not with the adjustment cost view. The causality has already been explained in Table 3 in Chapter 2.

[62] The overview is a summary of the much more elaborate overview of factors that influence entry mode that can be found in Chapter II.

[63] Whether earlier or later entry pays is reflected in performance, either market share or mortality or survival rate (Golder, Tellis, 1993, Mitchell, 1991). See Chapter II where the relevant literature is cited.

strategy decision (order and mode) whereby the clock for entry is the timing relative to the first mover in the new geographical market. The theory is the same, but the way of validating it requires using another sample.

To sum up, the joint framework for the mode of entry is motivated by balancing the strategic incentive to invest early to gain a perceived[64] competitive advantage against the incentive to remain flexible in the face of (avoiding) uncertainty (Kulatilaka, Perotti (1992), Rivoli, Salorio (1996)).

The decision about ownership is a trade-off decision between a lower control entry mode (joint venture) and a higher control entry mode (wholly owned subsidiary). Transaction-specific variables, the firm's global strategic posture, irreversibility and the value of the option explain whether a low or high control entry mode is needed (Figure 12).

Figure 12: The determinants of a low control (joint venture) and high control (wholly owned subsidiary) entry mode

	transaction-specific variables: value of transaction-specific asset	dissemination risk	global strategic variables: global concentration, global synergy, global strategic motivation	irreversibility	option value
joint venture	low	high	low	low	high
wholly owned subsidiary	high	low	high	high	low

The organisational learning construct international experience and operational experience explains the establishment mode. Since the choice between new ventures either through starting-up or via internal venturing is to a large extent determined by accumulated learning, it is a factor that is peculiar to this aspect of the entry mode decision.

Taken all the factors together without overlap, the interrelated entry mode decision is, therefore, determined by the collective, simultaneous consideration of 1) transaction-specific assets 2) experience or accumulated learning, 3) uncertainty, irreversibility and the option value and 4) the firm's global strategic posture. How transaction variables, experience, uncertainty and strategic variables influence the choice of entry mode is now explained in section IV.2.

IV.2. THE HYPOTHESES

We now identify the factors in detail that impact upon entry mode, first upon the ownership choice and subsequently upon way of growth.

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[64] Whether this advantage is also realised is another discussion. Other researchers that use a more cognitive theory would argue that the factors that motivate investment entry are a combination of characteristics of the decision maker, the external stimuli (captured here by specific assets and certain types of uncertainty), and the beliefs of managers (Ajzen (2002), Eshghi (1992)). As was explained in Chapter II 'global strategic variables' are also factors that influence the entry program, and these could originate in the managers' beliefs and the decision-maker's characteristics. It would be an extension of this research to investigate the relationship between these strategic motivations and the cognitive characteristics of the potential investors. A very limited explorative analysis to link cognitive characteristics of the investors to strategic motivations is provided in the cases of Chapter VI.

IV.2.1. The impact of specific assets on entry mode

Specific assets or their productivity effects are mobile across national boundaries. Such assets include both technical assets as well as sales-promotion assets as advertising and access to distribution.

In emerging economies it can be assumed that the purpose of the investment is not to have access to local technology[65], but to convey the investor's own tacit technology by technical staff and to commercialise it in the emerging market (Isobe, Makino, Montgomery (2000)). Specific assets have a low alternative value outside the transaction, and the benefits of internalisation through the use of a wholly owned subsidiary are greater because transaction costs of transferring tacit knowledge are lower and the firm can earn greater rents from its technology (Hennart, 1991, Buckley, Casson (1998)). It is also argued that single rather than joint venturing is a safer governance structure to avoid the dissemination of the investor's specific technological knowledge (Hill, Hwang, Kim (1990), Kogut, Singh (1988), Gomes-Casseres (1989), Mutinelli, Piscitello (1998)). Dissemination can be brought about by reverse engineering or unintended transfer of technology to a partner in foreign markets. The dissemination risk of a research joint venture[66] is higher than that of a wholly owned subsidiary. Therefore, because technological assets are difficult to transact in markets, an entry mode is required that provides more control and less dissemination risk, this suggests the proposition:

H1a: Firms with a high R&D intensity will enter new markets through wholly owned subsidiaries rather than joint ventures.

If the company's advertising and promotion knowledge is highly specific, a higher control entry mode is needed. The benefits of internalising advertising and promotion knowledge are greater because the transaction costs of transferring this tacit sales knowledge are lower and the firm can earn greater rents from its advertising and promotion knowledge in a wholly owned subsidiary (Hennart, 1991, Buckley, Casson (1998)). It is also argued that single rather than joint venturing is a safer governance structure to avoid the dissemination of the investor's specific advertising and promotion knowledge. In a wholly owned subsidiary, firms have complete control over their advertising and promotion activities, whereas in a joint venture, control is more limited. Gatignon, Anderson (1988), Tan, Erramilli, Liang (2001) demonstrate that the higher the foreign firm's advertising expenditure, the higher the level of ownership in a joint venture.

Hence, it is hypothesised that:

H2a: Firms with a high sales-promotion competence will rather enter new markets by wholly owned subsidiaries than by joint ventures.

Also based on transaction cost reasoning, the way of growth is influenced by the level and nature of specific assets. The impact on the establishment mode is, however, different for technical

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[65] If the motivation of the investment would be to obtain tacit local technology and combine it with the investor's technology, then the prediction would be that the higher the R&D intensity the higher would be the propensity to share equity in a joint venture (Kogut, Singh (1988)). The argument is that the successful commercialisation of the product requires the combination of the technology of both firms and the market for both technology inputs is subject to high transaction costs. However, another argument leads to the opposite prediction. If conflicts arise about the price of the technological knowledge and there is a risk of a spill-over of the knowledge, the prediction is that the higher the R&D intensity the higher the propensity of wholly owned subsidiaries ((Gatignon, Anderson (1988), Gomes-Casseres (1989)). Some find no significant impact of R&D intensity on the ownership decision (Hennart, Larimo (1998)).

[66] The dissemination risk of a joint venture is still minimal compared to, for instance, licensing.

and sales-promotion assets. Some firms with firm specific assets such as superior technology and expertise can exploit these abroad at low marginal cost by combining them with firm specific assets of a foreign firm. Whether these firm specific advantages can be combined with those of the foreign firm in an acquisition depends on whether they are truly embedded in the organisation or not. Superior technical competence is very tightly embedded into the foreign investor's organisation, its management system and corporate culture (Andersson, Svensson (1994)) and can therefore not be combined with an acquisition of an existing firm (Hennart, Park, 1993), (Caves, Mehra (1986)). Hennart, Park (1994), Andersson, Svensson (1994), Brouthers, Brouthers (2000) report R&D intensive firms prefer green-field entry for that reason. It can only be exploited by replicating a 'clone' of the foreign parent in the form of a green-field investment on foreign soil. Based upon these arguments, we state:

Hypothesis 1b: Firms with a high R&D intensity will rather enter new markets by green-field investment than by acquisition.

The firm specific advantages based on marketing and sales-promotion competence are, however, not embedded in the firm's labour force and can be separated from the firm. They can be combined with a going concern (Hennart, Park (1994)) and leveraged to foreign acquisitions (Kogut, Singh (1988)). Acquisitions make it possible for firms with specific marketing competence to get access to local brand names and distribution networks. Some see the characteristic more industry than firm specific and see the acquisition of local brand names as typical of consumer industries (Meyer, Estrin (1999)). Acquisition is then preferred by firms entering mature industries, where established brand names are an asset, and where differences in language and culture reduce the benefit for the foreign investor to use its own brand names in the foreign market.

Moreover, for firms whose specific asset is marketing competence speedy entry is important to take advantage of a sudden opportunity for market expansion. This can be realised through acquisition. If the investor is a consumer-oriented firm, it has the marketing skills to enter quickly and possibly acquire a local brand name. Green-field entry is much slower than acquisition of a going concern for this purpose (Caves, Mehra (1986), Hennart, Park[67] (1993), Hennart, Reddy[68] (1997), Caves (1996). Therefore, we argue:

H2b: Firms with a high sales-promotion competence will rather enter new markets by acquisition investment than by green-field investment.

IV.2.2. The impact of experience on entry mode

IV.2.2.1. International experience

There are mixed results on the relationship between international experience and the establishment mode. Strategy research demonstrates that the firm's ability to learn influences its choice of entry mode (Cohen, Levinthal, 1990). They are a result of the firm's experience in learning or absorbing knowledge in different environments. More international experience reduces uncertainty in a new geographical market (Tallman, Li (1996)). Caves, Mehra (1986) and Andersson, Svensson

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[67] Hennart, Park (1993) compares green-field investments (wholly-owned and joint ventures merged) and acquisitions and find a preference for acquisitions in the case of very slowly and very rapidly growing target industries.

[68] Hennart, Reddy (1997) compare only the two categories joint venture-green-field and wholly-owned acquisitions and find a preference for acquisition when the target industry experiences either very low or very high growth.

(1994) argue that a firm with international experience may have routinized the process of expanding through searching out and making acquisitions. Andersson, Svensson (1994) argue that MNEs holding far-flung networks of subsidiaries are prone to enter by acquisition because their coordination skills have been honed to the point where they can easily ingest the newcomer management team of an acquired subsidiary. Alternatively, firms with a lot of international experience are latecomers catching up with rivals and therefore they need speedy entry that is more guaranteed by an acquisition mode. Therefore, the hypothesis is:

H3: Firms with more international experience are more likely to enter new markets by acquisitions rather than by green-field investments.

On the other hand, it is argued that firms with international experience know how to operate in various contexts and do not need a partner firm or the acquisition of an existing firm to acquire foreign experience (Agrarwal, Ramaswami, 1992). Multinational diversity, which is a proxy for international experience, will therefore stimulate green-field entry rather than acquisition entry (Barkema, Vermeulen (1998)). Through their involvement in international markets, firms are confronted with a broader array of demand and competition characteristics (Abrahamson, Fombrun (1994), Miller, Chen (1996), Barkema, Vermeulen (1998)). These firms developed organisational skills. Some proprietary assets are embedded in a repertory of routines and organisational skills that are the base of a domestic or international strategic advantage the firm developed for foreign direct investment. Therefore, they do not need to acquire a local company to operate in foreign countries, since their knowledge structure about these aspects is more extended. Therefore, the alternative hypothesis is:

H3*: Firms with more international experience are more likely to enter new markets by green-field investments rather than by acquisitions.

IV.2.2.2. Operational experience

Operational experience carries an impact on the establishment mode decision, but the extant literature provides again mixed evidence. We combine the factors host country experience and cultural distance[69] as a determinant of operational experience (IV.3.2.5.3.). We assume that cultural distance is positively related to operational uncertainty and negatively to host country experience. To put it differently, less cultural affinity can be compensated by more host country experience and vice versa.

Firms gain experiential market specific knowledge by operating in a market (Johanson, Vahlne, 1977). They learn to deal with the local population, the local authorities and know the cultural peculiarities of the local market. Andersson, Svensson (1994), Barkema, Vermeulen (1998), Brouthers, Brouthers (2000) argue that firms with experiential market-specific local experience are, therefore, better able to spot and evaluate local acquisition candidates. They aim for complementarity of their activities with previous activity in the host country and avoid raising competitive pressure (Andersson, Svensson, 1994). The problems of making acquisitions of local domestic companies are therefore reduced by local experience in a given host country. This would lead to the following hypothesis:

H4: Higher operational experience increases the likelihood that a firm will enter new markets by acquisition rather than by green-field investment.

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[69] Host country experience is measured at the firm level and cultural distance at the country level.

By contrast, others argue that firms with more operational experience in the host country have accumulated knowledge about local business practices because they collaborated with local partners (Erramilli, Rao, 1990, Luo, 2001) and do not need to acquire local companies anymore, since they have the knowledge already in-house. Local experience has in some research no significant effect on establishment mode (Hennart, Park (1993), Hennart, Reddy (1997)) and partially in Kogut, Singh (1988)). This could be due to the fact that the need to acquire local companies is lower because through local experience the investors do not need to gain knowledge about local business practices anymore.

Although entry in emerging markets does not allow us to measure host country experience in the same way (IV.3.2.5.3.), because entry was virtually impossible before 1989, we develop a similar argument.

The ability to gain experiential market knowledge decreases with the degree of foreignness, commonly referred to as the psychic or cultural distance (Vahlne, Wiedersheim-Paul, 1977) Related research showed that acquisitions by firms from more culturally remote countries are more difficult in the sense that failure rate of acquisitions increases more than the failure rate of green-field investments with cultural distance (Barkema, Bell, Pennings (1996)). Firms from culturally more remote countries are more likely to set up green-field investments (Kogut, Singh (1988), Barkema, Vermeulen (1998), Vermeulen, Barkema (2001)). While we consider operational experience as positively related to years of local host country experience and negatively to cultural distance, then one can hypothesize:

H4*: Higher operational experience increases the likelihood that a firm will enter new markets by green-field rather than by acquisition investment.

IV.2.3. The impact of uncertainty on entry mode

In transaction cost theory, four different types of uncertainty are distinguished that have an impact on the payoff of the investment mode chosen (Miller, 1998, Williamson, 1989, p. 143): operational uncertainty, external uncertainty, contractual uncertainty and competitive uncertainty (Chapter II, Koopmans' typology in Schmalensee, Willig (1989)). The type of transactional uncertainty is not identical to real uncertainty that is still left after transactional uncertainty is taken into account. That is why we need the real option approach.

Uncertainty is volatility. Volatility can occur in operational circumstances, in market circumstances/demand, in contractual loyalty and in competitive interaction. Every type of transactional and real uncertainty has an impact on entry mode. Operational uncertainty is the opposite of operational experience and is already dealt with in hypothesis 4. We next develop hypotheses on the impact of external and contractual uncertainty on entry mode. Operational uncertainty depends on firm-level characteristics. Because the other measurable types of uncertainty, external and contractual uncertainty, affect the firms of an industry likewise, they will not influence the relative entry order of entry. Competitive uncertainty is not measurable.

In general, increasing uncertainty may lead to waiting. By waiting the potential investor optimally benefits from the possibility of upward movements in the value of the investment project. He meanwhile protects himself against the possibility that the eventual payoff of the project will be negative. The critical value at which the firm will undertake the investment increases with uncertainty: more uncertainty means more upward potential and more downward risk (Dixit, Pindyck (1994)). Uncertainty will not in se raise the value of waiting, but rather the potential for improving decisions on the basis of new information gathered.

The real options literature argues uncertainty decreases the value of irreversible investment.

Paraphrased in time-to-market jargon, uncertainty increases first mover disadvantages. As far as the governance structure id concerned, the choice may depend upon the type of uncertainty. The impact is formulated based on transaction cost economics[70] and real option theory.

IV.2.3.1. The impact of external uncertainty on entry mode

Ex ante, external or state-contingent uncertainty is volatility in the firm's environment, market demand, macro-economic conditions such as currency changes, price evolutions, productivity, etc. that ensue from bounded rationality and make the future firm pay-offs very variable.

The investor will try and compensate for the high volatility of demand by choosing a mode that is flexible and does not involve substantial resource commitment. He limits his initial engagement and acquires an existing firm. Entry into markets with high volatility is more likely to be in the form of an acquisition rather than a green-field investment (Caves, Mehra (1986), Meyer, 1998).

Uncertainty about future demand conditions is highest in embryonic or declining industries (Vernon, 1966). Very high growth stimulates speedy entry, which is more readily achieved by acquisition than by green-field entry. In the case of very high growth, acquisitions confer special advantages, since they allow the speedy acquisition of market share. By an acquisition competition is reduced. In the case of a slowly growing or a declining target CEE industry, green-field entry is not optimal since it involves the addition of capacity and depresses profits. Slow growth also reduces the return expected from adding new capacity (Caves, Mehra (1986)). Extensive resource commitment limits the firm's ability to reduce excess capacity or exit altogether from the host country without incurring substantial sunk costs if demand should fail to reach a significant level (Hill, Hwang, Kim, 1990). When demand conditions become more stable, as tends to happen in mature markets, so the MNE is better able to identify the optimal capacity necessary to serve a foreign market and can therefore choose for a green-field investment (Hill, Hwang, Kim, 1990). Hence, the hypothesis is that:

H5: External market uncertainty increases the likelihood that a firm will enter new markets by acquisition rather than green-field investment.

External uncertainty is equal for different firms operating in the same external environment. Transition from a planned economy towards a market economy might lead to decreasing external uncertainty. As a consequence of that, transaction costs of earlier investment might be higher and investment will be postponed. When the information about the external environment is equally available for all firms, there is no effect on relative order of entry.

IV.2.3.2. The impact of contractual uncertainty on entry mode

Ex post, uncertainty arises about the possibility to enforce the contract because of possible free riding, dissemination and shirking by the potential contractual partner[71]. This is contractual uncertainty. Contractual uncertainty relates to the uncertainty about contract enforcement due to slow price and trade liberalisation, privatisation and restructuring, competition policy, reform of the

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[70] Transaction cost economics pairs the assumption of bounded rationality with a self-interest-seeking assumption described as opportunism. Transaction costs increase, among other factors, when the assets are specific and when uncertainty is very high. Transaction cost economics predicts that the probability of observing a more integrated governance structure depends positively on the amount of specific assets involved and the degree of uncertainty about the future relationship (and on the complexity of the transaction)(Williamson (1985), Shelanski, Klein (1995)). Taking every determinant in isolation as is done in IV.1. is artificial.

[71] Brouthers et al. (2003) call this phenomenon 'behavioral' uncertainty.

financial sector and legal reform, bribery and corruption that may have been high in early transition years. It covers also the protection of property rights and fair competition. The possibility of opportunistic behaviour due to this type of uncertainty increases the need for control. Joint ventures with other firms lead to higher exposure to contractual risk.

Corruption and contractual uncertainty are no synonyms. Corruption[72] is observed to be a separate determinant of FDI location decisions (Voyer, Beamish, 2004). It might also have an impact on the ownership decision. Two contrasting effects could be observed. First, corruption makes local bureaucracy less transparent and increases the value of using a local partner to cut through the bureaucratic maze. On the other hand, the partner himself may be corrupt. Corruption decreases the effective protection of the investor's intangible assets and lowers the probability that disputes between the partners will be adjudicated fairly, leading to wholly owned subsidiaries (Smarzynska, Wei, 2000). This, on the contrary, would reduce the value of having a local joint venture partner. We think this argument is more convincing and therefore, postulate:

H6a: Higher contractual uncertainty and corruption increases the likelihood that a firm will enter new markets by a wholly owned subsidiary rather than a joint venture.

Beside, there might be an impact on the way of growth. Acquisitions of a going concern involve the continuation of existing contracts, and if contractual uncertainty is high, this must be avoided. Green-field investments have the advantage of starting new contracts. Therefore, the hypothesis is:

H6b: Higher contractual uncertainty and corruption increases the likelihood that a firm will enter new markets by green-field investment rather than by acquisition.

IV.2.3.3. The impact of competitive uncertainty on entry mode

Competitive uncertainty relates to the number and actions of competitors in the foreign market. The combined study of competitive interactions and real options requires further investigation and no prediction on its interaction is established yet. Spatt, Sterbenz (1985) consider the degree of rivalry in an oligopoly to be the number of rivals who all receive the same signal about profitability of an investment, but for whom the first mover takes all the benefits. There is no evidence about the impact of the variability of the number of competitors and their actions on order of entry and, therefore, no hypothesis. This is a suggestion for further research. An adequate measure of competitive uncertainty needs to be developed as well.

IV.2.3.4. The impact of irreversibility and uncertainty determinants on entry mode

Sections IV.2.3.1. until IV.2.3.3. dealt with the influence of uncertainty on entry mode and order. Option theory leads to the insight that uncertainty has a delaying impact on the order/size of entry for investments by enterprises whose investment is more irreversible (Dixit, Pindyck (1994), Rivoli, Salorio (1996), Grenadier, Wang (2005)). The Rivoli, Salorio (1996) application explains the entry mode of foreign direct investment.

The option value of waiting to invest becomes more important when the investment project

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[72] There is, for example, evidence of existing shares being diluted by privileged issues of new shares to company insiders during privatisation (Sinn, Weichenrieder (1997)).

encompasses sunk costs, i.e. irreversible costs that cannot be recovered if the firm decides to disinvest. Investments based upon complex technology or specialised investments involving specific equipment or management capabilities are likely to have low reversibility and, hence, raise the critical investment value, leading to delay of investment.

Economics of uncertainty introduces the combined effect with sunk costs. Under uncertainty, irreversible investment will be postponed, because the value of waiting increases, as shown in the analysis on the entry order. This might even mean that no investment takes place. In parallel, uncertainty and irreversibility lead to an entry mode that acts as an option to increase investment later. Therefore, a joint venture will be chosen as this is a smaller investment keeping the size of the project constant and creates the option to expand. Firms with high sunk costs (technological or high sales-promotion competence will try to be flexible especially in the presence of relatively high uncertainty and invest by choosing a joint venture mode. Thereby, they have the option to invest a larger amount later by turning their first investment to a wholly owned subsidiary in case of favourable market evolution. Sunk tangible assets are plant and equipment costs. Other sunk costs beside sunk tangible assets are R&D and advertising costs (Sutton, 1991), Davies, Lyons (1996).

H7: Firms with higher endogenous sunk costs (sunk tangible assets, sales-promotion competence and/or technology competence) will prefer joint venture over wholly owned subsidiary especially in the presence of high uncertainty.

IV.2.4. The impact of global strategic considerations on entry mode

The entry mode decision in a specific geographic market cannot be regarded in isolation (Kim, Hwang, 1992). When the MNC decides to broaden its geographical scope through foreign direct investment, strategic commitment influences (the entry order and) mode of foreign entry (Kim, Hwang, 1992[73]). Among strategic determinants, it is useful to distinguish between 1) global concentration, 2) global synergies[74] and 3) global strategic motivations and all of them are determinants of the ownership decision part of the entry mode.

IV.2.4.1. The impact of global concentration on entry mode

Higher concentration in the firm's traditional markets increases its incentives to look for growth in foreign markets. Production through a joint venture in foreign markets increases competition and could affect market share in traditional markets (Hymer, 1976). Firms show a greater likelihood to choose wholly owned subsidiaries over joint ventures when global concentration in their industry is high (Kim, Hwang, 1992).

With respect to entry order, dominance in the industry will increase the likelihood of foreign investment (Kogut, Singh (1991)). The argumentation is that firm specific assets offer a competitive advantage that results in market power. Larger firms might get easier access to information about the potential benefits of FDI. Industry level concentration in the home market also slows down the entry process (Fuentelsaz, Gomez, Polo (2002)). This raises the following hypotheses:

H8a: The greater the market power the firm possesses, the higher the likelihood that it will enter new markets by wholly owned subsidiary rather than joint venture.

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[73] The Kim, Hwang (1992) paper incorporates global strategic considerations in an eclectic framework of the entry mode decision.

[74] Global synergies are difficult to measure and will be dropped for the analysis.

H8b: The greater the market power the firm possesses, the higher the likelihood that it will enter new markets by green-field investments rather than by acquisitions.

IV.2.4.2. The impact of global strategic motivations on entry mode

Global strategic motivations defined at the corporate level involve setting up a strategic outpost for future global expansion[75], developing a global sourcing site, attacking existing or potential global competitors (Kim, Hwang, 1992). These intentions affect ownership choice in favour of higher control entry modes. As far as sourcing is concerned, if the investment is oriented towards export supply of other international markets rather than towards local supply, it needs to be more integrated within the multinational firm by tighter control through a full subsidiary (Bartlett, Ghoshal, 1989).

If the firm is, in contrast to that, market seeking, it adopts a 'local for local' strategy and needs to get access to local consumers. It might need to enter as soon as possible. A local partner might provide the necessary market intelligence and access to local networks. Speedy access to market share can be most quickly reached by the acquisition of a local firm to reach control over marketing assets.

Equality of preferences and markets is expected to exist. The aim is not to reach the local market, but to create a platform from which to export. Investment locations are interchangeable. Centralised coordination is required to take maximum advantage of these economies of scale by concentrating production in a limited number of countries and exporting this production world-wide (Bartlett, Ghoshal, 1989). These production sites need to be fully controlled as wholly owned subsidiaries.

A strategic intent of resource seeking, also labelled a 'local for global' strategy (Bartlett, Ghoshal, 1989) except in the case where these resources are scarce, has no immediate entry order implication.

Global strategic motivations such as attacking global competitors or development of global sourcing also lead to a preference for wholly owned subsidiaries over licensing and joint ventures. Strategic behaviour theory makes clear that the mode decision is determined by the choice between a global and a multi-domestic strategy. In case of a global strategy, dubbed 'local for global' in the Bartlett, Ghoshal typology, equality of preferences and markets is expected to exist. The aim is not to reach the local market, but to use, for instance, the human capital of a local firm for global operations and create a strategic outpost for future market expansion (Kim, Hwang, 1992). Investment locations are interchangeable. Centralised coordination is required to take maximum advantage of these economies of scale by concentrating quality production in a limited number of countries and exporting this (standardised) product worldwide (Bartlett, Ghoshal, 1989). Rugman, Verbeke (1993) argue also global synergies can be reached when there are high global economies of scale[76]. These form a type of non-location-bound firm-specific advantages. From a completely other theoretical background, Nocke, Yeaple (2004) develop an assignment theory to analyse the composition of foreign direct investment. They argue that green-field investment plays a more important role for FDI from high-wage into low-wage countries. In other words, when factor price differentials are important, green-field investment is preferred over cross-border acquisitions.

Therefore, we hypothesise:

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[75] The idea is that a relatively small investment creates an option to subsequent entries with larger investment (Cottrell, Sick (2002)).

[76] Kim, Hwang (1992) show that, besides economies of scale, the possible sharing between the foreign business unit and the investor's other business can lead to a preference for wholly owned subsidiary modes. Sharing can occur in all sorts of know-how such as manufacturing, R&D, production and marketing personnel and distribution system.

H9: Firms pursuing global strategic motivations (local for global strategy) will enter new markets through green-field investment rather than through acquisition investment.

IV.2.5. Localisation factors

In addition to the asset specificity, experience, uncertainty and irreversibility and strategic factor we include localisation effects as control variables[77]. The entry mode choice is influenced by factors differentiating between different locations within Eastern Europe. Industrial specialisation, national labour markets and privatisation have a strong impact on localisation, but we do not have a strong prediction concerning their effects on entry mode[78].

As the general-equilibrium theory of international trade suggests that there is a distribution of trade across countries, it also makes some very similar predictions about the allocation of foreign investments (Horstmann, Markusen (1992)). This theory states that the factors underlying the allocation of FDI depend on the comparative advantage of the factor endowments for foreign investments available in the host country. The distribution of MNE's subsidiaries depends on the factors or resources available in the country. Some local resources might confer an industry specialisation and be very valuable to a firm. The transaction costs of acquiring these resources in unbundled form through the market may be higher than the costs of an internal transfer via green-field investment (Estrin, Meyer (1999)). Strategic local resources can be qualified human capital or a research base. The cost of adapting and integrating resources via an acquisition will be lower than by trying to get access to strategic resources via the market by green-field investment. Firms rather enter via acquisitions in countries where the industry has a relatively larger research base. The agglomeration effect of locally available skilled labour or scientific knowledge and direct links with other firms can make the location cumulatively more effective (Barrell, Pain, 1999) and attract further acquisitions. We will include the relative size of the research base.

Relatively lower labour costs in Eastern Europe attract investments. It is not clear whether they have an effect on entry mode as well.

Finally, a typical effect of the transition context that is a determinant in the location decision of the investor is the advancement in privatisation of the industry in the host country. We include the privatised share of industry as a control variable. When the privatised share of industry is higher, more acquisition candidates become available. Therefore, firms will enter via acquisitions in countries where the advancement in privatisation is higher. Privatisation may have an agglomeration effect on further FDI. If there are already many companies privatised in a country/ region, this may be an incentive for further investment.

Transition elements as the advancement in privatisation affect both the pace at which and the way in which investment occurred in Eastern Europe in its first ten years since transition started in 1989. One wonders whether typical transition elements make the pattern of FDI in Eastern Europe differ from the pattern observed elsewhere, in other circumstances and/or other periods of time. It needs to be studied whether transition factors interfere not only in the explanation of the order, but also of the type of investment entry[79].

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[77] Localisation advantages of FDI are related to factor endowments, such as low labour costs or a research base (Dunning).

[78] Localisation factors are, therefore, control variables in the entry mode and entry order estimations of the model.

[79] Estrin, Meyer (2002)

Figure 13: Hypotheses on entry mode and entry order – overview

construct	variable	hypothesis
asset specificity	technical competence	H1a: Firms with a high internal technical competence will enter new markets through wholly owned subsidiaries rather than through joint ventures. H1b: Firms with a high internal technical competence will enter new markets through green-field investments rather than through acquisitions.
	sales-promotion competence	H2a: Firms with a high sales-promotion competence will rather enter new markets by wholly owned subsidiaries than by joint ventures. H2b: Firms with a high sales-promotion competence will rather enter new markets by acquisition investment than by green-field investment.
experience	international experience	H3: Firms with more international experience are more likely to enter new markets by acquisition rather than by green-field investment. H3*: Firms with more international experience are more likely to enter new markets by green-field investment rather than by acquisition.
	operational experience	H4: Firms with more operational experience are more likely to enter new markets by acquisition rather than by green-field investment. H4*: Firms with more operational experience are more likely to enter new markets by green-field rather than by acquisition investment.
uncertainty	external market uncertainty	H5: External market uncertainty increases the likelihood that a firm will enter new markets by acquisition rather than by green-field investment
	contractual uncertainty	H6a: Higher contractual uncertainty increases the likelihood that a firm will enter new markets by a wholly owned subsidiary rather than by a joint venture. H6b: Higher contractual uncertainty increases the likelihood that a firm will enter new markets by green-field investment rather than by acquisition.
irreversibility and option value		H7: Firms with higher endogenous irreversible costs (sunk tangible assets, sales-promotion competence and/or technology competence) will prefer joint venture over wholly owned subsidiary especially in the presence of high uncertainty.
strategic posture	global concentration	H8a: The greater the market power of the firm, the higher the likelihood that it will enter new markets by wholly owned subsidiary rather than by joint venture. H8b: The higher the market power of he firm, the higher the likelihood that it will enter new markets by green-field investment rather than by acquisitions.
	global strategic motivation	H9: Firms that pursue a 'local for global' strategy of global integration (resource-seeking) will enter new markets through green-field investment rather than acquisition.

IV.3. OPERATIONALISATION OF ALL CONSTRUCTS

IV.3.1. Dependents

IV.3.1.1. Entry order

The 'first mover' is the first entrant into the Eastern European industry as a whole. The definition of the industry is by NACE Rev.1 code. To ascertain that the first mover in the industry was identified, each respondent was asked to identify the first mover in its industry. Three NACE Rev. 1 codes of industries were reported. There can be a lag between the admission for capital expenditure and the real first capital flow towards the host country. For that reason, investors entering Eastern Europe in the same year as the first entrant are also considered 'first movers'. The 'early follower' is an entrant that entered into the CEEC market the following year or during the second year after the first mover(s). Finally, the 'late follower' has entered more than two years after the year of entry of the 'first mover(s)'. A strategic reaction after two years is not regarded as early.

IV.3.1.2. Entry mode

The entry mode as a combination of the ownership and establishment mode decision is measured as a discrete variable with the values 1,2, 3 or 4 with wholly owned green-field investment (=1), a wholly owned acquisition (=2), a jointly owned acquisition (=3) and a jointly owned green-field investment (=4). Green-field investments are defined as the establishment of a new firm with new facilities on a green-field site. They can exist as joint or single ventures. An acquisition is the (full or partial) purchase of an existing firm. As far as acquisitions are concerned, we did not make the distinction between an equity increase, a share or an asset acquisition, as in (Pye, 1998). An equity increase is an agreement with an already privatised firm to increase equity in the existing firm.

Share and asset acquisitions are related to the privatisation process of the country. A share acquisition is an acquisition of a control equity share in a local company. An asset acquisition is an acquisition of the assets of a local state-owned or private enterprise either through a direct sale or through liquidation. Joint venture-acquisitions encompass generally[80] a new legal entity formed by (part of) the assets of a local firm combined with capital input by the foreign investor.

In fact, we had six categories in the questionnaire: own green-field operations, acquisition with majority holding, acquisition with minority stake, joint venture with a new entity, joint venture incorporating certain existing operations and sales subsidiaries. Own green-field operations belong to the category wholly owned green-field investments. Acquisition with majority holding belongs to wholly owned acquisitions. Acquisitions with minority stake and joint ventures incorporating certain existing operations are categorised as joint venture-acquisitions. Joint ventures with a new entity are labelled joint venture-green-field investments in our categorizations. Sales subsidiaries are no real direct investments and therefore this category was not included.

IV.3.2. Independents

IV.3.2.1. Technical competence

The role of technical knowledge or patents can be measured by the outlays that firms make to create and maintain these specific assets. R&D intensity is a proxy of a firm's non- physical asset

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[80] In theory there are two possibilities, either it is a new legal entity or it is a capital increase in an existing company.

specificity and is measured as the average of the **ratio of the firm's R&D expenses over the sales of the company in the three years preceding entry**. These archival data are commonly used as a measure of asset specificity in Caves, Mehra (1986), Gatignon, Anderson (1988), Hennart (1991), Zhao et al. (2004). The level of firm-specific assets is also proxied by the stock of R&D (Barrell, Pain 1999). $= average(R \& D_{t-i} / sales_{t-i})$ with t = year of entry and i=1,2,3

IV.3.2.2. Sales-promotion competence

An adequate measure of the firm's sales-promotion outlays is not encountered in most of the literature (Caves, 1996). Advertising intensity is usually taken as a proxy of a firm's marketing skills and is measured as the **ratio of the firm's advertising expenses over the sales of the company in the year of entry** as in Gatignon, Anderson (1988), Hennart (1991), and Hennart, Park (1993)
advertising intensity $= average(adverti \sin g \exp enditure_{t-i} / sales_{t-i})$ with t = year of entry and i=1,2,3

In some studies, marketing intensity was taken instead (Gomes-Casseres (1989, 1990), Kogut, Singh (1988).

IV.3.2.3. Typical domestic market share (as indicator of market power)

The typical domestic production share is taken as a measure for market power. Production is taken as a proxy for market share, as these were not available, and this is commonly done. We defined the typical domestic market share of a firm as a weighted average of its market shares in the industries in which the firm operates as in Davies, Lyons (1996), p. 151. The average over the period 1990-1997 was taken. For a firm i, operating in different industries j, its typical domestic market share (as a proxy of production share) is:

$$MS_i = \sum_{j}^{x_i} (MS)_{ij} (\frac{x_{ij}}{x_i})$$

Where $(MS)_{ij} = \frac{x_{ij}}{x_j}$. This is the domestic market share of firm i in industry j. It is the part of production of firm i in industry j over total production in industry j.

Most companies are active in different industries j. Therefore, a weighted average of the market shares in the different industries was taken. The weight is the proportion of production of firm i in industry j out of the total production of firm i $(\frac{x_{ij}}{x_i})$.

Notation:
x_{ij} = production of firm i in industry j

x_i = total production of company i = $\sum_{j} x_{ij}$. It is the sum of production of firm i over various industries j.

j = the industry in which the firm is active

IV.3.2.4. Prior international experience /multinational diversity

Prior international experience is appropriately measured by multinational diversity (Erramilli,

1991). Caves, Mehra (1986), Kogut, Singh (1988), Barkema, Vermeulen (1998) took the number of different countries the firm operates in at the time of entry. This does not differentiate between a small and a large proportion of production in different countries. Therefore, we defined the multinational diversity of a firm as in Davies, Lyons (1996) as an average over 1990-1997. For a firm i, operating in different countries k, multinational diversity is:

$$M_i = 1 - \sum_1^k (x_{ik})^2 / (x_i)^2$$

Notation:

x_{ik} = production of firm i in country k

x_i = total production of firm i = $\sum x_{ik}$. It is the sum of production of firm i over various countries k.

We defined multinational diversity by dividing by x^2 and taking the proportions of production for each country vis-à-vis total firm production. If the company produces in one country, multinational diversity is zero. The indicator is highest when operations are equally spread across equally sized countries. The indicator has the advantage that both the number of countries and the distribution of production over countries is taken into account. The number equivalent gives the fictive number of countries in which the firm would operate if the proportion of production would be equal in all countries, and is defined as:

$$1/(1 - M_i)$$

The number equivalent form of the degree of multinationality is equal to 1, if the company produces in one country and, suppose there are 50 countries, is equal to 50 if the production is equally spread across equally-sized countries.

IV.3.2.5. Uncertainty

IV.3.2.5.1. Ex ante external uncertainty

Uncertainty about future developments in the market environment in Eastern Europe is proxied by the **variability of total industrial production in the host country over the three years preceding entry**. The United Nations 1996 Industrial Commodity Statistics provide industrial production for the years 1990-1996 per sector per country. The standard deviation of total industry production in the host country over the 3 years preceding entry was calculated for each industry as

$$\left[\left| \sum_1^3 (Q_{t-i} - (\sum_1^3 Q_i)/3)^2 \right| \right]^{1/2} = \left[(Q_{t-3} - Q_{av})^2 + (Q_{t-2} - Q_{av})^2 + (Q_{t-1} - Q_{av})^2 \right]^{1/2} .$$

$_{t-i}$ is the production in the year t-i.

IV.3.2.5.2. Ex post uncertainty of contract enforcement/contractual uncertainty= variability of 'progress in transition' in host country 3 years before entry

The probability of smooth contract enforcement depends on 'progress in transition'. The EBRD Transition Reports 1992-1997 provide transition indicators of market-oriented reform for each country in the region, which reflect the extent to which the investment climate in each country is changing by a **collection of 11 indicators**. These dimensions of progress in transition refer to various aspects such as **privatisation and restructuring of enterprises, liberalisation of markets and trade, reform and development of financial institutions, and legal reform**. Contractual

enforcement is certainly determined by legal reform (Hay, Schleifer (1998)). Besides, the functioning of relational contracting is also important as demonstrated by Johnson, McMillan, Woodruff (1999). The existence of informal institutions can also assure that promises are kept. The advancement in privatisation, liberalisation of markets and trade, reform of financial institutions and legal reform is a proxy for the possibility for the assurance of contract reinforcement. As an indicator for contractual uncertainty, we use the **variability of 'progress in transition' over the three years preceding entry in the firm's first investment country**.

Corruption: measurement = corruption index in the host country 3 years before entry

The misuse of public power for private benefit through bribing of public officials, taking kickbacks in public procurement or embezzling public funds is corruption. Public officials and politicians are vulnerable to it.

The level of corruption might influence contractual uncertainty. Corruption indices are not integrated in the 'progress in transition' indicator calculated by the EBRD.

The TI-corruption ranking ranks countries from 10 (highly clean) to 0 (highly corrupt) and is collected by Transparency International and Göttingen University. It is a 'poll of polls'. It is an assessment of the corruption level in the countries as perceived by businesspeople, risk analysts and the general public. It is based on 7 surveys from the following sources: 2 surveys from the Institute for Management Development in Lausanne (World Competitiveness Yearbook), one survey from the Political & Economic Risk Consultancy Ltd., one from Hong Kong (Asian Intelligence Issue no. 482); one from Gallup International (50th Anniversary Survey, one from the Political Risk Services, East Syracuse, New York (International Country Risk Guide), and one survey from Göttingen University. At least 3 surveys are required for a country to be included in the index. Each of the surveys receives the same weight. Each of the 7 sources is normalised to the same mean and standard deviation the subgroup of countries had in the index. So, the inclusion of a survey that only scores a subgroup of countries affects only the scores between those countries and not the performance of the subgroup in relation to other countries. With equal averages, the simple average is calculated from the normalised data. Since taking the average changes the mean and variance, the final results have again been normalised to the same mean and variance the countries had in the index. For surveys that use categorical data, the factor scores are determined by correspondence analysis.

The average corruption index of the host country over the three years preceding entry is taken as a second measure for the construct contractual uncertainty.

IV.3.2.5.3. Operational uncertainty (as the opposite of operational experience)= cultural distance score / (years of local experience +1)

Operational uncertainty is measured at the firm level. Operational uncertainty is lower when the firm has some regional experience in similar markets. Therefore, it was dealt with under experience. Familiarity with the host country is usually measured as the number of previous entries of a firm into the host country (cf. Kogut, Singh (1988), Barkema, Vermeulen (1997), Hennart, Larimo (1998)). Before the first investment in the CEECs, however, entry had been virtually impossible. Local experience can also be the existence of trade contacts or other historical contacts. Instead of the number of entries, the number of years that trade and other historical contacts exist can be used. Because regional experience is exceptional, the familiarity with the local market is predicted by the cultural distance between the firm's country of origin and the host country. The disadvantage of this measure is that it is not a firm-level variable, but the same for home-host country combinations.

A compound score is calculated based on local experience and cultural distance in 1989. **The**

cultural distance score is divided by the number of years of local experience + 1. This is normalised by dividing by the highest value. A score of 1 indicates the smallest number of years of host country experience (trade contacts or other historical contacts) and highest distance to the host country. The number of years of local experience is taken from the survey. For cultural distance, the measures of Hofstede were not available for Eastern Europe. Instead those of Schwartz, Bardi (1997) are used. This measure is an indirect measure of operational uncertainty. When the firm's local experience of the region is higher and/or cultural distance is lower (depending on the firm's nationality), the probability that information on which the entry decision is based is wrongly interpreted, is lower.

IV.3.2.5.4. Competitive uncertainty = variability in Herfindahl index of the industry in the host country over three years preceding entry

As a measure for the uncertainty about competitive entry in Eastern Europe, we took the variability of the Herfindahl index of concentration in the sector in the host country in Eastern Europe for the three years preceding entry. It is not the number of competitors that influences the competitive structure, but whether or not they are equally balanced, i.e. the concentration of their market shares. The variance in concentration is the outcome of entry by local or foreign competitors.

The Herfindahl index is (Davies, Lyons (1996)):

$$HEU_j = \sum_i (x_{ij} / x_j)^2$$

Notation:

$x_j = \sum x_{ij}$ = production in the industry j is sum of the production of the different firms in that industry.

$i = 1.. \quad n_j$ the number of firms in the industry j.

$j = 1 \ldots$ major industry in which the firm is active.

The Herfindahl concentration index is the sum of the squared production shares of all firms in the specific industry. The lower bound for n firms is $\dfrac{1}{n_j}$ when all firms are equal-sized. The value increases, as more of the industry's production is concentrated among the leading firms.

Competitive uncertainty is defined as the standard deviation of the Herfindahl indices of the three years preceding entry.

IV.3.2.6. Strategic disposition

Function of the investment project: 'local for global' = 1

If the aim of the investment is global integration, it has the function 'local for global' and the investment is intended for export supply. In this case the dummy is 1 and the dummy is 0 for 'local for local' or investment meant for local supply. This is taken from the survey.

IV.3.2.7. Irreversibility

Degree of irreversibility = (sunk tangible assets / total tangible assets) 3 years before entry average

Ideally, one should be able to parameterise irreversibility by taking the wedge between the

purchase and resale price of capital (Abel, Eberly (1996)). Empirically, this might turn out to be a problem, since the sale price of capital invested is not observable before entry and highly variable in transition economies. Instead, the **average ratio of sunk tangible assets (plant, machinery, equipment) over total tangible assets in the three years before entry** was taken as a measure for the irreversibility of the investment, as in Pennings, Sleuwaegen (2000). This was calculated from the company accounts. Other sunk costs are R&D and advertising expenses. These are measured at the company level.

IV.3.2.8. Locational variables – characteristics of the host economy

IV.3.2.8.1.Labour market effect: unit labour costs ratio

The labour market effect is measured by the three year average manufacturing unit labour costs in the host country relative to a weighted average of manufacturing unit labour costs in the whole region of Central and Eastern Europe, based on OECD data for several years. The unit manufacturing labour costs are **weighted by the ratio of manufacturing value added in the host country over total manufacturing value added in Central and Eastern Europe**. Since adjustment is slow, we checked for different lags. The 3-year average ratio of manufacturing unit labour costs is reported.

IV.3.2.8.2. Industrial specialisation - relative research base

The strength of agglomeration effects is investigated by a sector-specific relative measure of the characteristic of the host economy. The relative size of the research base is measured as the three-year (before entry) average of the stock of R&D in the host country over the stock of R&D in all CEECs. This is measured by the stock of R&D (R&D intra-muros by the enterprises of the host country (BERD database/DIRDE) undertaken in the host country in the industry relative to the total stock of R&D in all CEE countries at PPP for that sector, as in Barrell, Pain (1999). Because of lack of data, we did not include the relative size of production, since the ratio of industry output in the specific host country relative to industry output in all CEE countries is not available.

IV.3.2.8.3. Advancement in privatisation in the host country

To capture the speed of privatisation, the private sector share of GDP or employment is an option. The **private sector share in GDP in the year of entry** was taken as a measure for the advancement in privatisation in the industry (EBRD, 1999). This measure captures, however, both the privatised sector and de novo private firms. This measure is an approximation, since there are sharp contrasts between industries. The level of private sector control on industry level is not available and comparable across countries over the time period considered.

Conclusion

We developed an integrated framework to explain how transaction specific assets, experience, uncertainty and irreversibility and global strategic posture influence the choice of ownership and establishment mode. We formulated hypotheses on the type of influence and defined the variables that are used as measurements for the constructs. In the next chapter, the validity of the framework will be tested with a multi-country sample of foreign investment entry into the CEECs discussed in Chapter III.

PART FOUR: THE ANALYSIS OF INVESTMENT ENTRY MODE IN EASTERN EUROPE

Chapter V. Analysis of investment entry mode

V.0. Introduction to the analysis of entry mode decisions in Eastern Europe

This chapter analyses the preferred first entry mode decision in a selection of Eastern European countries by Western investors during the first decade of transition in the period 1990-1997. The aim is to evaluate the strength of the theoretical model developed in Chapter IV in explaining entry mode. The entry mode decision analysed consists of two related decisions, i.e. the ownership choice with joint venture and wholly owned subsidiary as the relevant alternatives[81] and the choice of establishment mode or way of growth with acquisition and green-field as the relevant alternatives. As far as entry order is concerned, we distinguish between first movers, early followers and later followers according to the definitions given in Chapter IV.

The framework developed synthesizes transactional variables, experience variables, uncertainty and irreversibility and global strategic objectives into a theory of the variables that influence both ownership and establishment mode choice. We study which factors can discriminate between these four entry modes and what the prediction is in these transition economies.

The chapter is structured as follows. Section V.1. explains the empirical model. Section V.2. shows the results of the entry mode estimations and is followed by the discussion part in section V.3.. Section V.4. concludes.

V.1. An empirical model of entry mode choice

The structural decision model of Chapter IV.1. of the entry mode decision shows that entry mode depends on 1) transaction-specific assets, 2) experience, 3) uncertainty and irreversibility and 4) global strategic variables. We test the validity of the model in reflecting the theoretical conjectures. The justification of the measurement per construct has been explained in section IV.3. Entry mode determinants can be classified according to whether they are measured at a firm, an industry or a host country level.

The entry mode decision is in our definition a discrete choice among four alternatives: wholly owned green-field investment, wholly owned acquisition, jointly owned acquisitions and jointly owned green-field investment.

While the theoretical model does not impose any additional structure on the entry mode problem, the statistical models impose additional structure, either simultaneity or sequence of the ownership and way of growth decisions. So, the econometric model should allow for this feature. We tested first, a multinomial logit model and, second, as a robustness test, a hierarchical decision model reflecting a sequence of mode decisions. This does not mean that the model is a behavioural model of entry mode choices.

Decision-makers maximise profits of the various entry modes, and the profit that the ith firm derives from the entry mode choice j is represented as follows:

$$\pi = \overline{\pi}_{ij} + e_{ij} = X_{ij}{}'*\beta + e_{ij}$$

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[81] For joint ventures, minority and majority shareholding were all pulled together as joint ventures. The raw data originally made it possible to analyse the share participation of joint ventures. This detailed analysis was left out for simplicity. For the establishment mode, there are no alternatives beside acquisition and green-field investment.

Where the vector X_{ij} comprises the firm, industry and host level variables that determine the entry mode choice, β is the vector of unknown parameters to be estimated, and e_{ij} the stochastic term associated with a choice by a decision maker.

The multinomial logit model with a dependent variable Y that represents the four alternative entry mode choices (wholly owned green-field investment (Y=1), wholly owned acquisition (Y=2), jointly owned acquisitions (Y=3) and jointly owned green-field investment (Y=4)) would look as follows. This model follows from the assumption that the stochastic terms e_{ij} are independently and identically distributed with Weibull density functions. McFadden (1974) has shown that a necessary and sufficient condition for the random utility model with independent and identically distributed errors to yield the logit model is that the errors have Weibull distributions. The difference between any two random variables with this Weibull distribution has a logistic distribution function, giving the multinomial model.

The model, in which we estimate a set of coefficients β(1), β(2), β(3), β(4) is specified as a logistic distribution function:

$$P(Y=1) = \frac{e^{\beta(1)X}}{e^{\beta(1)X} + e^{\beta(2)X} + e^{\beta(3)X} + e^{\beta(4)X}}$$

$$P(Y=2) = \frac{e^{\beta(2)X}}{e^{\beta(1)X} + e^{\beta(2)X} + e^{\beta(3)X} + e^{\beta(4)X}}$$

$$P(Y=3) = \frac{e^{\beta(3)X}}{e^{\beta(1)X} + e^{\beta(2)X} + e^{\beta(3)X} + e^{\beta(4)X}}$$

$$P(Y=4) = \frac{e^{\beta(4)X}}{e^{\beta(1)X} + e^{\beta(2)X} + e^{\beta(3)X} + e^{\beta(4)X}}$$

The coefficients for the joint venture green-field investment, the base category, are set equal to 0.

The economic problem under study, namely the joint choice of ownership and establishment mode, is usually estimated by splitting the choice between the two and using conditional or multinomial logit models, either exclusively for the ownership or exclusively for the establishment mode choice. We have four categories, whereas most of the literature has two or three categories of entry modes. Kogut, Singh (1988) estimate a simultaneous multinomial logit model for green-field (wholly owned only) investment, (green-field and acquired) joint ventures and (acquired) wholly owned subsidiaries. These authors pool all joint ventures in one category, whether these are acquisition or green-field joint ventures. Some studies estimate the ownership model and control for the choice of establishment mode (e.g., Hennart, Larimo (1998)). Others such as Caves, Mehra (1986) and Hennart, Park (1993) explain the establishment mode decision, controlling for the type of ownership (joint venture vs. wholly owned subsidiary). Barkema, Vermeulen (1998, p. 22), in their analysis of the start-up (or green-field) or acquisition decision, suggest that a theoretical explanation for the finer distinction between single and joint ownership that intersects the start-up or acquisition decision is needed. Section V.2.2. shows the results of the multinomial logit[82] specification.

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[82] An alternative to the multinomial logit model would have been to group the alternatives into subgroups that allow the variances to differ across the groups while maintaining the IIA assumption within the groups. This would be a nested logit model (Green, p. 866). This supposes that there are attributes used for one specific choice level that do not appear at the

As a robustness test to the multinomial logit model, the choice can also be specified in a hierarchical model with two variants, dependent on whether the ownership or the way of growth decision comes first. The firm, industry or host country level distinction between variables again intersects the two stages of decision making. Since there is no discriminating variable for ownership choice or establishment mode based on the theoretical model, the model is not nested and the same determinants decide about ownership in the first stage and way of growth in the second and vice versa (Green, p. 865).

V.2. RESULTS

Table 18 provides the means, standard deviations, and correlations of the measures used in this study. Since external uncertainty, contractual uncertainty and competitive uncertainty are not measured at the firm level, the correlation with transaction specific assets that are defined at the firm level has no valuable interpretation. Host country variables are only meaningfully compared among each other or with industry variables. Therefore, we show only the meaningful correlations in Table 19.

Table 19 gives the means, standard deviations and correlations between all variables. It is apparent from the table that corruption, which we conjectured as a second measurement of contractual uncertainty is not correlated with progress in transition, the alternative measure of contractual uncertainty (Pearson correlation coefficient equal to 0.05). Remark also the fact that higher firm level R&D is correlated at a 0.05 level with a higher relative research base in the host country. This reflects the expectation that firms that are highly research intensive invest in host country industries that are comparatively higher-tech (Pearson correlation coefficient of 0.113, significant at a 0.05 level). The highly significant negative correlation coefficient between advertising intensity and irreversibility seems to suggest that firm level sales and promotion assets are not so irreversible as a measure of sunk cost. The correlation coefficient between R&D intensity and irreversibility is positive (Pearson correlation coefficient equal to 0.41 and significant at the 0.05 level). The latter idea needs to be confronted with the option theory based conjecture in the results of the entry mode estimation further on in this chapter.

Firms with more international experience are more likely to be present in industries with higher global concentration. They have lower operational uncertainty (because of our definition of operational uncertainty at firm level) and in the Bartlett and Ghoshal typology they are more likely to produce locally for global markets. Firms in industries with higher concentration tend to have lower operational uncertainty. Advertising intensity and R&D intensity at the firm level are negatively correlated. R&D intensive firms are more likely to belong to the 'local for global' typology and have higher irreversible costs. Contractual uncertainty seems to be inversely related to operational uncertainty (-0.34). Corruption seems to be inversely related to competitive uncertainty (-0.13). Advancement in privatisation is positively related to labour costs (0.35).

V.2.1. Estimation results of the multinomial logit specification for entry mode and marginal effects

Table 20 gives the estimation results for the multinomial logit model (models 1, 2) with wholly-owned green-field, wholly owned acquisition, joint venture-acquisition and joint venture – green-field as four separate discrete choices in a non-hierarchical structure. Since our aim is also to find out the relative importance of the irreversibility and uncertainty vis-à-vis the model without these

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other level. Since the choices at the second level (ownership or establishment mode) are the same in both subgroups, this condition for structuring the decision as a nested logit is not met.

variables in discriminating among the four entry modes, we show two specifications. In model 1 we estimated the multinomial logit model of entry mode with the direct effects of all theoretical variables. Model 2 augments this model with the hypothesis derived from option theory. For each determinant we discuss its impact on the ownership choice and on the establishment mode choice.

The impact of asset specificity on entry mode – simultaneous model

Mixed results are obtained for the influence of transaction-specific assets (technical and sales-promotion competence) on the ownership choice. The coefficients of the variables that capture the different aspects of asset specificity are positive, but significance levels are different. Hypothesis H1a stating that technical competence encourages wholly owned subsidiary rather than joint venture formation is thereby weakly confirmed. A slightly significant positive effect ($p<0.1$) is found in the comparison between wholly owned green-field and joint venture green-field, but no support is found among acquisitions. On the contrary, support is found for hypothesis H2a suggesting that sales-promotion competence encourages wholly owned subsidiaries rather than joint venture entry ($p<0.01$).

The effect of R&D assets on the establishment mode choice is only slightly significant, but in the expected direction in the comparison between joint venture acquisition and joint venture green-field investment (coefficient $–0.625$; $p<0.1$). Hence hypothesis 1b stating that R&D assets increase the probability of a green-field investment is weakly supported. For advertising intensity, the effect is stronger (coefficient 0.746; $p<0.05$), strongly supporting Hypothesis 2b that advertising intensive firms tend to establish acquisitions.

The impact of experience on entry mode – simultaneous model

Both international experience[83] (multinational diversity) and operational experience (the opposite of operational uncertainty) tend to increase the likelihood of full ownership (with $p<0.01$ for both). The effect is only found among green-field investments (columns 1 to 2). This finding is in line with Hennart (1988), i.e. firms that do not need access to local knowledge held by a partner will not joint venture but prefer full ownership.

Hypothesis 3 is rejected in favour of hypothesis 3*, stating that firms with more international experience are more likely to enter new markets by green-field investment, is supported, ($p<0.01$). Hypothesis 4 stating that higher operational experience increases the likelihood that a firm will enter new markets by acquisition is rejected ($p<0.01$) in favour of hypothesis 4*, indicating that higher operational experience increases the likelihood that investors choose green-field investment ($p<0.01$).

The impact of uncertainty[84] on entry mode - simultaneous model

External uncertainty tends to increase the likelihood of joint venture formation, especially among green-field investments. This effect is, however, not grounded in theory.

Hypothesis 5(b), stating that external market uncertainty increases the likelihood that a firm will enter new markets by acquisition rather than by green-field investment, finds support (coefficients 1.340 and -1.300 respectively and $p<0.01$ and $p<0.05$ in columns 3 and 6).

Hypothesis 6a, which states that higher contractual uncertainty increases the likelihood that a

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[83] International experience is measured through multinational diversity as explained in section IV.3.2.4. and operational experience is measured as the opposite of operational uncertainty, explained in part IV.3.2.5.3..

[84] Operational experience is defined as the opposite of operational uncertainty. Therefore, it has already been mentioned under the previous heading 'experience'.

firm will enter new markets by a wholly owned subsidiary rather than by a joint venture, is strongly supported (p<0.01). Hypothesis 6b stating that higher contractual uncertainty increases the likelihood that a firm enters new markets by green-field investment rather than acquisition is supported. For corruption, as an alternative measurement of the construct contractual uncertainty, hypothesis 6b is rejected.

Economics of uncertainty and entry mode - simultaneous model

Firms with higher endogenous sunk costs prefer joint venture entry especially in the presence of higher uncertainty, strongly confirming hypothesis H7a (p<0.01) with its roots in economics of uncertainty. This is only tested in model 2. No effect is observed on the establishment mode choice. The results only support this effect on the ownership choice when the ratio of sunk tangible assets over total tangible assets is taken as a measurement of sunk cost. When using technological and sales-promotion costs as sunk costs as a measurement, as has been proposed in Chapter IV in line with some existing literature, this effect is not supported.

The impact of global strategic variables on entry mode - simultaneous model

As far as the global strategic disposition is concerned, global concentration tends to increase the likelihood of full ownership (coefficients positive in columns 1 and 5 and p<0.01), supporting hypothesis H8a. Hypothesis 8b, suggesting that the higher the market power of the firm, the higher the likelihood that it will enter new markets by green-field investment, is rejected and the effect is not significant.

Global strategic motivation[85] has no significant influence on the establishment mode choice (columns 3 and 6), rejecting H9. The strategy of global integration seems to influence ownership in the direction of more wholly owned subsidiaries. There is no significant effect of the order of entry on the entry mode chosen.

Finally, results are obtained for the localisation construct. International green-field investments are more likely in the case of a host country with relatively lower labour costs. Industry or host country dummies show no effect, neither on the ownership choice nor on the establishment mode choice.

Since Green (2000) warns against the interpretation of coefficients of the multinomial logit model, we also calculated the elasticities or marginal effects[86] of the probability of each entry mode with respect to each variable (Long, Freese, 2003). The results are presented in Table 22. Each cell shows the change in the probability of choosing an entry mode in response to a standard deviation[87] increase in each variable (holding other variables at their means). The numbers are sample average percentage changes. The numbers in bold are the largest and smallest changes in probability of entry mode for each independent variable.

A goal was to understand how each factor has an impact on the distribution of entry mode and which factors can discriminate between the entry modes.

A standard deviation increase in R&D intensity increases the probability of wholly owned

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[85] What is meant is the 'local for global' motivation that does not completely coincide with the resource or low-labour cost seeking (as opposed to market seeking) motivation for FDI. Further comments on this can be found in V.3.2.1.3. for ownership decisions and V.3.2.2.4. for establishment mode decisions.

[86] We used the 'margeff' module made available by Tamas Bartus at http://fmwww.bc.edu/RePEc/bocode/m/margeff. This is not available yet in Stata 8, but released in February 2006.

[87] Since the variables have different scales, we look at the effect of a standard deviation change rather than a 1-unit change.

green-field investment most and decreases the probability of joint venture acquisition most. Hence, higher R&D intensity mostly encourages wholly owned green-field investment and mostly discourages joint venture acquisition entry. The elasticity of the probability of entering by a wholly owned acquisition with respect to an increase in advertising intensity with one standard deviation is 0.62, whereas the corresponding elasticity for a joint venture green-field entry is –0.53. In sum, higher advertising intensity mostly encourages wholly owned acquisition investment and mostly discourages joint venture green-field investment.

As far as international experience is concerned, a standard deviation increase in international experience increases the likelihood of wholly owned green-field investment by 0.97 and decreases the probability of joint venture acquisition entry by 0.55. In line with international experience, firms with more operational experience are most likely to enter by wholly owned green-field investment and least likely to enter by joint venture acquisition, the marginal effects being, respectively, 0.85 and –0.63. In general, experience encourages wholly owned green-field entry.

As far as uncertainty is concerned, an increase in external (demand) uncertainty with one standard deviation increases the probability of joint venture acquisition by 0.79 and decreases the probability of wholly owned green-field investment by 0.78. The elasticity calculated for contractual uncertainty indicates that an increase of contractual uncertainty by one standard deviation leads to a 0.75 increase in the probability of wholly owned green-field investment and a 0.60 decrease in the probability of joint venture acquisition investment.

The probability of joint venture acquisition seems much larger for investors with high sunk tangible assets or R&D tangible assets under high uncertainty, but not for advertising tangible costs. A wholly owned green-field entry is the least probable in case of high irreversibility and high uncertainty.

High market share increases the likelihood of entry through wholly owned green-field investment most and lowers the probability of joint venture green-field investment. A local for global low cost resource seeking motivation mostly leads to wholly owned acquisition and is least likely to stimulate joint venture green-field investment. A lower unit labour cost ratio host country attracts mostly joint venture green-field investment.

In sum, based on the marginal effects, one can conclude the following to discriminate between entry modes. Wholly owned green-field investment is mostly encouraged by the company characteristics R&D specific assets, by international and operational experience and high market share and the presence of contractual uncertainty. Wholly owned acquisition entry is chosen by companies with high advertising intensity and a high market share and a local for global strategic posture. Joint venture acquisition is mostly encouraged by external (market) uncertainty, and the company characteristic of highly sunk tangible assets combined with high uncertainty. Finally, joint venture green-field investments are encouraged by the presence of highly irreversible assets and high uncertainty.

V.2.2. Additional analysis - Estimation results of the sequential logit specification for entry mode

As a robustness test, Table 23 shows the results of a sequential model. The sequential/hierarchical logit model looks like a two-level choice problem, although this model is a modification of the stochastic specification in the original conditional logit model and not a model of behaviour. First, we run a binary logistic model explaining ownership on the full sample. Then, we divide entry modes into two sub-samples of wholly owned subsidiaries on the one hand and joint ventures on the other and run a conditional binary logistic model explaining establishment mode in these sub-samples. Thereby, the determinants have an effect, conditional on the factors that already influenced the ownership decision.

The relevance of the tree structure for investment decisions needs to be tested. The theoretical foundation and earlier empirical work on entry mode choices estimates an ownership model taking the establishment mode as a categorical determinant and vice-versa. In order to be more flexible, the hierarchical logit model is used here to analyse the economic problem of entry mode, to take into account that the substitution level among joint ventures (categories 3 and 4) and among wholly owned subsidiaries (categories 1 and 2) is higher than between 1 and 3 and 1 and 4.

Similarly, because of the theory on establishment mode, 2 and 3 on the one hand and 1 and 4 on the other might be closer substitutes among each other. Asset specificity, experience and global strategic variables are part of the theoretical arguments for this fact. Establishment mode decisions are thereby mainly linked to experience. Since some entry modes are closer substitutes than others, the solution is to nest them (Maddala, 1983). The hierarchical logit specification implies a sequential estimation, namely, first, a binary logit model of ownership choice (using the logical structure of an ownership and an establishment mode decision, consecutively) and, subsequently, a conditional logit model of the establishment mode choice, conditional on the ownership choice made.

Alternatively, if the hierarchical structure cannot be identified, investors rather consider all entry modes on the same ground. In that case, joint venture acquisitions and joint venture green-fields are not closer substitutes than joint venture acquisitions and wholly owned acquisitions on the one hand and than joint venture green-fields and wholly owned green-fields on the other.

Table 23 shows the results of the estimation of the model based on the sequence of entry mode choices, estimated by the full information maximum likelihood estimation.

The impact of asset specificity on entry mode – sequential model

The results of the ownership decision are reported in the first and the fourth column of Table 23. Within wholly owned subsidiaries, wholly owned green-field investments are compared to wholly owned acquisitions (columns 2 and 5 of Table 23). Within joint ventures, joint venture green-field investments are compared to joint venture acquisitions (columns 3 and 6 in Table 23). Model 1 (columns 1 to 3) presents the model specification with the direct effects of the theoretical variables and host country and industry dummies and model 2 (columns 4 to 6) represents the full model incorporating the interaction effect between uncertainty and irreversibility.

Because the determinants of the establishment mode within the wholly owned subsidiaries are different from the determinants of the establishment mode within the joint ventures, the sequential nature is valid. We also tested the alternative structure with the establishment mode as a first choice and the ownership decision as the second choice. The determinants of the ownership decision in the subgroups of acquisitions and green-field investments were the same. Both models are significant at the 0.01 level. Log-likelihood ratio tests demonstrate that model 2 has significantly more explanatory power than model 1 (p<0.01).

The impact of asset specificity on entry mode – sequential model

Hypothesis 1a is rejected. High technical competence does not increase the probability of wholly owned subsidiary entry (columns 1 and 4 in Table 23). High technological assets have a strong and positive effect on the decision in favour of a green-field investment (p<0.01 for model 1 and model 2), supporting hypothesis 1b. Sales-promotion competence has a strongly significantly positive effect on the probability of a wholly owned subsidiary compared to the probability of a joint venture, supporting hypothesis 2a (p<0.01 in both models). Hypothesis 2b states that sales-promotion competence has a positive effect on the probability of acquisition rather than green-field investment. This is strongly supported by the estimation results (p<0.01 for both models).

The impact of experience on entry mode – sequential model

International experience has a significant effect on the probability of green-field investment, rejecting Hypothesis 3 and supporting hypothesis 3*. Hypothesis 4 is rejected in favour of hypothesis 4* that suggests that operational experience stimulates green-field rather than acquisition investment.

The impact of uncertainty on entry mode – sequential model

Hypothesis 5 states that the tendency of firms to choose acquisition is higher when external market uncertainty is higher ($p < 0.01$ among wholly owned subsidiaries and among joint ventures for model 1 and model 2). Hypothesis 5 is, hence, supported. Higher external market uncertainty leads also significantly to joint venture preference, but there is no theory to support this. Hypotheses 6a and 6b suggest that respectively full ownership and green-field investment is chosen with greater contractual uncertainty, which is confirmed across the models for our first measure of contractual uncertainty, but not for corruption, confirming hypotheses 6a and 6b.

Economics of uncertainty and entry mode - sequential model

Hypothesis 7 predicts that firms with high irreversible (sunk) costs prefer joint ventures rather than wholly owned subsidiaries, especially in the case of high uncertainty. The interaction between sunk costs and uncertainty is consistently negative and significant in the case that irreversibility is measured as sunk tangible costs/total tangible costs ($p < 0.1$) or R&D costs/total tangible costs ($p < 0.05$), but not for advertising costs/total tangible costs. So, hypothesis 7 is confirmed.

The impact of global strategic variables on entry mode - sequential model

Hypothesis 8a concerned the positive influence of market power on majority ownership. Higher market power has a positive and significant effect on the probability of a wholly owned subsidiary in support of hypothesis 8a ($p < 0.01$). Hypothesis 8b stating that market power has a positive effect on the probability of green-field investment is not supported. Among joint ventures (columns 3 and 6) market power has a counter-intuitive negative sign, although it is not significant.

Hypothesis 9 suggesting that firms that pursue a local for global strategy will enter new markets via a green-field investment is rejected. There is some evidence that a 'local for global strategy' leads to wholly owned subsidiaries, a finding that was not predicted.

The results for the control variables deserve some comment. As in the multinomial logit specification, there is partial evidence of a preference for green-field investment in host countries with lower labour costs ($p < 0.01$ in model 1 and $p < 0.05$ in model 2 among joint ventures only). No statistical significance is reached for host industry dummies and hardly any for industry dummies, apart from a preference for green-field investment in chemical and construction industry and for acquisitions in textile industry.

V.3. DISCUSSION OF ENTRY MODE

This section is split into the discussion of the methodology part (V.3.1.) and the discussion of the results (V.3.2.)

V.3.1. Discussion of the methodology for entry mode estimation

V.3.1.1. Independence from irrelevant alternatives

There is considerable interest in alternatives to or extensions of the multinomial logit model for situations where the IIA (independence from Irrelevant Alternatives) assumption is unpalatable. The IIA-assumption implies that the odds-ratio between two alternatives does not change by the inclusion (or exclusion) of any other alternative. If we assume that the IIA assumption holds, and the four entry modes as we defined them, are equally substitutable to the investor, this means that MacFadden's conditional logit estimator can be used and the multinomial logit model can be used for the joint choice of ownership and establishment mode.

V.3.1.2. The dependent variable – entry mode

We considered entry mode decisions as a combination of two discrete choices, ownership choices and establishment mode choices. In fact, we have six categories in the questionnaire that were reduced to these four, as has been explained in chapter IV. Most of the literature either explains establishment mode choices or ownership choices. Part of it distinguishes only three of them: joint ventures, (wholly owned) acquisitions and green-field investments, dropping joint venture green-field investments, assuming that green-field investments are mainly wholly owned, e.g. Kogut, Singh (1988). In practice, joint venture green-field investments are also possible. In the sample used in this chapter 14.87 percent of the entry modes are joint venture green-field investments and this is the smallest fraction out of the four entry modes. Our research adds to the scant literature explaining the four modes of entry (Barkema, Vermeulen, 1998) or Chen, Hennart (2004).

Especially with establishment modes in economies in transition, a clear-cut distinction between acquisition and green-field can be put into question. Meyer, Estrin (2001) suggest that between green-field and acquisition there is also a hybrid 'brownfield'[88] mode, typical of the emerging economies. The investor that acquires a firm in the years 1990-1997 in Eastern Europe in some cases almost completely replaces plant and equipment, labour and product line, because the acquired firm does not possess sufficient resources. Such an acquisition may in that case yield a local brand name or market share, and perhaps valuable supply or customer relationships, but the production processes and organizational structures are effectively reconstructed from scratch. So, although such a type of investment is categorised as an acquisition, it becomes more similar to a green-field investment. Meyer, Estrin (id.) argue that the opposite shift can also occur and did occur in Eastern Europe. An initial green-field investment can depend on critical resources that are not freely available[89]. Such an investment will be categorised as a green-field investment but, as a matter of fact, the acquisition of these resources make it look like an acquisition of a firm. It is not clear whether this option is a form of planned ex ante behaviour or rather a decision taken after the acquisition (Estrin, Meyer (1999)). It might be worth exploring this further and giving this further theoretical weight.

As far as ownership is concerned, the choice is between joint ventures and wholly owned subsidiaries. Cooperative alliances are an alternative form of ownership-based entry modes the particularities of which are not taken into account here (Zhao, Luo, Suh, 2004). Beside, instead of distinguishing between joint and single venturing, a finer distinction among joint ventures between

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[88] The terminology of brownfield investment is used in a slightly other meaning than its common meaning. It is commonly used for a piece of industrial or commercial property that is abandoned or underused and often environmentally contaminated, especially one considered as a potential site for redevelopment.

[89] Hennart argues that if those resources are not freely available, a green-field investment is simply not possible, as this is a prerequisite.

minority and majority or dominant joint ventures could have been made (Hill, Kim, 1988), Madhok (1997). For simplicity, this distinction is not made here, since the focus of interest is the industrial organization of activities from the point of view of the instrument itself and not from the point of view of the balance of influences between both companies. This could be an extension.

V.3.1.3. Omitted determinants of entry mode and caveats

In this section we briefly discuss other factors that are likely to influence entry mode and that were, for particular reasons, not taken into account. The dependent variable is the preferred entry mode. Institutional determinants such as changes in the legal restrictions of ownership per industry over time influence ownership decisions, but are only indirectly, through the construct of 'contractual uncertainty', taken into account. Besides, entry mode choices are also determined by availability constraints, such as the presence or lack of adequate acquisition candidates or targets, which we were unable to measure. Neither are investment promotion effects and tariff jumping behaviour studied.

The shifts due to institutional reasons are, as a matter of fact, filtered out. For the analysis of the entry mode choice we looked into the investor's private profit optimising choice and did not consider the policies of and bargaining with the host government that can, clearly, force firms to share equity in a joint venture (Vannini, 1995). If the entry mode had to be changed as a result of this bargaining process with the host government, this was, hence, not taken into account and the original preferred mode was taken as the entry mode. It is important to avoid mixing up results of the firm's private decisions with those of bargaining with host governments (Caves (1997), p.73). We think the sample of host countries[90] is too homogeneous, with Russia being a bit different from the other host countries, to provide valuable results on the effect of institutional obstacles to entry mode choice. Finally, the effect of local government interference is also seen in the form of competition in investment promotion that shapes the entry mode (Brossard, H. (1998)), but this is outside the scope of the decision studied.

Another shortcoming of our research design is that non-investors are not included. Apart from the non-response bias for this group from which the sample suffers, it makes sense to state that the starting point of the choice for the deciding firm/manager is the way of foreign direct investment and the choice of an appropriate investment entry mode. If no real investment will be undertaken, but contractual (export) agreements are made, the time pattern chosen for that particular company to get involved in activities abroad is most probably different in the sense that the trade-off between exports and FDI is made at an earlier stage (Pan, Tse (2000), the Uppsala school, Buckley, A. (1998)). It is necessary to bear in mind that the determinants of the entry mode decision for investors only must be interpreted as conditional on the firm having already decided to undertake foreign direct investment. This is also the case in the analyses of entry modes by Caves, Mehra (1986), Kogut, Singh (1988), Zejan (1990), Hennart, Park (1994), Barkema, Vermeulen (1998). It is, based on the present model, not possible to find out whether the attractiveness of determinants of entry mode alternatives stimulates firms to invest or not. The trade-off between non-investment (exports, as contractual agreements, for instance) and FDI is studied more elaborately in other earlier studies (Horst, 1971, Johansson, Vahlne (1977)) and we felt there was no gap to fill in that literature.

Only the investment mode of the investor's initial investment in Eastern Europe is studied. This does not reflect the distribution of entry modes of all investments in Eastern Europe. An extension for further research is the study of subsequent investments by the same investor (e.g. Chang, Rosenzweig, 2001). Our analysis of foreign investment entry mode decision is not complete, since the

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[90] The number of host countries (9) is also too high compared to the sample of 558 investors. The results would not be representative at all.

first entry mode cannot be made dependent on previous entry mode choices by the same firm in the same region. Operational experience is mainly non-investment experience before transition. The effect of one entry on subsequent entries in the future is also important. Decision specific experience is an additional factor to understand entry mode choices. Similar ownership structures and establishment modes beside general international experience and host country experience influence Japanese manufacturing investments (Padmanabhan, P., Cho, K.R. (1999). The attribute 'decision specific experience' can be measured by a count-years measure. In general, firms seem to be able to generate value from past experiences with similar entry modes ((Kogut, Zander (1995), Padmanabhan, Cho (1999)). The decreasing impact of host country and international experience on the parent's stock of knowledge and experience (measurement in logarithms) over time is not confirmed (Padmanabhan, Cho, 1999). As there is no consensus in the literature (Gomes, Casseres (1990), Padmanabhan, Cho, 1999) about the impact of experience on establishment mode choices, there might be moderating effects explaining the relationship between decision specific experience and entry mode choice. It is worth exploring why 'decision specific experience' does lead to replication of earlier entry mode decisions in some cases, while in other cases it does not.

Finally, as far as the dependent variable entry order is concerned, which is derived from the exact timing of entry as explained in IV.3.1.2. is debatable. The moment of investment is seen as the moment of first capital expenditure. This is common practice in this literature. A more process-oriented approach that investigates how managers/owners weight the advantages and disadvantages of different entry modes and ponder them to make an eventual entry mode decisions is needed. The distinction between owners and managers is not made. There is evidence that managers have a more valuable option to wait than owners in decentralized firms, in general (Grenadier, Wang, 2004). An extension for further research is the inclusion of decision maker specific factors in the explanation of the entry mode choice.

V.3.2. Discussion of the results

In this study, we sought to make a contribution to both ownership and establishment mode research through additions in theory development on the two choices, measurement of uncertainty, and research design. The study is situated within the tradition of transaction cost and real option theory to understand the simultaneous choice of ownership and establishment mode via a structural decision model. It links up with evolutionary theory or organisational learning theory in its analysis of the establishment mode decision and also takes into account global strategic considerations. Next, it is discussed to what an extent the main findings did or did not support the theoretical model proposed. Plausible explanations are given for the results. The discussion is structured according to the two types of entry mode decisions. Ownership results are commented upon first (V.3.2.1.). Subsequently, establishment mode results are discussed (V.3.2.2.).

V.3.2.1. Discussion of the determinants of ownership choices

The ownership decision is, as expected, determined by minimizing the transfer costs of transaction-specific assets[91], by experience, by uncertainty and by the global strategic positioning of the investor.

V.3.2.1.1. Transaction specific assets and ownership

First of all, the definition of specific assets as we defined them can be put into question. We

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[91] For transaction specific assets we find mixed evidence according to whether the assets are sales or technology intensive.

used R&D intensity and advertising-intensity as two measurements of the construct 'assets' here. An alternative is to consider only R&D intensity (as archival data) as asset specificity and to develop advertising intensity as a proxy for the construct 'free-riding potential' as in Zhao (2004). In any case, no matter what the construct is the measurement stands for, the impact on the ownership decision should be the same.

In line with previous models on ownership choice, higher control entry modes are generally believed to be necessary if heavily advertised brands are involved in the investment (Gatignon, Andersson (1988), Tan, Erramilli, Liang (2001), simply because the potential for free-riding is higher (Zhao, 2004)). This indicates that the arguments related to control and to fear of dissemination are confirmed for sales intensive assets[92].

Methodological improvements are possible to corroborate these findings. The measurement of advertising intensity is commonly used at the level of the investing mother company. However, a measurement of sales/advertising intensity of the investment project itself is a more accurate measure to capture the advertising content of the investment itself, since this can be different from the advertising content of investments elsewhere in the company. This is a question of data availability.

Unlike with advertising competence, there is no evidence of a relation between control and investments that make use of technology intensive assets to cover free-riding risk. Only in the sequential model (Table 23), we obtained weak confirmation that the tacit nature of technologically competitive assets leads to a lower ownership preference in the form of a joint venture. For research-intensive joint ventures, the risk of leakage of knowledge, within or between industries (Steurs, 1994) is well reported and it explains the existence of (international) joint venturing where partners share each other's knowledge under well-defined circumstances. This is not as straightforward an argument in the case of international joint ventures in relatively less technology intensive destination industries as the transition economies in the 1990s in Central and Eastern Europe (Chapter I).

The speed of reaction to be in the market as quickly as possible can play against taking ownership shares in partners when the asset is mainly technological. The adoption of sales related assets such as brands into new markets can be quicker than the introduction of the investor's technical procedures in technical installations in a joint venture abroad. It is an assumption that comes out of the observation of the results we obtained, but it needs to be studied whether the need for speedy entry increases the need for full ownership of investments that involve the transfer of sales related assets.

The role R&D assets play in the ownership decision is, as a matter of fact, still ambiguous. Some find no significant impact of R&D intensity (as a measurement of asset specificity) at all on the ownership choice (Davidson, McFetridge (1985), Hennart (1991), Hennart, Larimo (1998) as our results indicate). A second group of studies find that R&D assets push subsidiaries towards full control (Gatignon, Anderson (1988), Padmanabhan, Cho (1999), Chen, Hennart (2004)). The latter publication argues that full acquisitions are chosen when firms can execute negotiation and contracting costs better and finds support for this theory based on a sample of Japanese acquisitions in the U.S.. Still others (Kogut, Singh (1988), Erramilli (1991), Mutinelli, Piscitello (1998)) find the opposite effect, linking affinity for joint control with more R&D assets. Our results are in line with the first category and do not support the leakage argumentation. Gomes-Casseres (1989) argued that R&D intensity favours joint ventures only when the subsidiary is diversified from the parent. Proprietary product technology deters joint ventures in un-diversified subsidiaries, while possibly allowing them in diversified ones, precisely because leakage is in that case less probable. In the CEECs the type of activity the companies surveyed are active in, is their traditional industry, and not a diversified one. This may be part of the explanation for the lack of support for the joint venture thesis as well, although this must be further explored into depth. Diversification might act as a moderating factor in

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[92] It is not confirmed for technology intensive assets.

the relationship between asset specificity of the transfer and ownership choice.

The different effect of advertising and research-intensive investment on ownership rents (quasi-surplus) has consequences for the long-run division of authority and control of the quasi-surplus and the ex-ante investment in advertising/brands and R&D/technological assets of those (international) capital flows (Grossman, Hart, 1986). It means that foreign investors of advertising-intensive ventures benefit more from their ventures than do their counterparts in technology intensive ventures. Also, the fear of leakage of knowledge might be limited or relatively low in the beginning. The change of entry mode over time may follow a certain pattern according to the technology and brand content in local host country property, which is not studied yet here.

The contrasting explanatory power of transaction specific assets in the ownership decision is also confirmed when combined with the real option hypothesis (Hypothesis 7a) that the initially preferred form of ownership for technology intensive investments in the transition economies is joint ownership, especially if uncertainty is high. This result suggests that technology sensitive assets are inherently more irreversible than are sales-promotion/brand assets that are of a less tangible nature. This is a consideration that is not emphasised yet in the explanation of equity decisions.

Methodologically, some factors need to be taken into account. First, this result may be biased because it depends on the measurement of uncertainty that can be different from the way it is defined[93] here. Our definition has its roots in the concept of transactional uncertainty by Williamson in Schmalensee, Willig (1989). The weights of the combination of transaction-specific uncertainty and real uncertainty can be different and, as a result of that, bias the results. The separate impact of various types of uncertainty on entry mode is discussed below.

In a nutshell, we found that the ownership aspect of the entry mode choice is different for investors whose specific asset is technology/physical asset specificity compared to sales/brand name specificity. The leakage or free-riding argument for asset sharing does not hold here. In the case of technology intensive assets investors prefer joint ventures, but not on the basis of the leakage argument. It is possible that the industry they are active in within the new market matters for the ownership choice. In the case of sales intensive assets wholly owned subsidiaries will be preferred on the basis of the leakage of knowledge or speed of entry argumentation. Our results, hence, suggest that the number of R&D intensive investments in ventures in a transition economy is smaller than the number of sales/advertising intensive investments.

V.3.2.1.2. Uncertainty and ownership

Contractual uncertainty is the only type of uncertainty for which we predicted an effect on the ownership decision. It is typical of a transition context and stimulates full ownership. The results show that measurement matters.

As far as external uncertainty is concerned, the finding that the variability of market growth encourages joint ventures formation needs further development and consideration. It needs to be studied whether the same results are found in the quickly developing markets of India and China, once flexible exchange rates might further stimulate FDI in these regions.

When we measured contractual uncertainty as the variability in advancement in transition, it encourages higher equity ownership. When, on the other hand, we used corruption as a measure of contractual uncertainty, that effect was not confirmed. Corruption is the extent to which disputes with local partners cannot be fairly adjudicated. It is, in general, difficult to measure corruption. The measurement, undertaken by Transparency International at Göttingen, is based on perceptions by managers of leading MNCs of the climate for doing business and presence of corruption. It is,

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[93] see overview of measurements in Zhao (2004).

therefore, rather based on perception and not perfectly accurate.

We confront this result with Smarzynska, Wei (2000) who do not mention contractual uncertainty, but did investigate the effect of corruption on ownership choice of foreign investment. Their empirical test illustrates that an increase in corruption in Hungary towards the Azerbaijan level decreases the probability of a wholly owned subsidiary by 10-20%, i.e. it has the opposite effect of what we found for contractual uncertainty. This can be an indication that the local venture partner serves as a communication channel to corrupts 'agents' in local administration. This contradicting evidence suggests that contractual uncertainty is certainly not the same thing as corruption. Other transition-specific effects, as a matter of fact, did influence contractual uncertainty, measured by the variability of advancement in transition. The EBRD measure is a broad concept and includes advancement in privatisation and restructuring of enterprises and market liberalisation, the reform of financial institutions and the legal reform that are not captured and counterbalance the effect of other types of uncertainty.

V.3.2.1.3. Global strategic posture and ownership

The influence of the global strategic posture of the investor in general is often neglected, but is argued to be strong (Kim, Hwang (1992), let it be of minor importance for an ownership decision than uncertainty and a lack of local experience.

As far as the impact of the firm's global strategy is concerned, our analysis, following the Kim, Hwang (1992) methodology as close as possible, differs from it since the construct they defined was measured a bit differently. The potential for global synergies, the second out of the three measures for global strategic posture they defined, is not measurable in our case as an indicator of strategic concerns. What can be concluded from our analysis is that the two aspects of global concentration and global strategic motivations are pushing investors towards subsidiaries. Investors in industries with high concentration and, as a consequence of that, strong competitive pressure, like full control over their ventures in the CEE region. Contrary to the study by Padmanabhan and Cho (1999), that found no significant influence of global concentration on entry mode, in our study high domestic market share (as a proxy for global concentration) pushes towards wholly owned subsidiary formation.

The main push factor towards higher equity ownership has also something to do with the general investment strategy of the investor globally, beside investment specific concerns. If the 'local for global' motivation is related to low-labour cost seeking in offshore activities, it can be necessary to take a higher ownership percentage (and, hence, higher control) in order to make local output fit the requirements of the investor's production process at home, for which the product produced in CEE is an input. The relationship between FDI in finished product vis-à-vis FDI in components on the one hand and ownership choice on the other is useful for further research. Our evidence is in any case line with Kim, Hwang (1992) that an express incorporation of global strategic concerns, reflecting the envisaged strategic relationship between operations across borders, into the analysis of the entry mode decision is warranted.

V.3.2.1.4. Order of entry and ownership

The overall effect of timing on the ownership decision is not obvious. In our window of analysis (1989-1997) we could, with the sample at hand, not distinguish a trend in ownership choice over the period 1990-1998 in Eastern Europe. Meyer, Estrin (2001) and Estrin, Meyer (1999), adopting a sample and Bellak (2004) in Oxelheim, Ghauri (2004) using aggregated data observe an evolution in the mid-1990s towards liberalisation of foreign ownership rules in CEE, which explains a

gradual increase in the number of wholly owned subsidiaries over time. It is difficult to compare, since our data our first-ever investments by the 558 investors and the evolution of these investment projects is not included. All we can say is that there is not in general a relationship between the ownership choice and the fact of being a first mover, early or late follower in the industry.

A methodological shortcoming is the measurement of the order of entry. The 'rule of thumb' to use the year of entry to define whether a company is a first mover, early follower or late follower is of a practical type. The moment of the allowance for capital expenditure as given in the survey is the decisive moment for the timing of entry, but in reality this is of course the outcome of a negotiation process[94]. In any case, the absolute timing of entry is not relevant, but the timing relative to competitors.

The discrete categories 'first mover' (or pioneer), 'early follower' and 'late follower' (or late entrant) with a trigger[95] to distinguish between them are not the only possibility[96]. These triggers could have been determined endogenously in the model. Continuous time techniques of hazard and duration models allow for a more precise determination of, respectively, entry rate (failure time) or time until failure time, conditional on a more fine-tuned measurement of the dependent variable.

Besides, the order of entry is defined as the order of entry by manufacturing and service in the group of countries of CEE. This means that the concept of first mover advantage is determined by production rather than by entry by sales subsidiaries, that may compete with them. First mover advantages can also be realised through exports because the product is then already locally available. It is important to realise that the definition of the control variable in the present analysis does not capture this effect of a first presence in the market, but rather the first investor advantages. In this definition, the first mover advantage is a first producer advantage rather than a sales advantage and is measured accordingly.

V.3.2.2. Discussion of the determinants of establishment mode choices

The determinants of the establishment mode decision are specific types of assets, of experience and of uncertainty. It is influenced by sales promotion and not by technical assets, by operational experience and not by international experience, by external uncertainty and not by contractual uncertainty. Contrary to the ownership decision, global strategic concerns do not play a part in the establishment mode decision.

V.3.2.2.1. Transaction specific assets and establishment mode

Firms with highly R&D intensive assets firms prefer green-field investment, which is in line with the findings of Hennart, Park (1993), Andersson, Svensson (1994), Cho, Padabmanabhan (1995), Padmanabhan, Cho (1999), Brouthers, Brouthers (2000). Chang, Rosenzweig (2001) do not obtain a significant effect of R&D intensity on establishment mode, but their measure is also defined differently as the difference between firm level and U.S. industry level R&D intensity. The learning literature (Andersson, Svensson (1995), Barkema, Vermeulen (1998)) also argues that firms with strong technological capabilities can take less advantage of acquisitions. A first argument is that these acquired firms in Central and Eastern Europe have little technological capabilities to offer them. Second, if these firms have strong technological capabilities, Bettis, Prahalad (1995) point out that

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[94] This will be illustrated in the cases of Chapter VI.

[95] See chapter V for the cut-off rates between the categories. An alternative approach is to determine the cohorts of entry endogenously and use also a discrete variable or to use the hazard rate of entry as a continuous dependent variable.

[96] See Table 8 in Chapter 2 gives an overview of different ways to model the variable order and timing of entry.

organisational inertia may make it difficult to incorporate them in an existing firm (to be acquired) because they are entrenched in old routines. A possible alternative explanation might be that technical assets are not present in these host countries, and therefore, acquisitions make less sense and technical knowledge can only be implemented through a green-field investment.

Only exceptionally, sales-promotion competence is also treated and tested as a type of asset specificity. In the analysis of Japanese entrants in the U.S., Hennart and Park (1993) do not obtain a significant relationship between sales-promotion competence as asset specificity and establishment mode, but three quarters of their entrants are active in producer goods industries. It is argued that in producer goods industries, brand names are probably less crucial to commercial success and they are more transferable. Hence, producer goods industries can be expected to choose green-field entry, while companies in advertising intensive consumer industries cannot easily transfer their brands from Japan to the U.S. and, therefore, need to acquire a local U.S. company to ensure timely entry. A test in producer goods industries by Hennart, Park (1993) confirms that advertising intensity in those industries leads to green-field entry, as opposed to acquisition entry in consumer goods industries. Our result may be explained by the fact that in our sample consumer goods industries and services are more strongly represented. As a matter of fact, services and food and tobacco that are consumer oriented represent already 50,6 percent of the sample. What this points out is that the influence of the specific assets differs according to the industry the investor belongs to and that the evaluation of establishment mode choice is made according to different criteria, dependent on the nature of product entry. It may point out that a brand is of relatively minor importance in a producer industry than in a consumer goods industry.

V.3.2.2.2. Experience and establishment mode

Our result is in line with this conjecture. International experience effects on establishment mode are pronounced in favour of green-field investment, with strong results in Table 22 for the sequential estimation.

The explanation is, thus, in line with the reasoning that firms with more international experience have built up firm-specific advantages that are embedded in their labour forces. Green-field investment is the most efficient way to transfer these firm-specific advantages abroad (Hennart, Park (1993)). Thanks to international experience the firm-specific advantage can be more easily incorporated in the new labour force of a green-field investment. The parallel argument of the learning literature in favour of a positive influence of international experience on green-field investment is that an acquired company suffers from organisational attitudes of inertia that prevent easy adaptation to the technological knowledge structure of a firm with a lot of international experience (Barkema, Vermeulen (1998)).

Independent of the measurement, whether numbers of countries in which the firm had established subsidiaries (Barkema, Vermeulen, 1998, Caves, Mehra (1986), Kogut, Singh (1988)) or the count-years of general international business experience (Padmanabhan, Cho, 1999) are taken as a measure, whether in terms of production as in our case or sales (Chang, Rosenzweig (2001)), the recent literature supports the positive effect of international experience on green-field investment.

V.3.2.2.3. Uncertainty and establishment mode

The translation of industry level variables such as the variability of industry growth in external uncertainty and the relation of host country experience and cultural distance with contractual uncertainty allows us to relate our results to earlier empirical studies that are based on other theories, but use the same measurements. Based on the types of uncertainty distinguished by Williamson, we

showed that different types of uncertainty have divergent effects on the necessity for internalisation, also in the case of an establishment mode decision. The results will be discussed in the following order: first, operational uncertainty, then, external uncertainty and finally, contractual uncertainty.

Operational uncertainty

The result is at odds with the hypothesised effect. There is some difference with earlier tests. We measured operational uncertainty as the cultural distance divided by the years of local host experience +1. The hypothesis was that cultural distance leads to green-field choice (Kogut, Singh, 1988, Barkema, Vermeulen (1998), Brouthers, Brouthers (2000), Chang, Rosenzweig (2001)) and more host country experience results in acquisition (Andersson, Svensson (1994), Barkema, Vermeulen (1998)). We defined this interaction as a measurement of operational uncertainty, based on the idea that effective local (sales) experience can overcome cultural distance and cultural proximity compensates a lack of local sales experience, leading to less operational uncertainty. Our result differs from the existing literature and empirical evidence.

One element to provide an explanation is that host country experience in our sample of Eastern European countries is different from traditional investment experience. In Eastern Europe there was hardly any investment experience, since FDI was virtually banned. Foreign investment was hardly feasible before liberalisation and, if present, was of very minor scope. For local experience in Eastern Europe, we use historical and trade contacts that were already present before entry.

A second deviation compared to some previous research is the measure of local experience in years. We measured local experience in terms of count-years instead of the number of previous entries in the host country (Barkema, Vermeulen (1998), Kogut, Singh (1988)).

Apart from the difference in measurement with earlier results in some cases, the preference for green-field investment by more 'knowledgeable' investors might be related to the peculiarities of the sample. Brouthers, Brouthers (2000) is comparable in the sense that their data are also establishment modes in transition economies. A prerequisite for acquisitions is the privatisation of the candidate in the emerging economies. It is possible that companies that had more operational experience did not wait for this and therefore set up a green-field start-up as their first investment mode. Evidence of the effect of local experience on establishment mode is in any case mixed (Hennart, Park (1993) and Kogut, Singh (1988) found no significant effect and measured both the nominator and the denominator of our operational uncertainty construct).

External uncertainty

The impact of external uncertainty is not well documented in the literature. We define external uncertainty as variability of growth of the target CEE industry. This is in line with the transaction cost argument that transaction costs of a green-field investment are raised with high demand volatility (Meyer (1998)). The capacity a green-field investment adds is difficult to adjust to a very variable demand. By an acquisition, competition is reduced and the adaptation to the variable demand conditions is faster.

Most of the literature only discusses high and low growth. The result that firms belonging to industries with extreme growth (very low and very high growth) establish acquisitions rather than green-field investments is in line with Hennart, Park (1993), and Caves, Mehra (1986). Hennart, Park (1993) find that both very high and very low industry growth stimulates acquisitions, based on merger and acquisition theory. In case of slow growth green-field entry is not optimal since it involves the addition of capacity and depresses profits. Existing business assets are devalued and this is an

argument of merger and acquisition theory to encourage acquisition. Caves, Mehra (1986) argue that slow growth reduces the return expected from adding new capacity and therefore green-field investment is not chosen. Besides, in the case of high growth speedy acquisition entry is required, because competition is fierce.

Our results confirm this way of thinking. We also tested for the influence of the size of industry growth, which does not reflect external uncertainty anymore, but has some support in the literature. Industry growth, measured in different ways, had no significant impact on the establishment mode.

Contractual uncertainty

We adopted a measurement of contractual uncertainty that is typical of the transition economies, more precisely the variation in advancement in transition in the host country. It is only significant in the sequential model for the variability in advancement in transition, and not for the corruption measure of Transparency International. There are no previous studies to compare this with.

V.3.2.2.4. Strategic posture and establishment mode

Global concentration

The positive relationship between market power and green-field investment is not confirmed. Typical market power, measured as domestic market share, is not significant. Cho, Padmanabhan (1995) and Padmanabhan, Cho (1999) tested this without any significant results.

Global strategic motivations

The rejection of the hypothesis concerning the effect of global strategy motivations as 'local for global' or 'local for local' (Bartlett, Goshal) on establishment mode merits further discussion. We had expected that a 'local for global' disposition pushes firms towards green-field investment, since they merely search for resources, produce for export purposes and standardize production easily by setting up a green-field investment. However, global firms are not necessarily resource seeking. Parallel to that, multi-domestic firms are not necessarily market-seeking.

If one assumes that a 'local for global' motivation is a proxy for low-cost seeking, we observe the following. Low-cost seeking increasingly leads to non-FDI in the form of off-shoring. Off-shoring, also labelled international production sharing, means that the goods of the owned or partly owned company abroad are used in the domestic production process. What is typical of off-shoring is that new (green-field) factories abroad are established that produce themselves these inputs. If 'local for global' is gradually leading to off-shoring instead of FDI, it is possible that we do not capture the link between green-field and the cost seeking motivation with data on FDI. For low cost seeking, the 'local for global' motivation does not always lead to FDI, but more to off-shoring of components. In the CEECs, beside FDI, a lot of contractual off-shoring of inputs takes place as an alternative to production of finished products with a 'local for global' motivation and this off-shoring increasingly replaces FDI (IMF, 2005). This might explain why 'local for global' in the sense of low cost seeking does not lead to green-field investment.

Second, multinational companies often strive for the two goals simultaneously when choosing a location for their affiliates: both expanding market share and attaining cost advantages. This can also be an explanation.

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Third, whereas initially, a low labour cost seeking motive was in place, gradually, labour cost differentials between Western and Eastern Europe are not high enough to justify low cost seeking FDI in the CEECs. This might also explain that there is no clear effect of the global motivation on the establishment mode.

V.4. CONCLUSION

We analysed the first investment mode choices by 558 EC-15 multinational firms in Eastern Europe. Therefore, we tried to understand the ownership and establishment mode dimensions of these first investment entry mode decisions.

We basically searched for an answer on two fundamental research questions. The first important question we tried to answer concerned the determinants of initial entry modes. Second, we want to know whether there is empirical support that joint ventures are chosen as a decision to stay flexible. Joint ventures would appear in conditions of highly irreversible investments, especially in the presence of high uncertainty that was present in transition economies.

We can conclude, first, that the determinants that drive the ownership decision in the 1990s in the CEECs are the sales intensive assets, the factors of global strategic nature and a transition specific contractual uncertainty. The effect of transaction specific assets is different for technological vs. sales competence. Investors with sales intensive projects tend to prefer full ownership, whereas research-intensive investors do not show a pattern. Firms with more market power and resource seeking investors tend to form wholly owned subsidiaries rather than joint ventures. Specific to the transition context is the impact of high contractual uncertainty that encourages more wholly owned subsidiary formation. With respect to the second research question, it was found that investors with higher endogenous sunk costs prefer joint rather than single venturing especially in the presence of high uncertainty.

Conceptualising the firm's establishment mode decision in the 1990s in the CEECs as a matter of organisational experience receives strong support in our analysis. Transaction specific assets also discriminate between establishment modes in a clear-cut direction. Both types of experience, multinational diversity and local operational experience encourage green-field rather than acquisition decisions. The role of assets is clarified. The more firm-specific advantages are linked to technical expertise, the higher the probability of green-field investments. On the contrary, if sales promotion transaction-specific assets need to be transferred, firms choose acquisitions. Brands are acquired together with the acquired firm in view of timely entry, especially in consumer good industries. It seems to suggest that, whereas technical expertise is so deeply embedded in the firm's labour force that it can only be transferred in a green-field investment, sales competence can be separated from the firm as an organisation and is more linked to a local territory. Sales competence involves brands and their loyalty and knowledge of local market by sales personnel and potential clients.

External (demand) uncertainty leads to acquisition of existing capacity in the form of an acquisition. Contractual uncertainty, if measured as variability in advancement in transition, stimulates to go it alone in a green-field investment project. Typically in Eastern Europe in the 1990s, privatisation of companies has an accelerating effect on acquisition opportunities and competitive uncertainty in the Eastern European market dissuades investors from making acquisitions.

Finally, global strategic concerns play a role. Global strategic motivations have a different than expected effect on the establishment mode decision.

Figure 14 summarizes the characteristics per entry mode.

Figure 14: Summary of the characteristics of entry mode choices that come out of the estimations

	acquisition		green-field
			high R&D
wholly owned subsidiary	high global concentration local for global	high advertising	high international experience high operational experience high contractual uncertainty
joint venture	high irreversibility*uncertainty	high external uncertainty	

Wholly owned acquisitions are typical of firms with a high advertising competence that are motivated by a 'local for global' motivation to invest and that are part of industries with high global concentration. A joint venture acquisition is chosen when the investment is highly irreversible and there is high uncertainty and in circumstances of high external uncertainty. A wholly owned green-field investment is typical in the case of firms with high technological competence, high international and operational experience and under circumstances of high contractual uncertainty.

Table 17: Overview of the hypotheses of the empirical model of entry mode

construct	variable	hypothesis	hypothesized ownership choice effect	hypothesized establishment mode effect
asset specificity	technical competence	H1a: Firms with a high internal technical competence will enter new markets through wholly owned subsidiaries rather than through joint ventures.	+	
		H1b: Firms with a high internal technical competence will enter new markets through green-field investments rather than through acquisitions.		+
	sales-promotion competence	H2a: Firms with a high sales-promotion competence will rather enter new markets by wholly owned subsidiaries than by joint ventures.	+	
		H2b: Firms with a high sales-promotion competence will rather enter new markets by acquisition investment than by green-field investment.		-
experience	international experience	H3: Firms with more international experience are more likely to enter new markets by acquisition rather than by green-field investment.		-
		H3*: Firms with more international experience are more likely to enter new markets by green-field investment rather than by acquisition.		+
	operational experience	H4: Firms with more operational experience are more likely to enter new markets by acquisition rather than by green-field investment.		-
		H4*: Firms with more operational experience are more likely to enter new markets by green-field rather than by acquisition investment.		+
uncertainty	external market uncertainty	H5: External market uncertainty increases the likelihood that a firm will enter new markets by acquisition rather than by green-field investment		-

construct	variable	hypothesis	hypothesized ownership choice effect	hypothesized establishment mode effect
	contractual uncertainty	H6a: Higher contractual uncertainty increases the likelihood that a firm will enter new markets by a wholly owned subsidiary rather than by a joint venture.	+	
		H6b: Higher contractual uncertainty increases the likelihood that a firm will enter new markets by green-field investment rather than by acquisition.		+
irreversibility and option value		H7: Firms with higher endogenous irreversible costs (sunk tangible assets, sales-promotion competence and/or technology competence) will prefer joint venture over wholly owned subsidiary especially in the presence of high uncertainty.	-	
	global concentration	H8a: The greater the market power of the firm, the higher the likelihood that it will enter new markets by wholly owned subsidiary rather than by joint venture.	+	
strategic posture		H8b: The higher the market power of he firm, the higher the likelihood that it will enter new markets by green-field investment rather than by acquisitions.		+
	global strategic motivation	H9: Firms that pursue a 'local for global' strategy of global integration (resource-seeking) will enter new markets through green-field investment rather than acquisition.		+

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Table 18: Means, standard deviations, and correlations[a]

	mean	s.d.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. International experience	0.31	0.26	1														
2. Domestic market share	0.14	0.10	0.19**	1													
3. R&D intensity	0.05	0.04	0.23**	0.01	1												
4. Advertising intensity	0.11	0.09	-0.07	0.19**	-0.16**	1											
5. External uncertainty	0.04	0.03	-0.39**	-0.26**	-0.11**	-0.01	1										
6. Operational uncertainty	0.21	0.21	-0.34**	-0.22**	-0.02	-0.04	0.39**	1									
7. Contractual uncertainty	0.02	0.01	0.36**	0.18**	0.18**	-0.01	-0.37**	-0.34**	1								
8. Corruption	4.60	1.16	-0.00	0.01	-0.01	-0.02	0.01	-0.05	0.04	1							
9. Competitive uncertainty	0.04	0.05	0.03	0.01	-0.1	-0.04	-0.06	-0.06	-0.026	-0.13**	1						
10. local for global	0.20	0.40	0.13**	0.05	0.14**	0.07	-0.12**	0.02	0.15**	-0.00	-0.04	1					
11. Time (log)	0.49	0.28	0.05	-0.02	0.03	-0.12**	0.03	0.04	0.02	0.00	-0.08	0.03	1				
12. Relative research base host country	1.91	1.31	0.00	-0.08	0.11**	-0.08*	0.00	-0.00	-0.008	-0.05	-0.05	-0.00	0.04	1			
13. Advancement in privatisation	0.41	0.15	0.02	0.04	-0.02	-0.04	-0.03	-0.06	0.01	0.03	0.07	-0.05	0.02	0.00	1		
14. Labour cost host country	1.45	1.56	-0.02	0.03	-0.07	-0.01	-0.02	-0.08	0.00	0.11	0.00	-0.01	0.10	0.06	0.35**	1	
15. Irreversibility	0.31	0.26	0.13**	0.13**	0.41**	-0.12**	-0.19**	-0.21**	0.15**	0.03	0.06	0.01	-0.07	-0.05	0.07	0.07	1

[a]=558. Correlations with an absolute value greater than 0.05 are significant; **for correlations that are significant at a 0.01 level. *for correlations that are significant at a 0.10 level.

Table 19: Means, standard deviations, and meaningful correlations[a]

	mean	s.d.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. International experience	0.31	0.26	1														
2. Domestic market share	0.14	0.10	**0.19****	1													
3. R&D intensity	0.05	0.04	**0.23****	0.01	1												
4. Advertising intensity	0.11	0.09	-0.07	**0.19****	**-0.16****	1											
5. External uncertainty	0.04	0.03					1										
6. Operational uncertainty	0.21	0.21	**-0.34****	**-0.22****	-0.02	-0.04		1									
7. Contractual uncertainty	0.02	0.01					**-0.37****		1								
8. Corruption	4.60	1.16					0.01		0.04	1							
9. Competitive uncertainty	0.04	0.05					-0.06		-0.026	**-0.13****	1						
10. local for global	0.20	0.40	**0.13****	0.05	**0.14****	0.07		0.02				1					
11. Time (log)	0.49	0.28	0.05	-0.02	0.03	**-0.12****	0.03	0.04	0.02	0.00	-0.08	0.03	1				
12. Relative research base host country	1.91	1.31					0.00		-0.008	-0.05	-0.05		0.04	1			
13. Advancement in privatisation	0.41	0.15					-0.03		0.01	0.03	0.07		0.02	0.00	1		
14. Labour cost host country	1.45	1.56					-0.02		0.00	0.11	0.00		0.10	0.06	**0.35****	1	
15. Irreversibility	0.31	0.26	**0.13****	**0.13****	**0.41****	**-0.12****		**-0.21****				0.01	-0.07				1

[a]=558. Correlations with an absolute value greater than 0.05 are significant; **for correlations that are significant at a 0.01 level. *for correlations that are significant at a 0.10 level.

Table 20: Empirical results: Multinomial logit model of entry mode (in logarithms)- model 1

model 1	wholly owned green-field vs. joint venture green-field (N=201)	wholly owned acquisition vs. joint venture green-field (N=132)	joint venture acquisition vs. joint venture green-field (N=142)	wholly owned green-field vs. joint venture acquisition (N=201)	wholly owned acquisition vs. joint venture acquisition (N=132)	wholly owned green-field vs. wholly owned acquisition (N=201)
	(a) comparison with joint venture green-field			(b) comparison with joint venture acquisition		(c) comparison with wholly owned acquisition
R&D intensity	0.819*	-0.87**	-0.625*	1.393***	-0.247	1.640***
	(1.8)	(-2.22)	(-1.69)	(3.22)	(0.320)	(4.36)
advertising intensity	1.798***	3.283***	0.746**	0.978**	2.547***	-1.569***
	(4.25)	(7.01)	(2.03)	(2.26)	(5.67)	(-3.72)
multinational diversity	2.64***	0.314	-0.718*	3.435***	0.991***	2.444***
	(5.4)	(0.74)	(-1.72)	(7.20)	(2.70)	(6.11)
operational experience	1.205***	-0.456	-1.423***	2.654***	0.972***	1.683***
	(3.22)	(-1.22)	(-3.72)	(6.51)	(2.64)	(5.12)
external uncertainty	-1.985***	-0.713*	1.340***	-3.287***	-1.987***	-1.300***
	(-4.69)	(-1.78)	(3.04)	(-7.16)	(-4.95)	(-3.81)
contractual uncertainty	2.482***	1.149***	-0.402	2.882***	1.543***	1.339***
	(5.53)	(2.78)	(-1.11)	(6.51)	(4.07)	(3.44)
corruption	-0.882	-2.434	-0.995	0.148	-1.541	1.689
	(-0.57)	(-1.56)	(-0.62)	(0.10)	(-1.08)	(1.54)
competitive uncertainty	-0.275	0.177	0.143	-0.430*	0.026	-0.456**
	(-1.12)	(0.73)	(0.61)	(-1.75)	(0.12)	(-2.20)
typical market share	2.370***	1.829***	0.504	1.851***	1.368***	0.484
	(5.43)	(4.61)	(1.5)	(4.16)	(3.54)	(1.27)
local for global	2.181***	2.351***	0.876	1.307**	1.486***	-0.179
	(3.22)	(3.58)	(1.29)	(2.56)	(3.22)	(-0.50)
first mover	0.638	0.339	0.214	0.534	-0.247	0.780
	(1.00)	(0.58)	(0.740)	(0.32)	(-0.51)	(1.79)
early follower	0.767	0.390	0.355	0.425	-0.144	0.570
	(1.62)	(0.404)	(0.448)	(1.04)	(-0.40)	(1.64)
sectoral R&D base ratio	-0.243	-0.227	-0.057	-0.221	-0.214	-0.007
	(-1.02)	(-0.94)	(-0.24)	(-0.95)	(-0.95)	(-0.04)
advancement in privatisation host country	-0.462	-0.026	-0.036	-0.434	0.012	-0.446
	(-1.02)	(-0.06)	(-0.09)	(-1.04)	(0.03)	(-1.30)
unit labour cost ratio	0.625	1.023***	-0.851**	-0.286	0.178	0.464*
	(1.63)	(2.75)	(-2.33)	(-0.91)	(0.64)	(1.82)
former Eastern Germany	.	-0.611	0.219	-0.637	-0.913	0.276
		(-0.17)	(0.06)	(-0.51)	(-0.77)	(0.28)
Hungary	-0.811	0.751	-0.694	0.466	0.653	-0.187
	(-0.589)	(0.49)	(-0.49)	(1.08)	(1.76)	(-0.53)
Czech Republic	-1.013	0.351	-0.319	-0.220	-0.086	-0.134
	(-0.528)	(0.21)	(-0.21)	(-0.30)	(-0.13)	(-0.24)

Slovak Republic	.	.	.	0.399	-0.807	1.205
				(0.28)	(-0.63)	(0.84)
Slovenia	-1.823	-35.237	-0.721	-0.388	-43.322	20.935***
	(-0.491)	(0.00)	(-0.38)	-0.19	(-0.00)	(9.82)
Russia	-20.212	-20.326	-20.544***	0.383	0.109	0.274
	(0.00)	(0.00)	(-11.9)	(0.35)	(0.10)	(0.30)
Rumania	-22.907	-22.085	-23.159***	0.268	0.854	-0.586
	(0.00)	(-13.92)	(-11)	(0.21)	(0.87)	-0.56
Bulgaria	.	.	-21.089***	0.100	-0.156	0.257
			-8.86)	(0.03)	(-0.10)	(0.07)
food	0.927	0.791	0.961	0.781	0.385	0.396
	(-0.526)	(0.62)	(0.74)	(0.85)	(0.48)	(0.56)
textiles	1.555	1.639	2.675*	-0.306	-0.584	0.278
	(0.343)	(1.09)	(1.78)	(-0.28)	(-0.59)	(0.29)
paper	0.828	0.991	0.171	1.492	1.427	0.065
	(0.618)	(0.66)	(0.11)	(1.24)	(1.31)	(0.08)
chemical	0.853	0.643	0.575	1.064	0.624	0.441
	(0.568)	(0.49)	(0.42)	(1.06)	(0.72)	(0.57)
minerals	0.525	0.273	-0.292	1.627	1.087	0.540
	(0.724)	(0.21)	(-0.22)	(1.58)	(1.21)	(0.69)
machinery	1.289	1.258	1.839	0.346	-0.013	0.359
	(0.434)	(0.86)	(1.26)	(0.32)	(-0.01)	(0.42)
vehicles	0.155	-0.734	0.510	0.374	-0.743	1.117
	(0.923)	(-0.51)	(0.38)	(0.30)	(-0.69)	(1.00)
electricity	1.670	2.101	-33.417	22.843	22.956	-0.113
	(0.44)	(1.05)	(0.00)	.	(21.45)	(-0.11)
construction	1.098	1.334	1.521	0.443	0.317	0.126
	(0.557)	(0.82)	(0.95)	(0.35)	(0.31)	(0.12)
service	1.627	1.495	1.913	0.435	0.162	0.273
	(0.27)	(1.16)	(1.44)	(0.47)	(0.20)	(0.39)
intercept	28.273***	28.410***	23.743***	2.992	4.424**	-1.431
	(19.44)	(10.49)	(7.97)	(1.43)	(2.39)	(-0.83)
goodness-of-fit-statistic						
log-likelihood	-423.668***					
Chi-squared	651.08***					
df	99					
Cox and Snell pseudo R^2	0.433					

N=558; wholly owned greenfield = 1, wholly owned acquisition = 2; joint venture acquisition = 3; joint venture greenfield = 4 p<0.1;**p<0.05;***p<0.01; the numbers are parameter estimates; figures between parentheses are t-values; dummy variables for country of origin are controlled for, but dropped in the table.

Table 21: Multinomial logit model of entry mode (in logarithms) – model 2

model 2	wholly owned green-field vs. joint venture green-field (N=201)	wholly owned acquisition vs. joint venture green-field (N=132)	joint venture acquisition vs. joint venture green-field (N=142)	wholly owned green-field vs. joint venture acquisition (N=201)	wholly owned acquisition vs. joint venture acquisition (N=132)	wholly owned green-field vs. wholly owned acquisition (N=201)
	(a) comparison with joint venture green-field			(b) comparison with joint venture acquisition		(c) comparison with wholly owned acquisition
R&D intensity	0.809*	-0.677**	-0.576	3.468	0.912*	2.555***
	(1.7)	(-2.24)	(-1.47)	(5.26)	(1.81)	(4.73)
advertising intensity	2.600***	2.493***	0.124	2.227***	2.344***	-0.117
	(3.47)	(3.9)	(0.24)	(3.03)	(3.98)	(-0.18)
multinational diversity	2.572***	0.189	-0.829*	3.542	1.000***	2.541***
	(4.63)	(0.41)	(-1.88)	(6.66)	(2.60)	(5.77)
operational experience	1.408***	-0.398	-1.264***	2.706***	0.857**	1.850***
	(3.39***)	(-0.381)	(-3.38)	(6.02)	(2.20)	(-5.13)
external uncertainty	-2.072***	-0.616	1.170**	-3.244	-1.718***	-1.527***
	(-4.5)	(-1.51)	(2.75)	(6.69)	(-4.30)	(-4.07)
contractual uncertainty	2.503***	1.273***	-0.365	2.892***	1.635***	1.257***
	(5.03)	(2.82)	(-0.94)	(5.84)	(3.83)	(3.09)
corruption	-0.462	-1.964	-0.984	0.503	-1.021	1.524
	(-0.26)	(-1.18)	(-0.58)	(0.29)	(-0.66)	(1.24)
competitive uncertainty	-0.240	0.254	0.157	-0.426	0.084	-0.510
	(-0.84)	(0.98)	(0.66)	(-1.50)	(0.35)	(-2.20)
irreversibility*uncertainty	-3.223***	-1.301***	-0.278	-3.522	-1.595	-1.927
	(-6.01)	(-2.8)	(-0.69)	(-6.64)	(-3.66)	(-4.41)
R&D intensity*uncertainty	2.474	-0.145	-1.073**	-3.468***	0.912	2.555***
	(3.62)	(-0.26)	(-2.04)	(-5.26)	(1.81)	(4.73)
advertising intensity*uncertainty	-0.604	0.997***	0.571	-1.083**	0.427	-1.510***
	(-0.149)	(2.43)	(1.51)	(-2.22)	(1.23)	(-3.65)
typical market share	2.50***	1.821***	0.474	2.020***	1.369***	0.651
	(5.05)	(4.31)	(1.34)	(3.96)	(3.25)	(1.56)
local for global	2.036***	2.390***	0.744	1.328**	1.662***	-0.334
	(2.79)	(3.49)	(1.06)	(2.31)	(3.35)	(-0.86)
first mover	1.087	0.444	0.046	0.715	-0.104	0.819
	(0.13)	(0.508)	(0.949)	(1.14)	(-0.19)	(1.67)
early follower	1.019	0.399	0.285	0.641	-0.069	0.709*
	(0.049)	(0.417)	(0.576)	(1.38)	(-0.18)	(1.88)
sectoral R&D base ratio	-0.323	-0.221	-0.101	-0.293	-0.164	-0.129
	(-1.14)	(-0.82)	(-0.39)	(-1.06)	(-0.66)	(-0.60)
advancement in privatisation host country	-0.955	-0.409	-0.149	-0.869	-0.251	-0.617
	(-1.77)	(-0.85)	(-0.34)	(-1.70)	(-0.59)	(-1.53)

model 2	wholly owned green-field vs. joint venture green-field (N=201)	wholly owned acquisition vs. joint venture green-field (N=132)	joint venture acquisition vs. joint venture green-field (N=142)	wholly owned green-field vs. joint venture acquisition (N=201)	wholly owned acquisition vs. joint venture acquisition (N=132)	wholly owned green-field vs. wholly owned acquisition (N=201)
	(a) comparison with joint venture green-field			(b) comparison with joint venture acquisition		(c) comparison with wholly owned acquisition
unit labour cost ratio	0.867**	-1.256***	-0.909**	-0.088	0.346	0.434
	(1.98)	(-3.08)	(-2.34)	(-0.23)	(1.03)	(1.59)
former Eastern Germany	.	.	0.376	0.455	0.288	0.167
			(0.27)	(0.16)	(0.11)	(0.17)
Hungary	0.180	1.592	-0.401	0.561	0.630	-0.069
	(0.11)	(0.99)	(-0.29)	(1.17)	(1.61)	(-0.18)
Czech Republic	-0.093	1.322	-0.192	-0.154	0.165	-0.319
	(-0.05)	(0.76)	(-0.13)	(-0.18)	(0.22)	(-0.51)
Slovak Republic	.	.	.	-0.322	-1.403	1.081
				(-0.20)	(-1.02)	(0.71)
Slovenia	-1.074	-38.884	-0.290	-0.598	-41.999	20.401
	(-0.18)	(0.00)	(-0.15)	(-0.12)	(0.00)	(3.97)
Russia	-15.973***	-16.351	-16.427***	0.420	0.306	0.115
	(-4.63)	(-4.7)	(-3.76)	(0.35)	(0.27)	(0.12)
Rumania	-19.918***	-18.769	-19.733***	-0.222	1.102	-1.324
	(-6.1)	(-5.74)	(-4.74)	(-0.14)	(0.98)	(-1.00)
Bulgaria	1.179	6.515	6.439	0.705	0.259	0.446
	(0.16)	(1.39)	(1.17)	(0.14)	(0.15)	(0.09)
food	0.675	1.029	0.923	0.853	0.597	0.256
	(0.42)	(0.8)	(0.7)	(0.81)	(0.72)	(0.31)
textiles	0.567	1.716	2.723*	-1.116	-0.613	-0.504
	(0.32)	(1.13)	(1.8)	(-0.86)	(-0.59)	(-0.47)
paper	0.350	1.215	0.364	1.045	1.402	-0.356
	(0.19)	(0.78)	(0.23)	(0.75)	(1.17)	(-0.36)
chemical	0.872	0.977	0.613	1.228	0.831	0.398
	(0.53)	(0.72)	(0.44)	(1.08)	(0.93)	(0.46)
minerals	0.093	0.684	-0.491	1.659	1.652	0.006
	(0.06)	(0.52)	(-0.37)	(1.38)	(1.70)	(0.01)
machinery	1.560	1.911	1.756	0.895	0.626	0.269
	(0.88)	(1.29)	(1.2)	(0.72)	(0.62)	(0.28)
vehicles	0.293	-0.183	0.373	0.831	-0.103	0.938
	(0.17)	(-0.13)	(0.27)	(0.57)	(-0.09)	(0.72)
electricity	1.273	2.590	-38.625	22.800	23.570	-0.770
	(0.57)	(1.33)	(0.00)	.	19.58	(-0.64)
construction	-0.317	0.849	1.522	-0.643	-0.193	-0.451
	(-0.16)	(0.51)	(0.94)	(-0.46)	(-0.18)	(-0.40)

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model 2	wholly owned green-field vs. joint venture green-field (N=201)	wholly owned acquisition vs. joint venture green-field (N=132)	joint venture acquisition vs. joint venture green-field (N=142)	wholly owned green-field vs. joint venture acquisition (N=201)	wholly owned acquisition vs. joint venture acquisition (N=132)	wholly owned green-field vs. wholly owned acquisition (N=201)
	(a) comparison with joint venture green-field			(b) comparison with joint venture acquisition		(c) comparison with wholly owned acquisition
service	1.619	1.627	1.861	0.684	0.269	0.415
	(1.00)	(1.25)	(1.4)	(0.65)	(0.32)	(0.51)
intercept	29.635***	27.431***	18.377***	9.345***	8.465	0.879
	(20.36)	(11.31)	(4.55)	(3.65)	(3.92)	(0.44)
goodness-of-fit statistic						
log-likelihood	-373.552***					
chi-squared	751.90***					
df	105					
Cox and Snell pseudo R^2	0.500					

N=558; wholly owned greenfield = 1, wholly owned acquisition = 2; joint venture acquisition = 3; joint venture green-field = 4 p<0.1;**p<0.05;***p<0.01the numbers are parameter estimates; figures between parentheses are t-values; .in model 1 and 2, dummy variables for country of origin are not shown, but controlled for.

Table 22: Marginal effects of the variables on the probability of each entry mode

	wholly owned green-field	wholly owned acquisition	joint venture acquisition	joint venture green-field
R&D intensity	1.06	-0.51	-0.53	0.00
advertising intensity	0.36	0.62	-0.46	-0.53
international experience	0.97	-0.37	-0.55	-0.06
operational experience	0.85	-0.38	-0.63	0.17
external uncertainty	-0.78	-0.08	0.79	0.06
contractual uncertainty	0.75	0.07	-0.60	-0.22
sunk tangible assets*uncertainty	-0.92	0.07	0.54	0.31
R&D expenses*uncertainty	-1.21	0.59	0.61	0.01
advertising expenses*uncertainty	-0.96	1.04	0.22	-0.29
market share	0.41	0.39	-0.28	-0.52
local for global	0.06	0.59	-0.22	-0.43
unit labour cost ratio host country	-0.07	0.31	0.19	-0.42

Each cell shows the change in probability of choosing an entry mode in response to a standard deviation increase in each variable, holding the other variables at their means.

Table 23: Results of the hierarchical/sequential logit analysis of entry mode

	model 1			model 2		
	wholly owned subsidiary versus joint venture	wholly owned greenfield versus wholly owned acquisition	joint venture greenfield versus joint venture acquisition	wholly owned subsidiary versus joint venture	wholly owned greenfield versus wholly owned acquisition	joint venture greenfield versus joint venture acquisition
R&D intensity	-8.094	52.351***	28.337**	-9.694	53.35***	29.597*
	(5.784)	(12.611)	(11.787)	(6.569)	(20.107)	(13.71)
advertising intensity	16.188***	-16.032***	-48.446***	20.525***	-24.125***	-50.627***
	(3.028)	(4.331)	(13.643)	(3.747)	(8.351)	(15.095)
multinational diversity	5.181***	8.675***	18.661***	3.981***	10.852***	18.831***
	(1.163)	(1.807)	(5.702)	(1.288)	(3.047)	(5.834)
operational experience	2.959***	17.852***	7.545***	1.42	24.654***	5.257**
	(1.14)	(3.747)	(2.228)	(1.221)	(6.541)	(2.216)
external uncertainty	-52.366***	-126.214***	-50.379***	-47.404***	-144.581***	-19.652***
	(8.644)	(29.331)	(20.038)	(9.334)	(44.339)	(7.861)
contractual uncertainty	115.926***	160.418***	332.232***	111.672***	296.468***	322.304***
	(23.842)	(35.931)	(93.071)	(28.812)	(90.227)	(109.182)
corruption	-0.123	0.577	0.844	-0.113	0.679	0.734
	(0.187)	(0.454)	(0.536)	(0.196)	(0.443)	(0.552)
competitive uncertainty	-7.362*	5.723	18.883**	-7.495	12.733	26.977***
	(4.093)	(7.035)	(9.131)	(4.769)	(10.238)	(10.396)
irreversibility				1.552	-3.016	-0.297
				(1.123)	(2.502)	(2.671)
irreversibility*uncertainty				-5.62*	-6.374***	-18.415***
				(1.435)	(2.502)	(5.213)
R&D intensity*uncertainty				-57.006**	-206.923**	-262.154**
				(28.869)	(66.249)	(106.969)
advertising intensity*uncertainty				-0.657	0.213	-0.227
				(0.583)	(1.792)	(0.667)
typical market share	15.666***	3.802	-3.45	14.697***	4.309	-0.924
	(2.568)	(2.968)	(8.451)	(2.788)	(4.402)	(8.238)
local for global	2.093***	-0.716	0.347	2.151***	-2.785**	-1.536
	(0.564)	(0.688)	(1.702)	(0.61)	(1.333)	(1.712)
first mover	0.37	0.425	-0.106	0.589	0.284	-0.908
	(0.687)	(1.149)	(1.447)	(0.771)	(1.713)	(1.369)
sectoral R&D base ratio	-0.149	-0.157	-0.485	-0.111	-0.043	-0.329
	(0.153)	(0.255)	(0.379)	(0.169)	(0.369)	(0.343)
advancement in privatisation host country	-0.119	-2.547	4.202	-0.87	-2.857	4.213
	(1.354)	(2.182)	(3.451)	(1.512)	(3.24)	(3.344)
unit labour cost ratio	0.085	-0.136	-0.853***	0.229*	-0.088	-0.911**
	(0.121)	(0.161)	(0.312)	(0.134)	(0.247)	(0.413)
former Eastern Germany	0.354	0.495	0.348	0.761	0.154	0.565
	(1.663)	(1.43)	(0.568)	(2.827)	(1.799)	(0.946)

Hungary	0.471	-1.007	1.518	0.254	-0.917	2.567
	(0.426)	(0.705)	(1.052)	(0.464)	(1.124)	(2.023)
Czech Republic	-0.174	0.238	0.363	-0.101	-0.171	0.567
	(0.937)	(1.059)	(2.466)	(1.056)	(1.659)	(3.456)
Slovak Republic	-0.933	3.075	-2.555	-2.004	5.935	-0.464
	(1.394)	(9.618)	(3.228)	(2.049)	(29.953)	(4.966)
Slovenia	-2.311	0.456	0.536	-3.584	0.532	3.665
	(2.518)	(1.366)	(1.648)	(7.241)	(2.574)	(3.580)
Russia	-0.544	-0.46	-1.568	-0.013	2.719	-1.954
	(1.274)	(1.484)	(10.577)	(1.342)	(2.514)	(16.777)
Rumania	-1.069	-0.11	0.272	-1.146	-1.344	0.487
	(1.093)	(1.864)	(1.852)	(1.275)	(2.279)	(2.753)
Bulgaria	-0.699	0.682	0.546	-0.838	2.181	0.746
	(3.369)	(120.962)	(2.764)	(5.436)	(1737.034)	(3.854)
food	0.981	0.889	-1.6	1.3	1.798	-3.958
	(1.02)	(1.394)	(1.938)	(1.063)	(3.558)	(4.925)
textiles	0.341	2.217	-4.061*	0.393	5.386	-5.389*
	(1.263)	(1.734)	(2.379)	(1.339)	(4.145)	(2.827)
paper	1.018	0.893	0.98	1.279	0.1	1.947
	(1.36)	(1.722)	(2.888)	(1.484)	(3.814)	(4.846)
chemical	1.016	3.901**	0.551	1.278	5.055**	0.836
	(1.107)	(1.833)	(2.143)	(1.17)	(4.308)	(4.646)
minerals	1.013	3.037*	0.071	1.399	3.697*	0.259
	(1.091)	(1.595)	(2.483)	(1.162)	(3.739)	(4.574)
machinery	0.414	1.619	-0.133	0.572	3.935	-0.315
	(1.249)	(1.765)	(2.588)	(1.293)	(3.965)	(4.954)
vehicles	0.939	4.015	0.043	1.388	7.926	0.094
	(1.248)	(4.955)	(2.588)	(1.36)	(7.82)	(5.265)
electricity	3.035*	0.081	0.047	3.486*	1.595	0.092
	(1.799)	(1.623)	(3.766)	(1.829)	(3.743)	(6.964)
construction	0.779	4.208**	5.5	0.066	5.329**	6.468
	(1.337)	(2.119)	(3.649)	(1.462)	(5.005)	(7.378)
service	1.438	1.071	-1.655	1.75	2.851	-2.946
	(1.026)	(1.451)	(1.951)	(1.068)	(3.585)	(4.825)
intercept	-3.63**	-3.879	-4.62	-6.712***	5.897*	-11.536***
	(1.708)	(2.997)	(3.814)	(1.979)	(5.897)	(4.313)
log-likelihood	-111.096***	-51.994***	-29.477	-92.816***	-31.738***	-25.863***
-2(L(beta(a))-L(beta(k)))	9.724*	19.098***	22.556***	46.284***	59.61***	29.784***
-2(L(beta(b))-L(beta(c)))	-	-	-	36.56**	40.512***	7.228**
model chi-square	529.53(32)	343.05(32)	220.36(32)	566.09(36)	383.57(36)	236.56(36)
pseudo R-squared	0.704	0.767	0.789	0.753	0.858	0.821
N	558	334	224	558	334	224

N=558. p<0.1;**p<0.05;***p<0.01; Standard deviations are in parentheses.

Table 24: Summary of the results for the entry mode decision with respect to the hypotheses – multinomial logit specification

hypothesis	hypothesized ownership choice effect	hypothesized establishment mode effect
H1a: Firms with a high internal technical competence will enter new markets through wholly owned subsidiaries rather than through joint ventures.	+ rejected, mixed signs	
H1b: Firms with a high internal technical competence will enter new markets through green-field investments rather than through acquisitions.		+yes (weak support)
H2a: Firms with a high sales-promotion competence will rather enter new markets by wholly owned subsidiaries than by joint ventures.	+yes	
H2b: Firms with a high sales-promotion competence will rather enter new markets by acquisition investment than by green-field investment.		-yes
H3*: Firms with more international experience are more likely to enter new markets by green-field investment rather than by acquisition.		+yes
H4*: Firms with more operational experience are more likely to enter new markets by green-field rather than by acquisition investment.		+yes
H5: External market uncertainty increases the likelihood that a firm will enter new markets by acquisition rather than by green-field investment		-yes
H6a: Higher contractual uncertainty increases the likelihood that a firm will enter new markets by a wholly owned subsidiary rather than by a joint venture.	+yes	
H6b: Higher contractual uncertainty increases the likelihood that a firm will enter new markets by green-field investment rather than by acquisition.		+yes
H7: Firms with higher endogenous irreversible costs (sunk tangible assets, sales-promotion competence and/or technology competence) will prefer joint venture over wholly owned subsidiary especially in the presence of high uncertainty.	-yes(for sunk tangible assets,not for all measurements)	
H8a: The greater the market power of the firm, the higher the likelihood that it will enter new markets by wholly owned subsidiary rather than by joint venture.	+yes	
H8b: The higher the market power of he firm, the higher the likelihood that it will enter new markets by green-field investment rather than by acquisitions.		+rejected,
H9: Firms that pursue a 'local for global' strategy of global integration (resource-seeking) will enter new markets through green-field investment rather than acquisition.		+rejected

For ownership: + encourages wholly owned subsidiary; for establishment mode: +encourages green-field

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Table 25: Summary of the results for the entry mode decision with respect to the hypotheses – hierarchical logit specification

hypothesis	hypothesized ownership choice effect	hypothesized establishment mode effect
H1a: Firms with a high internal technical competence will enter new markets through wholly owned subsidiaries rather than through joint ventures.	*+ rejected*	
H1b: Firms with a high internal technical competence will enter new markets through green-field investments rather than through acquisitions.		*+yes (strong support)*
H2a: Firms with a high sales-promotion competence will rather enter new markets by wholly owned subsidiaries than by joint ventures.	*+yes*	
H2b: Firms with a high sales-promotion competence will rather enter new markets by acquisition investment than by green-field investment.		*-yes*
H3*: Firms with more international experience are more likely to enter new markets by green-field investment rather than by acquisition.		*+yes*
H4*: Firms with more operational experience are more likely to enter new markets by green-field rather than by acquisition investment.		*+yes*
H5: External market uncertainty increases the likelihood that a firm will enter new markets by acquisition rather than by green-field investment		*-yes*
H6a: Higher contractual uncertainty increases the likelihood that a firm will enter new markets by a wholly owned subsidiary rather than by a joint venture.	*+yes*	
H6b: Higher contractual uncertainty increases the likelihood that a firm will enter new markets by green-field investment rather than by acquisition.		*+yes*
H7: Firms with higher endogenous irreversible costs (sunk tangible assets, sales-promotion competence and/or technology competence) will prefer joint venture over wholly owned subsidiary especially in the presence of high uncertainty.	*-yes(for sunk tangible assets and for R&D)*	
H8a: The greater the market power of the firm, the higher the likelihood that it will enter new markets by wholly owned subsidiary rather than by joint venture.	*+yes*	
H8b: The higher the market power of he firm, the higher the likelihood that it will enter new markets by green-field investment rather than by acquisitions.		*+rejected*
H9: Firms that pursue a 'local for global' strategy of global integration (resource-seeking) will enter new markets through green-field investment rather than acquisition.		*+rejected*

For ownership: + encourages wholly owned subsidiary; for establishment mode: +encourages green-field

PART FOUR: CASE STUDY PROJECT

Chapter VI: The case studies of the process of investment entry into the CEECs

VI.0. MOTIVATION AND SELECTION CRITERIA FOR THE CASE STUDIES

The cross section econometric analysis of Chapter V tested a model of preferred investment entry mode decisions based on transaction economics, economics of uncertainty, organisational learning and strategy in an emerging economy. It departs from expected post-entry returns of the initial investment mode choices, and relates them to inherent advantages, at the firm, the industry and at the host country level.

This approach has its merits. Constructs such as asset specificity, experience, uncertainty and strategic posture were made more explicit and discriminate among establishment modes and ownership choices and the results can validate existing findings (Mitchell (1991), Mascarenhas (1992a), Tan, Vertinsky (1996), Luo, Peng (1999)).

The main disadvantages of the cross-section analysis are the following. First, stimuli for investment are only external to the decision-maker. Second, the standard return maximisation model supposes there is only one decision-maker. Third, the model assumes a single-time evaluation of the determinants, but these evolve. Fourth, it does not reflect the process of decision making while controlling for environmental influences. Fifth, the cross-section analysis explains the entry mode that the investors preferred as answered in the survey and not necessarily the real investment mode.

First, it is possible to integrate a more cognitive theory in the explanation of (entry order and) entry mode in the sense that the stimuli for investment entry are not only external to the decision maker. The characteristics of the decision maker himself might matter, as will his beliefs about the success of the venture. Ajzen (2002) develops the cognitive theory of planned behaviour. Eshghi (1992) applied this to export decisions. Within the space limits of this dissertation, data could not be collected on the cognitive aspects of entry decision-making on a large scale. This is a suggestion for further research.

Second, depending on the internal organization of the company and the number and identity of different decision-makers, the divergence in opinions between all actors that have a say about the investment decision process can complicate the timing and modalities of the decision. It is observed that in high velocity environments strategic (entry) decisions are centralized yet delegated, fast yet rational (Eisenhardt, Kahwajy, Bourgeois, 1997). This is not the focus of the case project.

Third, to be able to follow the evolution of the determinants, the resource based view and more cognitive theories (Rumelt, Schendel, Teece (1991)) claim that the enduring source of long-term competitive advantages consists of dynamic capabilities, rather than the more economic concept of product market positions. Although dynamic capabilities are idiosyncratic in their details and path dependent in their emergence, they have significant commonalities across firms, popularly termed 'best practice'. This suggests that they are more homogeneous, fungible, equifinal and substitutable than is usually assumed. In moderately dynamic markets, dynamic capabilities resemble the traditional conception of 'routines'. They are detailed, analytic, stable processes with predictable outcomes. In contrast, in high-velocity markets, they are simple, highly experiential and fragile processes with unpredictable outcomes. This is not explored further.

Fourth, the timing of entry is not a discrete category based on a precise moment, but the result of a negotiation process. The discrete categories in the model do not give an indication of the process towards the investment decision-making. The description of this process is complementary and not a substitute for large-scale econometric analyses based on economic theory.

Fifth, the mode of entry in the analysis of the empirical model of Chapter V is the preferred entry mode and this does not necessarily coincide with the real investment entry mode that was undertaken. Governmental interference in the ownership choice such as limits on foreign participation in domestic companies and unavailability of suitable acquisition candidates can, especially in the context of emerging economies, not be neglected as a part of the entry mode decision, but the model did not allow for them[97]. A real(istic) explanation for a certain entry mode can only be found when the preferred entry mode is compared to the entry mode chosen. This will be explored in part four.

Caves (1996) reports on the 'clinical' literature in 'business administration' that can control for all environmental influences and follow the investment decision-in-the-making, since it observes the process in real-time. For these 'clinical' experiments, the case study method can be used to study how the internal organization, influence decision-making. At the start, firms investigate interesting investment opportunities in a way that seems to be random (Caves, 1996). The option chosen is the one that minimizes transaction and information costs. Internal organizational problems often initiate consideration of investment opportunities. Intangible assets do provide the elementary advantages at an early stage of internalisation, but acquisition of knowledge and experience (information) support further expansion after the initial suggestion to enter in a certain manner. The investment in knowledge has often been modelled as a certain fixed cost to improve the investor's ability to distinguish between higher and lower return investment opportunities (Casson, 1994). Since those fixed costs are higher for foreign than for domestic investment, firms with more internationalised operations and more centralized management structures tend to be the earlier movers. The latter aspect is difficult to include in the model of one-decision maker and a single time evaluation adopted so far.

The case level study is structured as follows. A longitudinal study using primary and secondary data illustrates the chronological path or process from the investment proposal until its approval. The preferred and the real entry mode for every project are compared. We investigate which determinants of the model favoured the preferred entry mode for each particular investment. When the real entry mode deviates we question whether there are factors outside the model that can explain this.

The cases represent categories according to the typology of entry order and entry mode. We selected 4 cases to study the processes of investment decisions in a particular Eastern European country, namely Samsonite Europe (VI.1.), Glaxo-Wellcome (VI.2.), Interbrew (VI.3.) and Procter & Gamble Europe (VI.4.). For each company, two early investment projects are covered.

The cases are spread according to combinations of the ownership, establishment mode and order of entry categories developed in part two and tested in part three (Chapter V for entry mode and order of entry). Table 26 gives an overview of the distribution of the cases across industries, home country, firm size, market share, and major motivation for investment. Motivations are categorised under: low cost seeking, market seeking, strategic entry and regulation. Dunning, Rojec (1993) proposed a four-fold typology of foreign investment with particular reference to the transition economies as follows. Their motivations are: resource seeking, market seeking for initial investments, and efficiency seeking and strategic-asset seeking for subsequent investments. Our study is limited to first investment projects and does not focus on follow-up investments.

Table 26: Case choice by industry, nationality, entry mode and timing of entry

	Glaxo Wellcome	Interbrew	Procter & Gamble	Samsonite
industry	pharmaceuticals	beverages	consumer goods	consumer goods
		beer	laundry, cleaning and paper	luggage
nationality	UK	Belgian	US - European headquarters	US - Belgian European headquarters
relative size	top 3 (market share)	top 2 (volume)	top 3	biggest player
motivation	regulation	market seeking	strategic entry	low cost seeking initially
entry mode: host country 1	joint venture - acquisition Poland	joint venture - acquisition(Omsk-Rosar, Sun, Klin) Russia	wholly owned acquisition (Czech Republic)	joint venture acquisition(Palota, Hungary)
entry mode: host country 2	wholly owned green-field Hungary	majority acquisition (Bulgaria)	wholly owned green-field (diapers, Poland)	wholly owned acquisition (Slovak Republic)
order of entry : cohort	early follower	early follower	early follower	first mover

The process of decision making within the firm before entry in the emerging markets takes place is covered first. Then, based on the firm's, industry and host country characteristics, the preferred entry mode is identified. An investigation into the reasons for compliance or non-compliance of the real entry mode with this preferred mode is undertaken.

The information for the cases was obtained by interviews at different points of time, mainly by two sessions. One session was carried out in 1996-1997, for most companies at the time of the first consolidation of their initial investment efforts. The second session in 1999-2000 functioned as a reflection on the first session and the information content was merged with the information obtained before.

The first session was carried out through a mail survey filled out by one major decision maker in the investment process. Subsequently an interview by phone completed the information of the survey in 1996 -1997. The data gathered concerned the initial objectives of foreign direct investment and the obstacles to foreign direct investment in Central and Eastern Europe. The second session consisted of personal interviews focusing on the evolution of the decision process to come to an understanding of the balancing of arguments before entry was decided upon. For each case, the process towards two different investment decisions is studied. The function of the analyses of the cases is to show the complexity of factors determining the relative timing of entry.

The structure of the cases is as follows. First, an identification of the company is given. The characteristics of the industry and its investment motivation in Eastern Europe are discussed. Then, the motivations for investment by the company are summed up. In the last section, the preferred and real entry modes are compared.

Figure 15: Distribution of the cases by entry mode

wholly owned acquisition	wholly owned green-field
Procter & Gamble Czech detergents Racona *Samsonite Samorin, Slovak Republic* *Interbrew Kamenitza,Astika,Burgasko*	*Procter & Gamble diapers Operations Polska* *Glaxo Wellcome Torokbalint, Hungary*
joint venture acquisition	joint venture green-field
Samsonite Szekszard, Hungary-->buy-out *Interbrew-Sun-->buy-out* *Glaxo Wellcome Polfa JV Poland--> buy-out*	

Table 27: Distribution of the two investments per cases by host country

investor	host country					
	Bulgaria	Czech Republic	Hungary	Poland	Slovak Republic	Russia
Samsonite			Palota venture		Samorin acquisition	
GlaxoWellcome			Glaxo Torokbalint	Glaxo-Polfa		
Interbrew	Kamenitza-Astika-Burgasko					Sun Interbrew
P&G		detergents Rakona		P&G Operations Polska		

VI.1. SAMSONITE EUROPE – INVESTMENT ENTRY MODE IN CENTRAL AND EASTERN EUROPE - LONGITUDINAL

VI.1.0. Introduction

Samsonite Europe, a major player in the luggage industry, was a first mover in Central and Eastern Europe in the early 1990s. The luggage industry as a whole invested very little in Eastern Europe but there was an interest in purchasing. Samsonite's competitors only cooperated with subcontractors in the region.

We analyse the reasons for entry in Eastern Europe and for investment entry by Samsonite in particular. We discuss the investment process and explain why the first investment entry solution chosen by Samsonite is different in Hungary and Slovakia. In Hungary a joint venture acquisition was chosen in Szekszard, but it was quickly transformed into a wholly owned subsidiary. In Slovakia, a wholly owned acquisition was chosen from the beginning.

We argue that initially, the cost evolution and capacity shortage in the soft-side segment of the luggage industry was the driving force behind investment in these emerging markets by Samsonite in the 1990s.

VI.1.1. Sources and interviews

For the case study, primary and secondary sources were used and personal interviews were undertaken with the main decision makers at the time, Mrs. Rita Seghers, Vice President Finance Samsonite Europe N.V., Mr. Jacky Soullier, Soft-side Operations Manager, Mr. Marc Matton, Vice President and General Manager Soft-side Division, Mr. Luc Van Nevel, Vice President and CEO Samsonite Europe at the time. The aim was to reconstruct the development towards the investment decision, as an illustration for the decision making process. Beside, the relevant documents at the time of the investment decision were consulted[98].

VI.1.2. Identification of the company and initial involvement in Eastern Europe

Samsonite Europe N.V. was established in Oudenaarde, Belgium, in 1966, as a subsidiary of the U.S. company Samsonite Inc. with headquarters in Denver (Colorado). The U.S. company itself had been established in 1910 at the time of gold fever. Quality and durability are the image of the bags produced by the company. The Frenchman Mr. Pinault, of Pinault-Printemps-Redoute and a Mr. Black, together with Mr. Michael Milken the inventor of the junk bonds, were the majority shareholders of the company. The company became the victim of financial speculation in the two recent decennia. Samsonite Europe NV. had two factories in Belgium, one at Oudenaarde (headquarters) and one at Torhout. The production at Torhout was entirely aimed for soft-side bags. The Oudenaarde factory produces hard-side bags and is responsible for research and development. Commercialisation of hard-side bags and soft-side bags is localised in Belgium and covers also directly, or through distributors or linked enterprises, mainly all other European countries.

Sales for Samsonite Europe in the early 1990s were mainly realised in Western Europe (about 87 %), 8% in Central and Eastern Europe and around 5 % in Asia and the Middle East. Sold are hard-side bags and soft-side bags, beside promotion material and replacement parts. Sales consist also of income of royalties and licensing income. There are different types of distributors, ranging from specialised shops over retailers, hyper-markets to 200 Samsonite shops. Table 29 gives an overview of

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[98] We thank Mrs. Seghers, vice president finance, for making available the historical documents for consultation.

profits, sales, personnel and R&D costs for Samsonite Europe N.V. Outside Belgium, the company has 400 employees in France, 100 in Spain, 150 in Italy (figures stated in 1997).

Table 28: Samsonite Europe N.V. in figures: profits, sales, employment, costs for R&D

	unit	1993	1994	1995	1996	1997	1998
profits (manufacturing profit)	billion BEF	0.516	0.603	0.659	0.739	1.066	1.241
	% of sales	7.2	7.7	8	8.2	10.4	10.3
Sales	billion BEF	7.207	7.815	8.24	8.972	10.282	12.089
personnel in Belgium	headquarters	892	880	912	912	943	975
	subsidiary	243	255	272	246	233	119
	total in Belgium	1135	1135	1184	1158	1176	1094
	blue-collar	925	915	954	913	924	840
	white-collar	210	220	230	245	252	254
costs for R&D	million BEF	n.a.	54	58	58	68	66

Remarks on the data: The figures reported are, for the profit, the profit by the enterprise's activities in the book year, in the consolidated year report, not in the report of Samsonite Inc.

VI.1.3. Identification of the luggage industry and the push factors for entry into Eastern Europe

VI.1.3.1. Market segments of the luggage industry: soft-side and hard-side bags

There are only a few players in the luggage industry. The main competitors in the industry for Samsonite (US- Belgium) are: Delsey (France), Carlton (UK), Roncato (Italy), Ecolac (Taiwan), Ace (Japan) and Crown Luggage (China with headquarters in Japan). Important in the functioning of the industry is the coordination of the company's distribution chain. Brand creation and promotion is crucial. The industry has two major sub-industries, soft-side bags and hard bags and it is important to understand the differences between both for the entry into Eastern Europe. The investment process in Eastern Europe was limited to the soft-side segment.

Table 29: Overview of differences between the two sub-segments of the luggage market, hard-side and soft-side bags

	hard-side	Soft-side
distribution of sales by total industry	20%	80%
Samsonite's market share	65%	few years ago 10%, increasing ever since
Growth	stagnation	3 to 4 % per year
regions with major growth in demand	same origin, but constant in traditional markets	Eastern Europe, Far East (India, Hong Kong, Singapore, Korea, China, Vietnam account for 70%)
capacity growth	-	in 3 years, from 3 to 6.5 billion
potential production by Samsonite in CEE	not present yet interiors could move to CEE e.g. assembly of wheels in Czech Republic under long term contracts or subcontracting	mainstream products in medium-end range (cost price Spark: 5,000 BEF on average)
ratio own production/subcontracting	higher than soft-side	7 to 3
competition in Eastern Europe	hardly existing	present
labour intensity	lower than soft-side	high
transport cost	high	lower
local market as determinant for investment	high attraction	less of an attraction
set-up cost	high	low
plant size (minimum efficient scale)	1000 employees	400 employees

Source: Samsonite annual reports, interview.

VI.1.3.2.Trends in the luggage industry

1. Diversification.

Unlike some years ago, the luggage industry is in full turmoil since 1994. One needs to distinguish between the two relevant sub-divisions, the soft-side bags with soft and the hard bags with a hard back. The functions range from suitcases, travel bags, backpacks, computer cases, attaché cases, briefcases, schoolbags, toilet kits, men's purses, trendy bags to ladies' handbags. But diversification went further. The Italian subsidiary of Samsonite, for instance, diversified into a footwear range, capitalising on the Italian pre-eminence in footwear design, on the firm's experience in leather goods, and on the image building for the Samsonite brand. Samsonite responded to demand growth by becoming more a travel brand instead of a luggage brand.

Beside diversification there was also an evolution of product differentiation. Many of the products are developed in a formal and a casual version. Different materials are used ranging from leather to polyamid. The development of more product lines and the rapid pace with which new product lines are added to the existing ones are a sign of market and promotion pressure. Beside, research and development activities in the industry include the development of so-called "piggybacks", "wide-trackers" and "mobile offices", as the business traveller is more and more a traveller busy with his work while travelling. Since copying is quite easy, the rate at which new products come into the market is higher than before. The fashionable character of the product reduces the 'product life cycle' of the series of bags of a certain type. It is mostly not a radical change of the product, but a differentiation of it. Both for hard-side bags and for soft-side bags, product life cycles are reduced in length. As a consequence, the pressure to reduce costs increases. The pressure to reduce costs is more stringent for the hard growing soft-side bag segment, for which there is much more competition in the market, than for hard bags, that have only limited competition.

The distribution and licensing agreement between Samsonite Europe and Hedgren in 1999 is a sign of that fashionable image. It might be a first step in an acquisition by Samsonite of the Hedgren company. The common interest of the two companies, are that the design of the small company Hedgren and the large distribution network of Samsonite can be combined. The duration of the joint action was conditional. Through the agreement, Samsonite can buy products in the Far East made under the Hedgren name and pays a licensing fee to Hedgren. Hedgren, has a turnover of 1.5 billion BEF in 1998. Sales are mostly realised through independent shops. The distribution of Hedgren is only in Belgium itself, the home country, operated through the firm itself. Elsewhere Hedgren operates with distributors.

Handbags become to look more like back-packs. There is the integration of hard-side and soft-side bags. Large heavy suitcases become smaller and are transformed to piggybacks that are more convenient for travelling. Business(wo)men make shorter trips more frequently, carry less luggage, carry the luggage themselves and with it their virtual office with them as a result of the evolution in telecom and portable computers and miniaturisation of this equipment. A reason for the reduction in the size of the bags is the change in the IATA (International Air Transport Association) guidelines. The luggage handling systems by the airline companies evolve towards smaller cabin luggage allowances.

2. Change in distribution.

As for many other consumer goods, distribution of luggage became more tuned to the different product lines. Each product line requires an adjustment of its typical distribution channel. A new channel for Samsonite bags, from 1994 onwards, were, large-scale retailing and hyper-markets,

mainly for soft-side and luxury bags.

3. Warehousing and optimisation of the product flow.

Global warehousing underwent some changes. Instead of producing world-wide for the local market, the strategy is to concentrate warehousing as much as possible. In 1996 the company started building a new central warehouse at the headquarters at Oudenaarde that started to be used in 1998.

Despite high transport costs for bags, it is useful to use central storage facilities. So, production is, for example, undertaken in the factory in Eastern Europe and transferred to the Belgian warehouse. From there, it is brought to the customer that, theoretically, can even be situated in Eastern Europe closer to the Eastern European factory. Efficiency reasons inspire this warehousing system that guarantees 90% of demand is fulfilled within a few days.

4. Growth perspectives in the luggage industry.

Sales of luggage have changed as well. Regional differences in sales are noted. From the 1980s on Europeans preferred hard-side luggage and Americans preferred soft-side bags. Whereas the Western European market was stagnating, the growth markets are the Far East, Eastern Europe, and the U.S. Total sales evolution evolved favourably for the company, from 7.2 billion BEF in 1993 up to 12.1 billion in 1998 (see table 28).

5. Evolution of cost and profitability

Labour costs are relatively high in the home country, especially in the production of soft-side bags.

Due to competitive reasons, prices of end products could not be raised. In 1994, this was explicitly stated in the annual report. Profit margins could only improve or be kept stable thanks to a favourable evolution of the costs of raw materials and inputs and the low value of the dollar. The tendency to relocate production is general for Western Europe.

Transport costs are high relative to the value of the products. This is one of the reasons why different sites are necessary and economies of scale are relatively soon exhausted. Transport costs for hard-side bags are higher than for soft-side bags.

6. From own factories to outsourcing

Related to the evolution of the labour costs and the relocation of the more labour-intensive soft-side production towards regions with lower labour costs, is the evolution towards a split of the production column into parts. Manufacturing of parts is cheaper when outsourced. Outsourcing and licensing of the parts were booming. The luggage industry started investing more in distribution. The downsizing of own manufacturing in Western Europe is parallel with the development of manufacturing in Eastern Europe and in the Far East. The strategy is mainly typical of the soft-side bags. The push factor is the demand for more production capacity. It is certainly desirable to develop additional production at a lower production cost.

VI.1.4. The investment motivation for Samsonite N.V. to enter into Eastern Europe

VI.1.4.1. Capacity shortage in Europe

Demand for Samsonite soft-side luggage was booming. Samsonite was confronted with a capacity shortage. This capacity was first found in the Far East, but this was not sufficient. Additional production facilities for soft-side bags were therefore found in Eastern Europe. Plants for soft-side production were efficient. The ideal plant of this type employs about 400 people. A larger scale does not improve efficiency anymore, since flexibility to switch product lines is important in the industry.

VI.1.4.2. Low labour costs and delocalisation

Production of soft-side bags is labour intensive. Labour cost is 40 to 50 percent of the cost for soft-side bags. Labour costs were too high in Belgium (Torhout). The fate of the Torhout plant that produces soft-side bags was to be downsized in 1998 with a job loss of 111 full-time jobs at Torhout, Belgium. Labour costs of the Belgian Torhout factory were 10 times the level in Hungary. It takes 30 minutes to assemble a bag. The cost was at that time 800 BEF (20 euro) per hour. The impact of labour costs on the sales prices is times four. With transport costs taken into account Samsonite saves 20 to 30 percent on the production costs by a move to Hungary. Hard bags are not so labour intensive and, therefore, the cost pressure was lower for them.

Samsonite downsized its production in Spain. Restructuring costs linked to it are noted in the consolidated year report of 1996 at the amount of 35.8 million BEF. Production was relocated towards the Far East and Eastern Europe, mainly under the format of sourcing and subcontracting in the Far East, and as foreign direct investment in Eastern Europe.

For hard-side bags, labour intensity is much lower and transport costs are higher. It would not have been possible to install ejection machines in Eastern Europe.

Table 30: Evolution of employment (1993-1998) by Samsonite Europe in Belgium
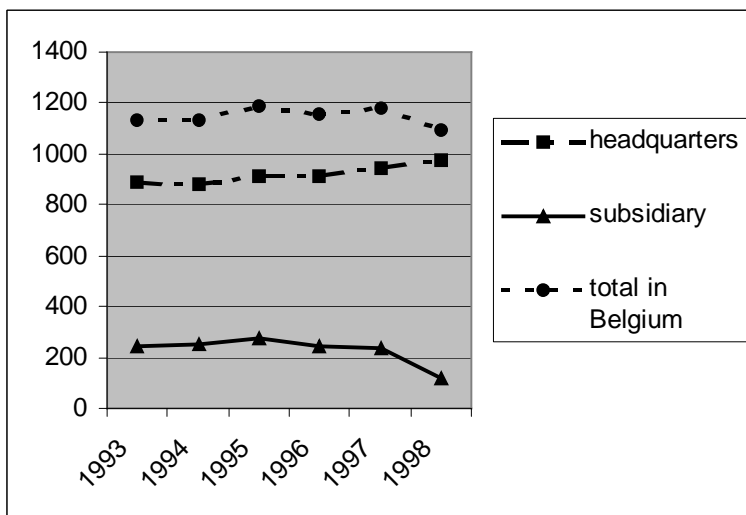
When one looks into the development of employment in Western Europe, the evolution goes towards a light reduction of employment. Between 1993 and 1998 there is a decrease in total employment in Belgium. The number of blue-collar workers decreases and is not completely compensated by an increase of white-collar workers. This evolution might be the sign of a relocation of blue-collar employment towards other regions. The administrative and management tasks at headquarters, on the other hand, increased. The establishment of new production facilities in Eastern Europe and the collaboration with new sub-contractors in the Far East is responsible for this. Beside, the centralisation tendency in warehousing required more white-collar workers at the headquarters

(VI.1.3.2.).

VI.1.4.3. Purchasing in Eastern Europe induces investment in Eastern Europe

Both purchasing of components and sourcing of final products were very common practice. This 'buy' instead of 'make' policy is also valid for the Far East. Samsonite bought already 25 years in Korea. Already before 1989, Samsonite bought from a Hungarian subcontractor Palota. Since there existed a long-term relationship with that partner on a contractual basis, there was an urge to go one step further and invest in this partner. This is what happened in Central and Eastern Europe.

VI.1.4.4. Spreading risks

Samsonite, as a U.S. company, used to be very dependent on the dollar zone. Eastern Europe, traditionally linked to the DM zone, was a way to balance the dollar zone and the Eastern European zone (DM zone). This is a very firm specific argument for investment in Eastern Europe, stressed by the Vice President Finance. Open positions in DEM at the time were favourable for Samsonite Europe.

VI.1.5.Process of negotiation until the arrival at an investment decision

1985: collaboration agreement with Palota
1989: 60-40 joint venture with Palota
1991: buy-out of Palota and 100 % ownership of Samsonite Hungary Kft.
1995: acquisition of the Slovak company

VI.1.5.1. Samsonite's investment in Hungary, Palota at Szekszard

In 1985 already, Samsonite visited ten companies in Hungary that had been selected by the trading companies. Only one of them seemed qualitatively interesting. Samsonite allocated a 'flying team' of the company itself for further investigation of the investment and follow-up.

1. pre-collaboration

Personal contacts had been established before, among others academic contacts at the Karl-Marx University in Budapest. Right from the beginning there were protests in Belgium from the side of the unions against relocation. A collaboration agreement with the company Palota Kft., a textiles company with headquarters in Budapest and 5 plants spread over the country, was decided upon in 1985 already. The firm produced handbags and bookcases for the Hungarian and Russian market. Traditionally confection and leather processing know-how had been concentrated in the planned economic system in the region of Hungary and the Slovak Republic. There was even excess capacity of tents and hand-bags. The first form of collaboration between Palota and Samsonite started as German exports. Palota Kft. had become a supplier for Samsonite. Trading companies were well structured. Companies such as C&A and Ikea also worked with those trading companies at that time. So, after exports found their way to the West, the idea was to use the excess capacity in Hungary for finishing products sent by Samsonite. As early as in 1987, Samsonite considered investment plans in Eastern Europe.

2. A collaboration agreement – contract manufacturing

The agreement consisted of a supplier – customer relationship under the form of contract manufacturing. Samsonite Europe N.V. contributed the technical know-how, the technicians and administrative support. Samsonite provided advice for the purchase of machinery and the modernisation of existing equipment. Palota Kft. renewed its machinery in order to work in an industrial manner. The Hungarian company manufactures the 'Campus' product line for Samsonite Europe on this contractual basis. Access to Hungarian credits was provided. Efficiency and quality were improved. Samsonite delivered the raw materials. The wage contract with the Hungarian company was well structured. Finishing of the products was undertaken in the Hungarian firm at a per hour tariff. In this manner, a labour contribution was realised in Hungary and export increased. Samsonite bought a service from Palota.

3. *The establishment of a joint venture in Hungary*

Palota was a state owned enterprise and its employees had no ownership rights in the factory. The owner was the Hungarian state. In 1989, right after the opening of Eastern Europe, authorisation for capital expenditure was agreed upon involving the establishment of a joint venture, the first joint venture by Samsonite, since the usual policy of the company is taking 100 % participations. The authorisation was given to invest $500,000 for a joint venture with Palota Kft. in Hungary. It was motivated by an investment and risk analysis, a calculation of the pay-back period, a cash flow statement, a statement of capacity use and the calculation of the impact on the profitability of the Samsonite group. Further investment needs were also estimated. The location of the company was very favourable. The place is relatively unknown, far from the capital Budapest where the risk of leakage of information to potential competitors would have been larger.

In January 1990 already, Samsonite starts up the joint venture with Palota. The input by Palota consisted of machinery and equipment, and the Szekszard plant. Land and factory were very cheap. Plant and equipment were of sufficient quality. Palota sold the buildings and land of the Szekszard plant to the Kft. joint venture. In order to finance this operation, the Kft. was leveraged as follows. A loan was given from Palota to the Kft. for 40%. Samsonite was responsible for the hard currency transfer (DM) to the offshore CIB-bank. A loan from the CIB-bank guaranteed by Samsonite N.V. or a Belgian bank provided the remaining 60%, all in Hungarian forint, but for Samsonite in the DM equivalent. It was Palota that had required operating in Forint. The risk of a devaluation of the Hungarian forint for Samsonite was hedged by the loan. The goods were sold in DM, to which the Belgian franc was intrinsically linked, as safe practice. The demand to pay wages in DM as well was refused by Samsonite. This was put on an eskro-account, so that the conversion was not necessary. Local management and employees all stayed in the company. No expatriates were in the management of the company. A Hungarian experienced in Hungarian textiles, Hungarotex, became the general manager and the former plant director of the Szekszard plant was appointed as the technical manager.

It was agreed upon that the joint venture sold both on the local Eastern European market and to its partner, Samsonite Europe N.V. As a licensee of Samsonite Corporation, the joint venture paid royalties on locally manufactured (soft-side) products sold in the Eastern European countries. The joint venture sold and distributed the Samsonite brand on the Hungarian market on an exclusive basis, and in other Eastern European countries on a non-exclusive basis. In the authorisation for expenditure (E-II Consumer Products division) at the time, it is stressed that the choice of Hungary was deliberate. The belief was that Hungary moved rapidly in the direction of becoming a Western European country with most of its industry already being privatised. The level of privatisation of the industry is regarded as a strong argument in favour of local investment.

In Hungary, Samsonite was, by the establishment of this joint venture, the third foreign investor after the fall of the Berlin Wall. Production was sold in hard currency. The pay back period of the investment was 2 years only and the investment amount was limited. If the investment would have been unsuccessful, the share could have been diluted and only the investment cost would have been lost. Profits were not repatriated but kept in Hungary. Right from the beginning the possibility of a buy-out was guaranteed.

The vision of the Vice President Finance: against joint ownership

This vision is that the choice for a joint venture in Eastern Europe is at odds with Samsonite's usual practice. The company was more or less asked to establish a joint venture by its former partner in the collaboration agreement. Had it the choice, it would have taken 100 % participation from the beginning. The argument in favour of 100 % ownership has a lot to do with the local companies as well. Local assets were high level and worth to be acquired by the foreign investor. Knowledge in the fields of marketing, financial high tech, optimisation, accounting and entrepreneurship was not existing or not sufficient. Accountancy, certainly analytic accountancy was not fully developed. In Hungary, Samsonite first collaborated with accountants in Budapest. Full control was essential to bring the company's accounting system up to the standard. The risk of a joint venture was also not defendable. Financially the participation in only 60% of profits was not efficient, since contribution in costs was fully on Samsonite's site as the joint venture partner was financially weak. The reason why the company agreed with a joint venture was because it saw the investment as lasting and the risk could be hedged. The investment was already paid back after two years. Samsonite would not risk heavier investments in the venture before it was transformed into a wholly owned subsidiary under its full control.

The vision of the Vice President and General Manager of the soft-side division: in favour of joint ownership

This vision was different from the arguments given by the vice president finance. The General Manager of the soft-side division argued that a 100 % ownership was not intended from the beginning. He stressed that the minority share enabled the link with the local authorities and the local market. A 100% ownership would have been more difficult in this respect. Local contacts are more easily established when the Hungarian company also participated in the venture. In 1989 the consulting firms KPMG and Arthur Anderson had only two people in Budapest. These people were certainly not sufficient to be helpful to all Western potential investors and understaffed to know a lot about the local situation in every industry.

4. wholly owned subsidiary – a buy out

Many joint ventures fail in Eastern Europe and elsewhere because of financial limitations of the local partner. Financial costs such as loans are loaded on the shoulders of the Western partner. Palota's financial situation was, in fact, dramatic. Hence, further financial support from it was excluded. The company was close to bankruptcy or receivership. Important contributions such as know-how, operations, social environment, public relations, community relations or lobbying were beyond the capacity of Palota. Samsonite could not further develop the company under the existing joint venture formula. It had invested 100%, but, because of the shareholders' distribution, was only entitled to 60% of the revenues generated by the Kft joint venture.

Samsonite still believed Hungary and the Kft. joint venture were of vital importance to them,

for sourcing, functioning in Eastern Europe, selling and marketing and strategic purposes. The aim was to further 'Samsonitize' the Szekszard plant. The surplus value in land and buildings was believed to be considerable after some years, but the limited participation of 60%, a handicap.

In 1991 the authorisation for expenditure for the buy-out is given. Samsonite acquired the minority partner's share of 39, 41% (Samsonite's share had been increased from 60% to 60.59%) in the quota of the Kft. joint venture. Samsonite ended the partnership in the Kft. and the company Samsonite AG in Switzerland, set up to avoid a direct link with Samsonite in the case of failure, was dissolved as well.

Samsonite modernised and enlarged the firm. The firm produced bags and trolleys and became with its 350 employees the most important capacity of soft-bags. By 2000, the company is a 'competence centre' for the group. The Torhout plant in Belgium was closed and production and development was transferred to Hungary. The complete production consists of contract manufacturing plus finalised subcontracting. Management in Hungary had become more mature and experienced. The company was responsible for its own purchasing policy. If raw materials were not available they were imported from Western Europe. Production and work spirit were positive and initiatives were taken and the local people mastered different languages.

Over the years employment in Hungary was raised from an initial 100 employees in 1989, to 200 in 1991-1992, 300 in 1993, 400 in 1994-1995 and 450 by 1996. In Hungary, subcontractors now employ themselves 150 employees.

VI.1.5.2. Samsonite's investment in the Slovak Republic

After the Hungarian experience Samsonite decided to invest in the Slovak Republic. The localisation choice was in favour of another country, because the CEE markets are not much integrated yet and the possibility of political instability was still taken into account. The Slovak Republic was chosen because of its practical fixation of the exchange rate (Table 4 in 1.2.2.3.). The story of the Slovak Republic investment is quite different from the Hungarian one. The role of privatisation is the main difference. The Slovak company could not be taken over right away as a going concern. The resulting advantage compared to the Hungarian case was that 100 % participation could be taken from the beginning.

The Slovak company at Samorin, near Bratislava, had the necessary know how. It produced soft-side bags and seats for automobile producers. Compared to Hungary, labour costs were even lower, approximately half of the wages in Hungary. The economic size of 350 employees was optimal. The geographical location of the firm, in Samorin close to Bratislava was even more central than the Szekszard plant in Hungary. But the company suffered from other problems to be attractive for acquisition.

In this company, employees participated in ownership. At the time Samsonite became interested, 'cow-boys' were busy to buy up ownership rights from these employees. Samsonite was interested in the firm, but not in its unclear ownership situation. It solved this problem as follows. It required the establishment of a completely new company without any employees. New contracts were made. Financially, the whole company started form zero. The value of the plant was estimated. Local loans were provided by the ING bank that was very active in Eastern Europe. Samsonite took immediately 100 % participation and acquired the company. Extra employees were hired up to 340 employees.

A new ethically independent company had to be established. Some principles such as due diligence had not been respected. Loans had been allowed to personnel of the company. Whereas the Hungarian company was a 'going concern', the acquisition of the Slovak company involved first making tabula rasa. Apart from that, the investment project was basically a repetition of the Hungarian

venture, but with an empty factory in financial distress.

VI.1.5.3. The resulting scope of involvement of Samsonite in Eastern Europe

Apart from Hungary and the Slovak Republic, Samsonite did not invest elsewhere in Eastern Europe. Samsonite had established one major competence centre in Eastern Europe, Palota, that was transformed into Samsonite Hungaria Kft. This 'competence centre' disposes of 2 plants (maybe 3) for production and support for subcontracting in the region. Beside production, the Szekszard firm was involved in purchasing, quality control and R&D. Raw materials are purchased in Eastern Europe (i.e. polyester, polyamide, textiles, artificial materials). The Hungarian firm operates independently through 16 sales subsidiaries. In Slovakia there is, beside the company at Samorin, also a distributor. Distributors operate in the smaller CEE countries. Outsourcing is done via seven contractual partners. Sub-contracting involves the parts to separate the bag into parts, sewing, fabricated metal parts such as buttons, the plastic part under the handle of the bags, etc…In the Czech Republic a sales organisation is set up. A collaboration agreement was set up with Snezka for outsourcing in the Czech Republic. Zips and small pockets are, for instance, partly outsourced to producers in the Czech Republic. These products are also parts of hard-side bags. In Bulgaria, Samsonite Europe concluded a collaboration agreement. In Poland Samsonite established a sales organisation. Samsonite had tried to start up activities in Russia as well, but pulled back because of mafia practices encountered there. A dedicated Samsonite Travel Shop had been opened inside the G.U.M. department store on Moscow's Red Square in 1992. Other brands such as Delsey, Roncato and Handler are on the Eastern European market without any investment in the region.

VI.1.6. The comparison between preferred and chosen entry mode decisions by Samsonite

For both projects, Samsonite answered in the survey that it had preferred a wholly owned acquisition entry.

The model of Chapter V based on all investment projects predicts that Samsonite would then have the following characteristics: high advertising, high global concentration and a 'local for global' motivation. In Hungary, the investment deviates from it initially, as far as its ownership decision is concerned. In the Slovak Republic the real entry mode complies with the preferred entry mode. We look for the ownership decision (VI.1.6.1.) and for the establishment mode decision (VI.1.6.2.) why the real entry mode was chosen. We look for other specific reasons outside the model why investors deviate from their preferred entry mode.

VI.1.6.1. The ownership decision

The investment in Hungary and the Slovak Republic was and remains fully for re-export to the world market. Samsonite could not rely on partners for specific investments. Therefore, subsidiaries were preferred, which is an argument in line with the model. The sales promotion content of the investment is unimportant, since the investment is in the first place not intended for the Eastern European market.

In Hungary, the 60 percent participation was agreed upon under insistence of the partner firm with which Samsonite had already a collaboration agreement. In the Slovak Republic, full ownership was taken right from the beginning.

In the motivation for the buy-out in 1991 it is stressed that the Hungarian company Palota did not, in fact, contribute anything such as financial support, know-how, operations, social environment, public relations, community relations or lobbying. Samsonite had to invest 100 % but was only

entitled to 60 percent of the revenues generated. Samsonite had hedged the risk, but Samsonite's share had to be raised as soon as possible.

An additional reason for a preference for a subsidiary that is not often mentioned in theoretical argumentations is the gain of control over the quality of the financial assets and the accounting know-how that was insufficient in the Hungarian company Palota.

VI.1.6.2. The acquisition versus green-field decision

The preferred and real choice in Hungary and the Slovak Republic was an acquisition. The reason is that the assets of the local company, such as machinery and equipment and technical knowledge of the Szekszard plant were of sufficient quality and worth to be acquired. Also, the human assets were judged to be of good quality.

Contrary to the model, local experience Samsonite had built up through its earlier collaboration agreement in Eastern Europe had been very useful and led to an acquisition instead of a green-field investment. Because of the knowledge built up during the period of the collaboration with the Palota company in contract manufacturing, Samsonite was privileged to enter Eastern Europe. The Eastern European companies before 1989 needed foreign currency. The experience of the collaboration with Palota since 1987 had been positive. As a result of this, negotiations for the joint venture formation were already finished after six months, because of this experience.

VI.1.7. Conclusions of the Samsonite case

Samsonite Europe invested quite early in Hungary mainly because of a capacity shortage in the soft-side segment and because of labour cost pressure and fierce competition if products were continued to be made in Western Europe. The soft-side segment of the luggage industry is more fragmented and more labour intensive. Transport costs and economies of scale are lower for soft-side bags than for hard-side bags. Therefore, the relocation was a phenomenon of soft-side bags and the production of hard-side bags stayed centrally in Western Europe.

The company was ahead of potential competitors thanks to operational experience gathered early in the mid-1980s. In Hungary, it enabled the company to acquire the best company in the industry early on, although quite some know-how input was still required. No other investors entered before. Samsonite's competitors did not invest in the region, but continued to operate with purchasing contracts. If Samsonite had not collaborated with Palota in Hungary, other companies might have done it or were certainly looking for sourcing opportunities in the same region. The investment was meant for re-export.

The preferred entry mode was a wholly owned acquisition. This is the final result both in Hungary and in the Slovak Republic. Samsonite could not rely on its partners for specific investments, so wholly owned subsidiaries were preferred. Samsonite had initially to deviate from this strategy in Hungary because of the insistence of its local partner to have a share in the venture. The company had hedged the risk and guaranteed the buy-out option in the joint venture contract that was executed as early as possible.

VI.2. GLAXO SMITHKLINE (FORMER GLAXO-WELLCOME) – INVESTMENT ENTRY MODE IN CENTRAL AND EASTERN EUROPE – LONGITUDINAL AND IN DEPTH

VI.2.0. Introduction

GlaxoWellcome[99], a major pharmaceutical company observed a potential big market in Central and Eastern Europe in the mid-1990s. A quantitative and qualitative gap in healthcare provision existed with Western Europe, and sales of drugs in Eastern Europe was expected to rise in the longer term.

The pharmaceutical industry as a whole invested both very little and very late in Eastern Europe though (Chapter II). At the time of a tendency of closing factories rather than opening new ones, investment entry was rarely considered, although the opening of new markets encouraged clear long-term strategic thinking about presence in the region.

The first entry solution chosen by Glaxo-Wellcome is different in Hungary and Poland. In Poland a joint venture acquisition was established in Poznan that, as we will explain, is rather untypical. The Eastern European pharmaceutical industry was basically uninteresting to Western companies as far as its assets are concerned. The GW management argued the acquisition was justified by a good opportunity. The Hungarian investment, a wholly owned green-field investment is more in line with the expectations that come from the theoretical framework developed in this dissertation. Both the Hungarian small green-field and the Polish investments serve the purpose of improving access to doctors and government bodies. We argue regulation is the main motivation for investment in these emerging markets for a pharmaceutical company such as Glaxo-Wellcome in the 1990s.

VI.2.1. Sources and interviews

For the case study primary and secondary sources were used and interviews were conducted in Greenford-London with the two major decision makers responsible, Mr. Simon Davidson, Director Central and Eastern Europe and Mr. Bernard King, Commercial Co-ordinator Central and Eastern Europe at the time.

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[99] Now, as a result of a merger with SmithKline Beecham, the company is Glaxo SmithKline, but not at the time of the investment in Eastern Europe that is the topic of this case.

VI.2.2. Identification of the company and initial involvement in Eastern Europe

Figure 16: GlaxoWellcome's total sales by therapeutic area (1999)
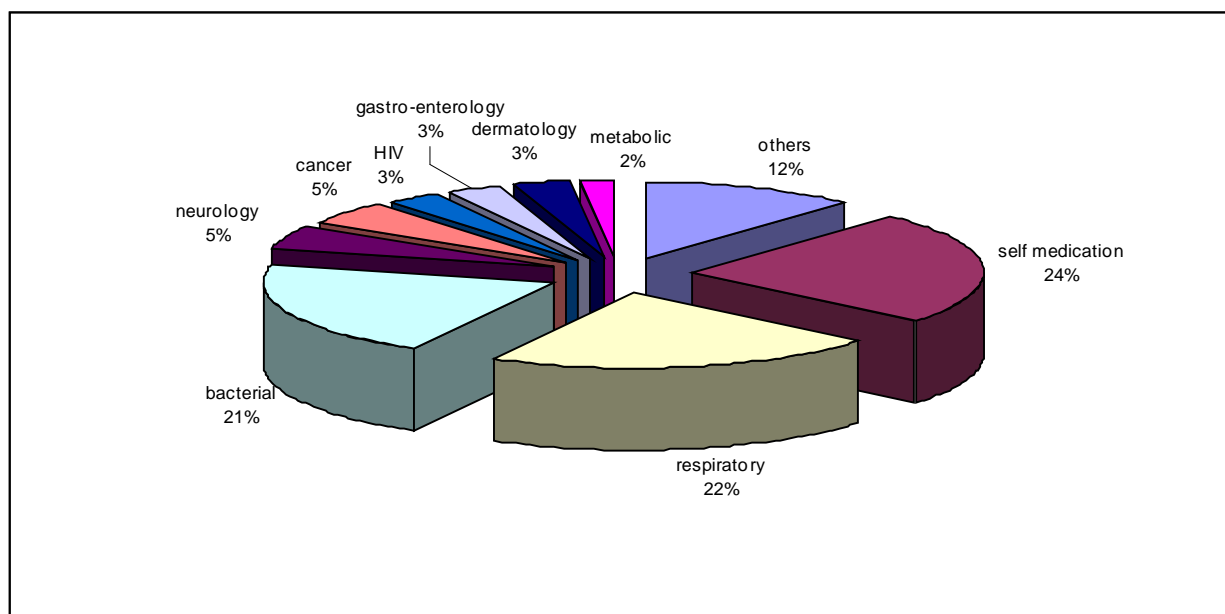
Glaxo-Wellcome itself was formed in 1995 by the acquisition of Wellcome by Glaxo. In January 1999 the Boards of Glaxo-Wellcome and SmithKline Beecham agreed the terms of a merger called Glaxo SmithKline. This merger became effective in the Summer of 2000. The investments in Poland and Hungary were decided upon in the Glaxo-Wellcome period.

Glaxo-Wellcome has operations in five major therapeutic areas, namely: respiratory diseases, anti-viral infections, gastro-intestinal[100] therapy, dermatology and central nervous system disorders.

Table 31: Main figures on Glaxo (until 1994 for Glaxo Holdings Plc., from 1995 onwards for GlaxoWellcome) sales in Eastern Europe

	unit	1992	1993	1994	1995	1996	1997	1998	1999
profits (ordinary activities before taxation)	million £	1,427	1,675	1,840	2,505	2,964	2,686	2,671	2,575
Sales	million £	4,096	4,930	5,656	7,638	8,341	7,980	7,983	8,490
sales in Eastern Europe	million £	27	49	56	79	93	106	165	171
Employees		7,958	7,959	47,189	52,419	53,460	52,501	57,342	61,830
R&D expenditure	million £	595	739	858	1,540	1,161	1,148	1,163	1,269
R&D expenditure	%	14.5	15	15	15	14	14	15	15

Source: yearly reports 1992-1999.

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[100] The company's major cash cow in the area of gastro-intestinal diseases is Zantac, used to treat duodenal ulcers, stomach ulcers, reflux oesophagitis and dyspepsia, by blocking acid secretion. Zantac had been launched by Glaxo back in 1981. By the merger with Wellcome, it was rapidly made available in the U.S. as well, since the sales force was doubled.

Figure 17: Sales of GlaxoWellcome in Eastern Europe compard to total turnover of GlaxoWellcome (percentage change (1992-1999)
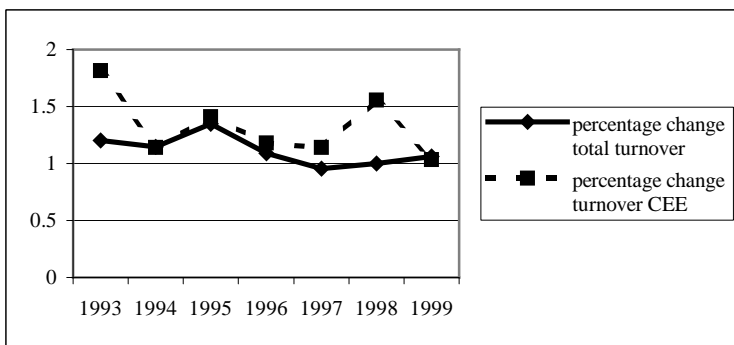
Source: yearly reports 1992-1999.

The incremental changes in turnover in Eastern Europe were larger than for GW's total sales, but fluctuations from year to year are also larger than the overall figure over the period 1992-1998.

VI.2.3. Identification of the pharmaceutical industry and the push factors for entry into Eastern Europe

The global pharmaceutical industry is an oligopoly with a C4 of 17.6. The top ten companies have a joint market share of 39.6 percent of the world pharmaceutical market.

Table 32: The rank and percentage global market share of the leading pharmaceutical companies

	rank	market share
AstraZeneca	1	4.5
Aventis	2	4.4
Glaxo-Wellcome	3	4.4
Merck & Co	4	4.3
Novartis	5	4.1
Pfizer	6	4.1
Bristo-Myers Squibb	7	4
Johnson & Johnson	8	3.5
Roche	9	3.2
Lilly	10	3.1
TOTAL		39.6

Source: Glaxo-Wellcome data base IMS, June 1999

Sales in the pharmaceutical business are highly determined by newly patented products being launched and by the number of products for which patents are expiring. Products with a patent protection can be sold at a substantially higher price covering the long period of research and investment. The price setting is discussed with each individual government. This results in price differences between countries. The US market is known to have the highest prices followed by the other Western countries. Price differentiation is typical. The same pharmaceutical product can be sold easily half the price in Canada compared to USA and still being more expensive than in France or Italy. In Eastern Europe and developing countries no patent protection was filed and the same drugs are sold at a fraction of the price in the major markets, the US and Western Europe.

The main determinant of drug consumption is the price and the reimbursement accorded by the

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government. A distinction must be made between OTC (over-the-counter) drugs and prescription drugs.

Table 33: The place of sales, use and price according to category of drugs

	over-the-counter	generics	non-generics
Sales place	Pharmacy & department store	Pharmacies	pharmacies
Use	non-prescription	Prescription	prescription
Reimbursement	None	Possible	possible
Price	no price regulation	price regulation - low	price regulation - high

The successful development of sales by pharmaceutical companies highly depends on the speed with which new drugs can be accepted for sale at a certain price in a country by the regulatory bodies and on the reimbursement fraction. Speed of introduction and price setting are the decisive factors for profitability.

Table 34: General determinants of the sales of drugs

WHAT DETERMINES THE SALES OF DRUGS?
Population size
Population income

the need for drugs – health
the occurrence of diseases treated by the drug
the importance to treat these diseases
the effectiveness and side effects of the drug
the existence of competing therapies or drugs
the number of drug intakes per patient:
from one intake to daily for the rest of one's life.

the use of drugs - healthcare provision
the hospital versus home-based use
the price of the drug
the price of competing drugs/therapies if any
the fraction reimbursed by the government or health insurance.
Whether given only on prescription or over the counter
Prescription habits of the physicians

There are more arguments against than in favour of entry into Eastern Europe in the pharmaceutical industry. First, the cry-word of the industry in the 1990s is closing factories, rather than opening up new ones, since economies of scale are large and R&D facilities highly concentrated. Second, governments urge firms to sell at the same price globally. This discourages entry in Eastern Europe since the price that the products can be sold at there is lower than the price in the traditional markets that the pharmaceutical companies operate in. Import from Eastern Europe to high-price countries should be avoided. Third, in the West, increasing health care expenditures are criticised and downsizing of public expenditure on healthcare is underway in most countries. This means that there will be less re-imbursement of certain drugs developed by the pharmaceutical industry and that drug

consumption will decline as a consequence of that. Regulation of newly developed drugs needs ever more justification by proven cost effectiveness compared to other labels that are already in use.

The situation in Eastern Europe, however, is slightly different from the one in Western Europe. There is both a quantity and quality gap in healthcare. The differences concern health, income and capacity for healthcare provision. Healthcare provision will catch up with Western Europe (according to OECD study about in 2025). Healthcare will be more than life-saving as in developing countries.

Table 35: Characteristics of health, income and healthcare provision in Eastern Europe

Health in Eastern Europe
- life expectancy is lower in Eastern Europe (OECD report); Hungary has the lowest life expectancy in the OECD and life expectancy in Hungary has, contrary to almost all other countries, fallen over the last twenty years.   - the main reasons for shorter life expectancy are unhealthy habits such as smoking, alcohol abuses and heavy saturated animal fats consumption

Income in Eastern Europe
- available income is lower, but expected to rise and costs were traditionally lower from the patient's point of view   - if GDP rises, healthcare expenditures rise more than proportionally, as healthcare is a luxury but necessary product

Healthcare provision
- in Hungary, there is an overwhelming excess supply of specialists   - the use of pharmaceutical products differs from the rest of Europe. Almost one fourth of the products sold in Poland, for example, are *generics that are less expensive.*   - healthcare is excessively hospital-centric, the pattern of treatment is specialist-based and consumption of drugs concentrated in hospitals; home-based care is neglected as is the provision of nursing-homes instead of chronic-care hospital beds   - there are perverse incentives both for doctors and healthcare administrators because of inadequate supervision of billing by the state administrator; so, physician prescription habits are not rational   - insufficient number of general practitioners as gatekeepers for first treatment and these general practitioners provide fewer services than they could do   - irrational investment decisions by hospitals, the reason being that the payment systems for inpatient and outpatient hospital care does not include capital costs in their fee structures;

- hospitals only have the capacity to manage labour costs; they do not properly amortise investments

- *pharmacies* are *heavily restricted* in their operations; they serve no apparent economic or medical purpose and are subject to an excessively rigid pricing system

- *no competition* in the *distribution system; the system is fragmented so that regional operators have monopoly positions (e.g. Poland, Hungary)*

- traditionally, *self-medication* is higher than in Western Europe; this means that OTC products have higher sales than in the West

- *rates of subsidy provided on drugs* are higher than the European average

- health insurance systems are very limited among individual employees. The Glaxo-Wellcome staff in Russia, for example, all have private health insurance, which is very exceptional in Russia.

- Eastern European countries hold on to one and the same health service for everybody. There is no two-tier system such as in the UK

- Eastern Europe is traditionally strong in life long education. Pharmacy, chemistry and chemical engineering are well developed to such an extent that *Western products used to be copied*; this constitutes a problem for pharmaceutical companies willing to enter. The non-existence of a patent protection system enabled this practice.

- In Eastern Europe, *registration is more difficult* for Western companies. In Hungary a drug reimbursement scheme was proposed that favoured local manufacturers in 1992, against which Western producers lobbied successfully.

- A major obstacle is that *patents are not respected*. Local copies of Western products appear on the market at much lower prices. These are, for instance, products from India, beside Eastern European products. As soon as a patent comes off, which is after 16 years on average, a generic version of the medicine is launched.

- More healthcare is required, but not yet expected in the short term.

Since the presence of pharmaceutical industry in Eastern Europe depends on health care expenditures, we look into evidence that provides an idea of the patterns. The 2000 OECD report shows that, expenditures on healthcare in, for instance, Hungary, as a share of GDP, are among the lowest in the OECD. They amount to 6 % of Hungarian GDP and are the 5th lowest out of 29 countries, with only Turkey, Korea, Mexico and Poland showing lower percentages. The percentage of pharmaceutical expenditures as a percentage of total healthcare expenditures is comparable to countries such as Greece and Portugal. The ratio of public expenditures on pharmaceuticals as a

percentage of total public healthcare expenditure is comparable to Portugal. In Greece, pharmaceuticals make a much lower fraction of public healthcare expenditure.

Table 36: Total and disaggregated pharmaceutical and health expenditures for 1998 in 9 selected countries of Western and Eastern Europe and the USA

	Hungary[1]	Czech Republic	Greece	Portugal	Spain	Austria	UK	Germany	USA
	(% of GDP)								
Pharmaceutical expenditures	1.8	1.9	1.8	2.2	1.5	1.1	1.1	1.3	1.2
Public expenditures on pharmaceuticals	1.3	1.5	0.3	1.4	1.1	0.7	0.7	1	0.2
	(%)								
Share of:									
Total expenditures on pharmaceuticals in total health expenditure	26.2	25.9	26.6	26.4	20	14.1	17	12.7	8.8
Public expenditures on pharmaceuticals in public expenditures on health	22.7	23.3	5.7	27.7	18.9	11.6	12	11.8	2.7
Public expenditures in total expenditures on pharmaceuticals	70.4	83.2	16.6	63	74.4	58.9	63	72.6	14.5

[1].*1997 for Hungary*
Source: OECD Health Data 98 and HIFA (Health Insurance Fund Administration)

Per capita, Hungarian health care expenditures are about half the level of Austria (49 per cent) and Spain (44 per cent) and 36 per cent of the OECD average (Table 37). Relative to countries with similar income levels such as Portugal, Hungarian healthcare expenditures are under the average. In terms of per capita public expenditures, public health care expenditures in Hungary have decreased between 1992 and 1996, both compared to the OECD average and to the less developed OECD countries (Spain and Portugal) (Table 37).

Table 37: Hungarian health care public expenditures as a percentage of the OECD average healthcare expenditures and compared to selected countries - Austria, Spain and Portugal – 1992 and 1996

	Public expenditures at exchange rate (%)		Public expenditures at PPP (%)	
	1992	1996	1992	1996
OECD average = 100	21	20	38	36
Austria = 100	19	16	51	49
Spain = 100	30	30	50	44
Portugal = 100	59	51	108	87

Source: OECD Health Data 98.

Overall, the observed spending pattern in Hungary, for instance, is not very different from that observed in other lower income OECD countries and it is converging to this norm. There are many physicians with adequate training. So, the capacity for medical treatments is available, but it is mainly a lack of financial resources that makes the region different from Western Europe. The apparatus is fully developed and available, though.

Table 38: Health-sector employment in the OECD – per 1000 population (rank between brackets)

	All health-care workers	rank	Physicians	rank	Specialists	rank	General Practitioners	rank	Nurses	rank
Australia	32.3	7	2.5	19	0.9	15	1.3	4	9.6	6
Austria	..	..	2.8	14	1.5	10	1.3	4	8.7	9
Belgium	21.1	13	3.4	5	1.6	8	1.5	2	6.5	15
Canada	25	10	2.1	22	0.9	15	0.9	9	8.9	8
Czech Republic	**21.9**	**12**	**2.9**	**11**	**2.2**	**2**	**0.7**	**13**	**8.1**	10
Denmark	18.9	16	2.9	11	0.1	24	0.6	16	7	14
Finland	40.2	3	2.8	14	1.6	8	1.2	7	..	..
France	26.3	9	2.9	11	1.5	10	1.5	2	5.9	16
Germany	28.5	8	3.4	5	2.1	4	1.1	8	9	7
Greece	12.2	23	3.9	4	2.1	4	1.3	4	3.6	22
Hungary	**16**	**21**	**3.5**	**4**	**2.7**	**1**	**0.7**	**13**	**4.9**	19
Iceland	33.6	5	3	9	..	..	0.6	16	7.3	13
Ireland	18.1	17	2.1	22	0.3	23	0.5	23	14.8	2
Italy	18	19	5.5	1	0.5	21	..	..	5.5	18
Japan	20.4	14	1.8	25	..	..	..	..	7.4	12
Korea	5.7	26	1.1	28	0.7	18	0.6	16	2.6	24
Luxembourg	18.1	17	2.2	21	1.4	12	0.8	10	..	..
Mexico	6.2	25	1.5	27	0.7	18	0.5	23	1	25
Netherlands	23.8	11	2.6	17	0.9	15	0.4	25	..	..
New Zealand	17.2	20	2.1	22	0.6	20	0.8	10	10.2	4
Norway	71.4	1	2.8	14	1.8	7	0.8	10	14.9	1
Poland	**..**	**..**	**2.4**	**20**	**..**	**..**	**1.8**	**1**	**5.6**	17
Portugal	12.3	22	3	9	2.1	4	0.6	16	3.5	23
Spain	11.9	24	4.2	2	..	..	..	..	4.5	20
Sweden	39	4	3.1	8	2.2	2	0.6	16	10.2	4
Switzerland	51	2	3.2	7	1.1	14	0.6	16	13.8	3
Turkey	3.2	27	1.1	28	0.5	21	0.7	13	1	25
United Kingdom	20.3	15	1.6	26	..	..	0.6	16	4.5	20
United States	32.6	6	2.6	17	1.2	13	0.2	26	8.1	10
Average	23.9	..	2.7	..	1.3	..	0.8	..	7.7	..

Source: OECD Health data 98, Central Statistical Office

Production in the pharmaceutical industry involves three stages. A first stage is primary production or actives supply. This consists of the chemical synthesis of raw materials. These factories look more like oil refineries with pipes etc. Glaxo-Wellcome has only three such production sites in the West: one in Egypt, one in Spain and one in the UK[101]. There is no demand for primary production in Eastern Europe. Second, those products are transformed into tablets, creams, injections and other pharmaceutical forms. Finally they are packaged in the third stage. The primary actives supply is basically chemical processing and generates little employment. The packaging stages are more labour intensive and, hence, generate more employment than other production activities. The packaging needs to contain the drug medical composition in the right languages. It can hardly be regarded as real manufacturing, but brings the goods from semi-finished goods to foils and carton.

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[101] Further, given the population of the region, it has also actives supply in India, Bangladesh, Pakistan, Singapore and Australia.

VI.2.4. Investment motivation in Eastern Europe for Glaxo-Wellcome Plc.

To pharmaceutical companies, emerging markets are different from both developed and developing environments. In Western highly developed countries healthcare expenditures are high. They are, for instance, 8 per cent in Belgium's GDP, and 11 to 12 per cent of US GDP. In developing economies health needs are more life-saving oriented and budgets allocated to them were limited. Eastern Europe after transition is, from a market point of view, a region in between. The health of its population is more affected by characteristics typical of a developed economy as far as its diet and causes of mortality is concerned. Therefore, the range of mid-priced prescription drugs is expected to boom in Eastern Europe. Also, OTC products in Eastern Europe are booming and are equal to as much as ¼ of drug consumption.

From the point of view of the Eastern European companies, many of them went bankrupt after 1989. Successful ones[102] operated either in distribution or in special niches. The Glaxo commercial co-ordinator for Central and Eastern Europe cites the example of Pleva in Croatia. Pleva was a relatively small company Glaxo co-operated with already long before 1989. Whereas many Eastern European companies went bankrupt after 1989, this company was able to survive thanks to its fairly original R&D and after 1989, it became quickly noted on the London stock exchange. From its home country Croatia, it expanded itself into the Czech and Slovak Republics and into Slovenia, all former parts of Yugoslavia. The management of Glaxo believed that this company would never disappear overnight and be able to keep its viable business in Central and Eastern Europe.

The timing of entry was for a big part determined by the purchasing power of the Eastern European population. As long as the latter remained low, and, therefore, the price that could be charged in Eastern Europe was far below the one charged in the West, there was a fear of parallel import that could destruct these highly profitable Western markets. In Eastern Europe patents were not respected. Glaxo's product Zantac was locally copied. Even after the accession of the republics of former Yugoslavia to the European Union, it will not be possible to retroactively patent older products. The price is therefore low. This would be an argument against entry in Eastern Europe, because the price in Eastern Europe is much lower than in traditional markets. The fear was that

Glaxo's subsidiary in Eastern Europe is in compliance with the usual role of every subsidiary policy of Glaxo-Wellcome worldwide. Most Glaxo subsidiaries consist of a sales and marketing unit, a unit for finance, information technology and administration, a medical unit, and, only exceptionally, a production factory will be encountered. The medical unit is involved in clinical research and has also a regulatory function. A factory for production is optional, as can be seen in figure 18. When an investment is made, it needs to fit the product portfolio of the industry. As can be seen in figure 18, Glaxo-Wellcome's operations in Eastern Europe are limited to clinical development. There is neither R&D, nor biotechnology or actives supply like in other regions the company operates in.

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[102] The Eastern European companies themselves were unable to finance R&D. From their point of view, consequently, given the opportunities of transition, there were two options open, either to team up with a research based Western company, or to try and develop their own R&D. The latter option remains too costly. Many Eastern European pharmaceutical companies went bankrupt.

Figure 18: Typical organigram of a wholly owned subsidiary of GW

sales marketing	finance IT administration	medical	factory

medical →

clinical	regulatory
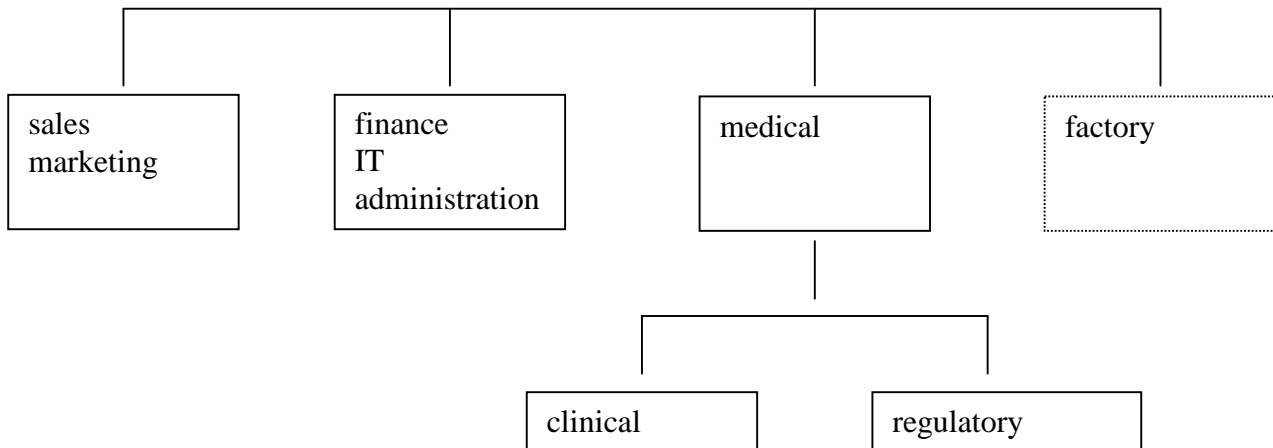
Table 39: Glaxo-Wellcome's operations in North America and Europe, Africa, and the Middle East)[1]

	R&D	biotechnology	clinical development	actives supply	product supply
North America					
US	X	X	X		X
Canada	X		X		X
Europe, Africa & Middle East					
Austria			X		
Baltic States			X		
Belgium			X		
Czech Republic			X		
Denmark			X		
Egypt				X	X
Finland			X		
France	X		X		X
Germany			X		X
Hungary			X		X
Iceland			X		
Ireland			X		X
Israel			X		
Italy	X		X		X
Kenya					X
Netherlands			X		
Norway			X		
Poland			X		X
Portugal			X		
Saoudi Arabia					X
South Africa			X		X
Spain	X	X	X	X	X
Sweden			X		
Switzerland	X		X		
Turkey					X
UK	X	X	X	X	X

[1]*The other regions are Asia Pacific, Japan and Latin America.*

Table 40: Glaxo-Wellcome's total sales in 2000 by geographical region

	million pounds	% of total
USA	**7,705**	**50**
Europe	**4,268**	**28**
France	786	5
UK	701	5
Italy	574	4
Germany	482	3
Spain	424	3
Central & Eastern Europe	472	3
other Europe	829	5
Rest of world	**3,456**	**22**
Asia Pacific	1,049	7
Japan	832	5
Latin America	682	4
Middle East, Africa	511	3
Canada	382	2
	15,429	**100**

source: GW Annual Report 2001.

VI.2.5. Process of negotiation until the arrival at an investment decision

As the start, the existing non-equity licensing agreements were kept, but no follow-up investment was allocated to these licensees. In 1989, the first strategy of GW was to set up own branch offices in the Eastern European countries where GW had not been present before. There remains a fear of copying and import of Eastern European products in Western Europe that also influences Glaxo's investment strategy.

The existing licensing agreement with Pleva, the Croatian licensee of GW, was revised. In the past, Glaxo, like other Western pharmaceutical companies, had received products from its licensee. Given the nature of the plan, this system had been organised through the ministries of trade and the export and import agencies. From 1989 on, these official agencies introduced modern sales and marketing, training and hiring practices more rapidly than did Pleva itself. After catching up, Pleva changed also into a market-oriented company. In 2000 Pleva operated already beyond the frontiers of former Yugoslavia. We describe the investment in Hungary in section VI.2.5.1. from its exploration to the stage of a fully fledged wholly owned subsidiary.

VI.2.5.1. Greenfield site investment in Hungary – the investment process

Hungarian companies formed extensive links with western companies for the manufacturing and marketing of pharmaceuticals. Drug introduction in Hungary proved to be not so easy. In 1992 twenty-four multinational pharmaceutical companies operating in Hungary came together to lobby successfully against the introduction of a new drug reimbursement scheme that favoured local manufacturers. They formed the Association of International Pharmaceutical Manufacturers. They include Merck & Co., Bristol-Myers-Squibb, SmithKline Beecham, Upjohn, Eli Lilly, Bayer, Sandoz and Roche and represented 24 per cent of the Hungarian pharmaceutical market at the time.

Medical equipment companies also invested in Hungary. In 1995, the medical equipment firm Baxter upgraded its Budapest office to a wholly owned subsidiary. Eagle Medical Products acquired a 51 per cent stake in the Hungarian medical equipment distributor Omker Rt. Evergreen Overseas Associates acquired a 30 per cent share in Medicor X-Ray, a manufacturer of X-ray generators,

diagnostic devices and picture transmitters.

The company had been present in Hungary since 1985 already and was the first foreign pharmaceutical company to form a limited liability company in the country. It was also one of the first to receive wholesaler rights in Hungary. In 1992-1993 the company started to consider investment. The impulse came from the local general manager and his 20 representatives across the country. This man identified opportunities. The managers of the local Glaxo branch offices had remained in office from the early 1980s on into the 1990s, as well as the president. So, the initiative for the investment started from within Glaxo. At Glaxo, the view was held that there were no good acquisition candidates in Hungary. Acquisition candidates that Glaxo had considered had too many obsolete assets. It was not possible to invest and sell off the obsolete assets, the so-called asset stripping. A consensus was reached that there needed to be a green-field site investment.

In 1994 a decision was taken about the sites, the size of the investment, and the products that were aimed purely for re-export. The site was a special development area at the outskirts of Budapest. The initial investment size was £7.5 million. Distribution within the country was still complicated. The Budapest factory would handle packaging and warehousing needs for cephalosporins and non-antibiotics for the local market. The warehouse could store up to 1,000 pallets and the packaging operation could handle three million packs using one automated and four manual lines. Beside, the company distributed all the products sold by the company in Hungary.

Land was bought, the engineers were sought and a construction company was asked to build the factory. It opened in 1996. Production was aimed at re-export. Beside, finished products continued to be sold from the UK.

Glaxo's investment in Hungary:

1992: consideration of the investment
1994: decision for a green-field site investment
1995: start of the construction of the company
1997: opening of the site

The Hungarian investment did not add value to the businesses of Glaxo-Wellcome, but the main aim is met: a local limited production of packaging is installed and through local presence contacts with the regulatory bodies of the country are improved. The fact that the green-field looks more like a cultural establishment than an industrial one is an expression of this type of non-production investment. The investment is a means to co-operate with the country's health ministry and get access to doctors. GW offers post-graduate training, for instance, at the facility it established.

Later on in 2001, due to the network rationalisation GlaxoSmithKline programme as a result of the merger of GlaxoWellcome with Smithkline Beecham, production was ceased in Hungary…

VI.2.5.2. Glaxo's investment in Poland – Polfa Poznan: the investment process

Before the collapse of communism, Poland had a substantial pharmaceutical industry that supplied both Poland and other Comecon markets. The Polish pharmaceutical industry was considered to be more productive than many other national industries, although volume output fell after 1989.

Polish pharmaceutical industry had 200 pharmaceutical producers, but production was concentrated in the former state-owned Polfa group that counted 17 industrial sites, of which 15 manufacturing finished products. By 1995, Poland's large pharmaceutical industry supplied about 60 per cent of the country's pharmaceutical needs. The Polfa factories produced 50 per cent of the 2,000 pharmaceuticals produced in Poland. The largest Polfa factories by turnover were: Tarchomin (near

Warsaw), Starograd (near Gdansk), and factories in Poznan, Kutno, Warsaw and Jelenia Gora. The Polfa companies represented 75 % of sales by domestic producers, with the first four together accounting for 50 per cent of sales by domestic producers. Polfa suffered from the fact that it had to pay high duties on imported raw materials, semi-finished products and machinery, while imported finished preparations from the EU had been freed of duty. The pharmacies (5,000 in Poland, of which 75 per cent had been privatised by 1993) preferred imported drugs over Polfa products even at a higher cost. Hospitals and state-owned companies could also directly import drugs from abroad.

Although Poland had the capacity to produce about four-fifths of the drugs it needed, it still depended on imports for many raw material and semi-finished products. Imports of pharmaceuticals increased heavily after transition started. Although in 1995 imports accounted for 14 per cent of the volume of demand, price increases made that imports were 48 per cent of the value in 1992 compared to only 10 per cent in 1989.

The privatisation of the pharmaceutical industry had caused a dramatic increase in the cost of drugs, which by 1995 absorbed about 34 per cent of Poland's total health budget, which is even higher than in Hungary and the Czech Republic.

The organisation of distribution was as follows. Before transition, the state owned CE Farm (a central drug store) and Ciech (the state-owned trade organisation) used to be responsible for the distribution and wholesale of drugs and medical supplies. After transition, these organisations split up into many separate companies. In 1995, there were already over 700 private wholesalers, 17 regional CE Farm wholesalers apart from CE Farm in Warsaw. Beside, there were relatively large new wholesalers, some of which were joint ventures. Three Western wholesalers that were joint ventures had entered as well: ORFE, OCP in 1990 and Gehe in 1992. The fragmented structure of the distribution system makes it necessary for the pharmaceutical companies that enter to operate with several of these distributors and wholesalers.

Glaxo's investment in Poland:
July 1997: start negotiations
January 1998: 80-15-5 joint venture acquisition, the first major one for Glaxo
2000: buy-out of employees' shares by Glaxo-Wellcome

1. launch and exploration

Glaxo had entered the Polish market already in 1984. It had a corporate office in Warsaw and a warehousing and packaging facility at the outskirts of Warsaw in Duchnice. Poland ranks number 25 in the world pharmaceutical market in terms of its sales potential. Glaxo-Wellcome was looking for an acquisition in the emerging markets. An investment had initially been considered in 1992-1993. Poland was a strategic country and its pharmaceutical industry was relatively quickly privatised.

The local GW Polish manager and Mr. Davidson, Director Glaxo-Wellcome Central and Eastern Europe, routinely visited a number of factories in Poland. The aim was to discuss business deals and exchange information in different fields.

In 1996 the Polish government had decided to split the pharmaceutical industry into 15 independent businesses that were, prior to privatisation, based on the Polfa factory. The criterion for the split was production. The fifteen companies remained state property. Out of these 15 businesses created, Glaxo identified 2 potential candidates for acquisition. At that time, it was not allowed anymore to visit these factories, nor could one get any appointments anymore. The Polish government wanted guarantees against 'asset stripping' by the acquirer. The Ministry of the Treasury of Poland, in charge of the tender, was advised by a consulting firm. The Treasury itself knew nothing about pharmaceuticals and the local managers of the Polfa firms were very suspicious of the ministry. The

government also worried about corruption.

The competitive tender started off in 1996. The initial proposal by the Polish government required the potential investor to develop the business, to undertake some capital investment in facilities with a guarantee to protect employees. The latter aspect needed to take the form of a social contract. Further, the price of the business was proposed.

Glaxo-Wellcome's interests were that the business should be profitable, offer a good range of products and the guarantee of a good market share of at least 3 to 3.5%. GW itself had already 3% in Poland. The Polish ethical prescription drug market was valued at £830 million (IMS data; not all the OTC business is included). GW identified 2 acquisition candidates that were researched by independent researchers. There was some overlap in production. The company at Poznan was preferred because it had the following advantages. Its product range was broad enough, since it included self-medication (OTC drugs such as paracetamol, through solutions, vitamines, etc…), gastro-enterological prescription drugs, respiratory and dermatological products. The volume of prescription drugs was sufficiently high. Polfa Poznan had a sufficient market share, although Glaxo-Wellcome would need to boost marketing efforts.

The Polish government selected three possible acquirers: Glaxo-Wellcome, Bristol Myers Squib and the Norvegian company Nycomed. Glaxo-Wellcome was selected to enter negotiations on July 9th, 1997.

2. negotiations and 80-15-5 joint venture outcome between Glaxo-Wellcome, the Polish Ministry of Treasury and the employees of Polfa Poznan

The Polish government chose Glaxo and negotiations of Glaxo in Poland lasted until the signing of the deal on January 28th, 1998. Weekly a team of 40 people specialised in finance, legal aspects and buildings from GW visited Warsaw. Contacts with the factory in Poznan were not allowed. This resulted in an agreement under the following terms. The firm was taken over at a price of 220 million USD. GW obtained 80 % ownership; the remaining part was divided into 5% ownership by the government, and 15% by the employees. It was agreed upon that the shares held by the employees had to be retained for two years. Afterwards, Glaxo-Wellcome was allowed to buy them at a fixed price. GW would invest 60 million USD in the firm, an amount that had to be expended within a time frame of 2 years for the renovation of infrastructure, product lines, warehousing and utilities. An existing licensing[103] agreement of Polfa Poznan with Boeringher Ingelheim was continued, but reviewed by Glaxo. An existing sutures business licensed from Sherwood, David & Geck (American Cyanamid) had to be revised. The employees of Polfa Poznan, that had changed its name into GW Poznan, received a special payment shortly after the agreement and training was provided. A number of new chemical entities started to be manufactured at Poznan, as well as new presentations and formulations of existing products.

3. The buy-out: increase of ownership from 80% to 95%: the shares of the employees were bought up at the pre-specified price

In 2000, the ownership of 80% was increased up to 95%. This was a transfer of the participation by the employees towards GW.

It was stipulated that the government kept a golden share of 5 per cent. This is typical of a government that reduces its share. In general, a golden share or special share of the Polish government

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[103] Other companies also had manufactured under license, such as co-operation agreements with Sandoz, Rhone-Poulenc Rorer, Pfizer, UCB, Elf Sanofi Winthrop, Chinoin, SmithKline Beecham, Bristol-Myers Squibb and Searle.

might function as a more than proportional voting right, such as, a blocking minority for certain decisions. In this case, the golden share is not meant as a first refusal right.

The Polish government has a blocking minority with respect to certain decisions made by Glaxo-Wellcome in Poland. The golden share is a special share mechanism so that Glaxo needs to do everything the seller, the Polish government, wants and if the company fails to meet the requirements, it needs to pay a penalty to the Polish government. This blocking minority can be operational during a fixed period of 10 years. The mechanism ensures that the buyer honours some obligations. The Polish government fixed the fine in case of an infraction at 220 million USD, an amount equal to the investment sum.

In general, a first refusal right would mean that the government could buy new shares if they would be emitted. This is a usual clause to avoid that the company comes into foreign hands. In this case it is not valid, since the Polish government precisely wanted the auction of the pharmaceutical industry to foreign companies.

Glaxo upgraded its investment in GW Poland, the site at Warsaw. Gradually, the intention of the company was to merge GW Poland and GW Poznan.

There were some apparent advantages and disadvantages of the Polish company. As far as its employment is concerned, Polfa Poznan had already reduced its staff and the company was not overstaffed. It employed 1,400 people while several others employed 3,000 and had an appalling productivity. Polfa Poznan's workforce was highly trained. Manufacturing facilities responded to the General Manufacturing Process standards. It was the second largest pharmaceutical company in Poland in terms of market share[104]. Polfa's OTC pharmaceutical business accounts for 30% of sales. The company had strong local brands through which Glaxo-Wellcome could expand its sales. By the acquisition, Glaxo-Wellcome was able to expand its product portfolio in order to satisfy the particular needs of the Eastern European markets. Polfa Poznan produced medicines for diseases of the respiratory[105] and alimentary tract[106]. These are OTC vitamins that belong to a strategic area for Glaxo-Wellcome in Poland, Eastern Europe and other emerging markets. Other products of Polfa Poznan are neurological and dermatological medicines. As a result of the acquisition of the factory at Poznan, its share of generics in total sales by GW in Poland had become higher. Glaxo had e traditionally exported to the communist bloc, mainly to Russia. By the acquisition of Polfa Poznan, it could bring a significant contribution to expanding sales by Glaxo-Wellcome in Eastern Europe

GW judged that out of all Polfa companies, the company Glaxo took over at Poznan was the best out of those fifteen companies the government had split the Polish pharmaceutical industry in as far as its management style was concerned. Some of the other Polfa companies had gone bankrupt. A mix of the old and a modern plant was operationalised and business was reasonably modern.

Despite its many advantages, the main weakness of the acquired company was marketing. The culture and management style were old fashioned, like in Western Europe forty years earlier. There was one fax in the company and no electronic mail. Communication was poor. In two years, exchange had become already much more intense. The company had an R&D facility. Equipment and the production process were modernised.

Beside the investment at Poznan, Glaxo also invested in the expansion of its Warsaw corporate office that employs over 220 people. In Duchnice, a new warehousing and packaging facility was used that is the manufacturing location for antibiotics, while the Poznan factory produces all non-antibiotics

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[104] Polfa Poznan was the third company in terms of turnover, but second according to market share.

[105] The company Polfa Poznan had particular strengths in the respiratory area.

[106] For gastro-enterological drugs, Eastern Europe has an important aspect in the diet. Many people suffer from gastro-entereological diseases in Poland and Hungary because of the specific food habits. Because of the frequency of this pathology, Eastern Europe has fairly good gastro-enterologists and Glaxo-Wellcome developed good contacts with them.

for the Polish market. In Poland, there is, beside production, also significant investment in development. Clinical research is local, as in most countries. Even before 1989 some key trials had been undertaken in Poland. It is less expensive, but that is not the only reason. The main reason for clinical trials in Poland is the easy access to the persons for experiments. The patients are less demanding. Another difference is that patient compliance to what the doctor tells them is much higher in Eastern than in Western Europe.

In all, the presence in generics might seem unusual for such a research-based firm as GW. But market share in both generics and prescription drugs was expected to increase by the investment in Poland. The antibiotics (mainly in respiratory) produced at the Poznan site are affordable for Polish healthcare provision. Even if these products might not be profitable yet given the fixed prices in Eastern Europe, market share was already built up from the beginning. In the medium run, Glaxo expected that it would become possible to file own GW products in the region. Market share is believed to rise in Poland from 3.5 to 7.5% of the market. A good business could be acquired and the project was seen as very successful. Polish sales represent 34% of total sales by GW in Eastern Europe in 1996. The presence in the market resulted in contacts with the regulatory bodies that could prove useful for the later introduction of Glaxo products.

Glaxo-Wellcome integrated the two companies, Glaxo-Wellcome Poland in Warsaw and the Poznan company. With its 7 to 8 % market share GW became the biggest pharmaceutical company in Poland. The company exported to Western Europe and from Poznan to Russia. other parts of Eastern Europe.

VI.2.5.3. The resulting scope of involvement of Glaxo-Wellcome in Eastern Europe

Table 41: Overview of the investment projects of Glaxo-Wellcome in Eastern Europe

year of entry	host country	town	ownership	way of growth	employment	investment amount
1998	Poland	Poznan	joint venture	acquisition	1700 employees	220 million $
1996	Poland	Warsaw	wholly owned	green-field	20 employees	7.5 million $
1997	Hungary	Budapest	wholly owned	green-field	n.a.	12.5 million $

Table 41 gives an overview of GW's operations in Eastern Europe. Since the merger in 1995 with Wellcome, the operations in the CEECs were merged. Wellcome had only representative offices in Eastern Europe.

Beside, GW has representative offices from the 1970s on in Bulgaria, Poland (Warsaw), Croatia (Zagreb). Already back in the 1950s GW co-operated with a company, Pleva, in Zagreb, Croatia. This involved no investment by Glaxo, but licensing contracts. Technology and know-how is transferred. All big European (German, Swiss, British) multinationals in the pharmaceutical industry had their own branch offices in the region. The responsibility of these branch offices is limited to sales and marketing.

VI.2.6. The comparison between preferred and chosen entry mode decisions by GlaxoWellcome

For both projects, Glaxo-Wellcome answered in the survey that it had preferred a wholly owned green-field entry.

The model of Chapter V based on all investment projects predicts that the Glaxo-Wellcome investment project would then have the following characteristics: high R&D, high international experience, high operational experience, high contractual uncertainty, high global concentration, and a

'local for global' motivation. In Hungary, the investment complies with this preferred entry mode. In Poland, it deviates from it. We look for the ownership decision (V.2.6.1.) and for the establishment mode decision (V.2.6.2.) what the reasons are why the investment in Poland deviates from the preferred entry mode and why the Hungarian investment complies. We might find other specific reasons outside the model why the investors deviate.

VI.2.6.1. The ownership decision

In the case of the investment in Hungary Glaxo has full ownership. In Poland a joint venture was set up.

Local for global.
A pharmaceutical company as GlaxoWellcome invests in production abroad that is intended for the world market. Therefore it prefers wholly owned subsidiaries.

Market share.
In prescription drugs, the market is highly concentrated and governments in the West are sometimes urging companies to file drugs for registration with the intention to stimulate competition to get prices down. They prefer majority ownership to be able to control operations.

For generic (or over-the-counter) drugs the market is much more fragmented than for prescription drugs and, therefore, a joint venture might be possible. Glaxo, not being a company that produces generics in general, was interested to expand its market share in generics, however. The reason was that the cheaper generics were a higher proportion of sales in Eastern Europe. Second, the sale of Generics could have a positive impact on a later sale of GW's own prescription drugs. Third, once a generic drug is available it is much more difficult to try and obtain a competitive price to compete against it. Glaxo sold only Poznan products, mainly antibiotics (respiratory for the major part).

The Polish government forced Glaxo to allow for a 5 % share ownership retained by the Polish government for a period of at least 5 years for restitution claims made by owners on the land prior to the nationalisations of the late 1940s and 1950s. The government also insisted on keeping some percentage of ownership as a golden share. This golden share or special share of the Polish government might mean a more than proportional voting right, such as a blocking minority for certain decisions or a first refusal right.

There is a blocking minority for certain decisions made by Glaxo-Wellcome in Poland. The golden share is a special share mechanism so that Glaxo needs to do everything the seller, the Polish government, wants and if the company fails to meet the requirements, it needs to pay a penalty to the Polish government. The period is fixed to 10 years, the mechanism ensures that the buyer honours some obligations. The Polish government fixed the fine in case of an infraction at 220 million USD, equal to the investment sum.

Employee ownership of 20 % was also a requirement of Polish privatisation law. These individual shares were to be retained for two years after which they were sold to GW at the price fixed in the agreement. When it would have been possible, GW would have invested in a wholly owned subsidiary right from the beginning, but this was not possible by the constraints of the privatisation program. The result was a temporarily partial ownership in Poland with a real option for a buy-out and an immediate full ownership in it as soon as circumstances would permit. So, there is an institutional factor of government and employee ownership that is not part of the model that explains why a joint venture was set up in Poland.

VI.2.6.2.The acquisition versus green-field decision

The choice in Hungary and Poland was also different. The preferred and real choice in Hungary was a green-field investment. An acquisition of a company with 1,000 employees was considered in Hungary, but rejected, because it was too problematic because of too many obsolete assets. Hungarian pharmaceutical companies demanded acquisition. The final choice in Poland fell upon an acquisition, which is different from the preferred entry mode.
R&D.

Globally, GW is not a pharmaceutical company producing generics. Technical knowledge of the composition of the molecule and of production techniques is highly unique and patented. Research-based pharmaceuticals deliver sophisticated drugs available on prescription because of their specific characteristics. Globally, joint ventures are set up with other large pharmaceutical groups or products licensed from each other and distributed. However, in Eastern Europe, the company did not invest for the R&D content of a local firm in Eastern Europe. For both projects in Hungary and Poland, the R&D content of the investment is low and therefore not predicting the preferred establishment mode.

Advertising.

In the model GW had the characteristics of low sales specific assets. This means that the expectation of the investor was not that they could acquire brands of global importance in Central and Eastern Europe. This explains the preferred mode. The reason for a deviation from the 'routine' of setting up green-field investments from scratch in Poland is that the early acquisition of Polish generics could positively influence the later process of regulation and sales of GW's own prescription drugs in the same market.

International experience.

Glaxo-Wellcome has a broad experience both in developed markets and in emerging markets. This complies with the preferred entry mode.

Operational experience.

Glaxo-Wellcome had already contacts in Poland since 1984 via its representation office, via licensing and via sales in the region. The experience had been positive and helped probably to gain the competitive bid for Polfa Poland in 1997. Perceived distance is short for the British company, certainly 'psychic distance' given the local experience.

external market uncertainty.

Expected demand variability in Eastern Europe is low in the short run. The Polish factory acquired was seen as the best candidate in the industry. The initial joint venture with the government and the employees of Polfa Poland proved a means in reducing uncertainty about regulation and operation in Poland. It is a bridgehead towards further sales expansion in Eastern Europe

contractual uncertainty.

The aggregated contractual uncertainty across industries was high in Poland and in Hungary and therefore, the preferred entry mode complies. The contractual uncertainty is the opposite of the advancement in transition. One major aspect of it is the advancement in privatisation. For the pharmaceutical industry, the advancement in privatisation was, however, much higher in Poland than in Hungary. In Poland, the pharmaceutical industry was split up in ten companies and a tender was organised in 1997. The Hungarian pharmaceutical industry was far from being privatised at that time.

For that reason, the real entry mode in Poland could be an acquisition. Glaxo officials argued that they wanted to forestall capacity of the generic respiratory drugs of Polfa Poznan in the largest market, Poland, to prevent others from getting access to local brands and, in the longer run, to distribute its own products in the Eastern European market.

VI.2.7. Conclusions of the Glaxo-Wellcome case

For the pharmaceutical industry there was theoretically no need for direct investment in Eastern Europe in the mid- 1990s. If a pharmaceutical company did invest, it was persuaded to "concessions" with relatively small investment amounts. Even the investment amount of 220 million $ in Poland was small relative to GlaxoWellcome's cash flow. Moreover, this investment involved no basic research and development.

Sales in Eastern Europe were very limited before transition. The representation offices sold their products, but they were only distributed to a very limited extent. However, the quality gap between Hungarian and European healthcare systems is likely to be closed within the next 25 years (OECD, 2000). The need for the Eastern European governments to restrain demand through cost containment will continue unabated, but the economy's capacity to pay for healthcare will expand sufficiently rapidly so as to close relatively quickly the current quality and quantity gap with Western Europe.

For GlaxoWellcome, Poland was important because of its future market potential. Based on its population, Poland is the number 25 country as far as sales of pharmaceuticals is concerned. GW wanted to increase its market share in Poland to 3.5 per cent. The motivation to increase market share also determined the timing of entry: GW wanted to be among the first investors. In order to increase market share, it is necessary to get a grip on some market parameters. First, the follow-up of local clinical development is essential in every national market to familiarise healthcare providers with the drugs of the company. Second, it is necessary to obtain speedy registration of products. Both can be carried out without the need for direct investment. However, FDI is believed to be helpful to get easier access to the regulatory bodies to lift obstacles to the registration of GW's own prescription drugs.

The preferred entry mode is a wholly owned green-field investment. If a company deviates from this strategy, as for GlaxoWellcome's investment in Poznan, we found several reasons, namely legal restrictions (for a joint venture) or local relations (to increase market share in generics as a bridgehead for later filing of prescription drugs). Legal restrictions required employee and state participation in Polfa-Poznan that was therefore a joint venture. Once the shared participation was no longer required, the company's employees were bought out in 2000. Because of local relations and the enormous market potential in Poland, Glaxo acquired Polfa-Poznan with local OTC generics (respiratory products) as a first step towards the regulation and sale of its own prescription drugs later. The technological threshold for a green-field investment of that size would have been higher. Access to the local regulatory bodies would have been more difficult. Glaxo's Polish market share increased from to 7.5% through the acquisition. The Polish acquisition in Poznan proved a much more rapid way to fulfil this aim. Compared to that, the Hungarian green-field investment was a small investment and less successful, mainly because of fiercer foreign and local competition and later privatisation of those Hungarian pharmaceutical companies that had survived.

VI.3. INBEV (FORMER INTERBREW) – INVESTMENT ENTRY MODE IN CENTRAL AND EASTERN EUROPE – A LONGITUDINAL STUDY

VI.3.0. Introduction

This is the case of a dominant firm in the global beer industry that was an early follower in Eastern Europe. Since 1993, the company had made more than fifteen acquisitions in Eastern Europe. According to capacity, this Belgian brewer moved during the period of acquisitions in Eastern Europe between 1993 and 1996 from the 17th to the 6th largest brewer world-wide. This was due to the acquisition in 1995 of a major Canadian brewer in the same period as the Eastern European expansion. The case deals with two early investments in Eastern Europe, a rather small early acquisition of three brewers in Bulgaria in 1995-1996 and a later large joint venture acquisition in Russia.

VI.3.1. Sources and interviews

Primary and secondary sources were used and the responsible persons interviewed were: Mr. Thierry Dirick, at the time Business Development Manager, and Mr. Stefan Descheemaeker, Executive Vice President Strategic Planning and Development Department (= Mergers & Acquisitions) and assistant, Mr. S. Gokelaere.

VI.3.2. Identification of the company

Interbrew[107] was at the time of its first investments in Eastern Europe a fully privately owned company with headquarters in Leuven, Belgium. It experiences an enormous growth in the 1990s. In the period 1991-2000, 30 acquisitions were made in 14 countries. Among these acquisitions there were many in Central and Eastern Europe. Parallel to its investments in Eastern Europe, Interbrew did two major acquisitions elsewhere. First, in July 1995, Interbrew acquired the Canadian brewer John Labatt Brewing Limited, the second largest Canadian brewery after Molson. Second, in May-June 2000, Interbrew acquired the brewing activities of the British brewers Whitbread Plc. and of Bass Plc.. These two British brewers had a combined UK market share of 32%. Bass Brewers was the second largest brewer in the UK. By 2000, Interbrew[108] had become the second largest brewer in the world in terms of volume, while it was only ranking seventh in 1996 (Table 44).

Table 42: Interbrew – profits, sales, employees (1993-1998)

(million BEF)	unit	1993-1994	1994-1995	1996	1997	1998	1999
profits (ordinary activities before taxation)	million BEF	4,582	6,088	8,098	10,527	11,280	12,362
sales (million BEF)	million BEF		92,561	115,981	127,746	140,321	175,306
Employees		8,143	13,237	13,735	13,835	16,727	24,348

Source: Interbrew annual reports 1993-1999.

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[107] Interbrew was originally set up as a merger between the Belgian brewers Artois and Piedboeuf.

[108] In March 2004, AmBev and Interbrew merged and adopted the name Ambev. By this merger, it became still bigger.

VI.3.3. Identification of the beer industry and major tendencies

The major competitors in the beer industry in 1996 were, according to capacity, Anheuser-Busch, Miller, Heineken, Brahma (AmBev) and South-African Breweries.

Table 43: Major international brewers, ranked according to capacity in 1996

(000hl)		1993	1996	96/93 % change
Anheuser-Busch	US	102,603	106,904	4.2
Miller*	US	51,633	51,398	-0.5
Heineken	Netherlands	32,494	41,793	28.6
Brahma**	Brazil	25,993	38,291	47.3
South African Breweries*	South Africa	24,197	37,991	57.0
Interbrew	Belgium*	15,695	32,893	109.6
Carlsberg	Denmark	27,495	32,294	17.5
Kirin	Japan	34,090	32,189	-5.6
Modelo	Mexico	23,399	27,395	17.1
Guinness	UK	24,397	26,098	7.0
Danone	France	26,896	25,494	-5.2
Asahi	Japan	16,798	25,300	50.6
Antarctica	Brazil	16,300	23,998	47.2
Stroh	US**	15,050	23,798	58.1
Coors	US	23,294	23,517	1.0
Santo Domingo	Colombia	22,496	22,895	1.8
Fosters/Molson	Australia	32,494	21,299	-34.5
Femsa	Mexico	20,994	20,700	-1.4
Scottish Courage	UK***	7,000	18,295	161.4
Polar	Venezuela	15,302	14,000	-8.5
Total		**558,618**	**646,541**	**15.7**

Source: Beer Marketer's Insights
Figures include all beer volume produced in breweries under the ownership control of the company.
Excludes licensing and non-controlling minority stakes.
*Labatt sale dated to 1/95
**Heileman sale dated to 1/96
***Courage sale dated to 1/95
 *SABMiller is currently one company since 2002.
**Companhia Cervejaria Brahma is AmBev.

1. Consolidation.
In the 1990s, the global beer industry started a consolidation process with large mergers and acquisitions in a response to intensified competition. As a consequence, competition has become global in every country.

2. Excess capacity.
In Western Europe the beer industry has excess capacity in some countries. In Germany, excess capacity is highest and amounts to 30 % of total capacity or between 20 and 30 million hectolitres. This could not be exported to Eastern Europe, because the sales price would be too low. In the UK, excess capacity amounts to 5 to 10 % of production. In Belgium there is no excess capacity. The US brewers have no excess capacity.

3.Increasing economies of scale and reduction in the number of plants.
Beer production is capital intensive and highly automated and new techniques for packaging in cans, for example, require large quantities of incoming inputs in order to be profitable. There are increasing economies of scale at the plant level. Technological progress led to an increase in the minimum efficient scale (the required output that minimises long run average costs) that largely explains the reduction in the number of breweries. Beside economies of scale at the plant level, economies of scale at the level of the firm in distribution and advertising of beer increase minimum efficient scale up to 3 to 4 times the minimum efficient scale required at the plant level. The top 20 international brewers (Table 43) have a capacity of more than 15 million hectolitres. This is three times the minimum efficient scale of 5.5 hectolitres calculated on the basis of published estimates for the seventies (Scherer, Ross (1990)).

4. trend towards premium products
The sub-segments are core lager and premium beers. If the net sales price of a core lager (pils) is 100, a premium beer sells at 150. Much depends on the price differentiation and positioning of the types of beer, which in turn depends on local tastes. Eighty percent of beers are of the core lager type. Another twenty percent is premium beer with a higher value added. In Western Europe, demand for the more expensive premium beers is growing more rapidly than demand for core lager beers. In Eastern Europe, given lower disposable income, there is a market for core lager in the short term and a potential for later development of the more expensive premium beer market.

5. Cost and sales price
The cost of goods consists of raw materials (barley, water), bottles and cans, transportation costs and labour costs. The price of the raw material, barley, depends on the harvest, but is fairly stable. Water is not expensive and its price is not very volatile, compared to many other branches of the food industry, for instance chocolate, with volatile world market prices of their raw materials (cocoa). Bottles and cans are not expensive either. Transportation costs are a depreciation of the investment. Labour costs are equal to 10 to 15% of net sales. Overall, beer is a low cost product with a large gross margin.

Since the production is not labour-intensive, but automated, labour cost differentials do not play a major role in the investment decision. The value added, i.e. the wages and the creativity of the people, is relatively low. There is hardly any other cost beside raw materials, cans and bottles.

In Eastern Europe, hours of work and wages are low. Hence, labour costs are low, given the local wage levels and the fact that, even in the West, labour costs only amount to about 10 to 15 percent of net sales.

VI.3.4. Investment motivation in Eastern Europe for Interbrew

VI.3.4.1. Acquisition of market share in Eastern Europe

Growth of sales is expected in Eastern Europe. Beer sales are positively correlated to GDP/capita. The expectations of a correlation with GDP growth for Central and Eastern Europe are based on prices rather than on volume. There are large price differences between the West and Eastern Europe. Whereas in the US, the price of a hectolitre of beer amounts to 120$, in Russia it is expected to rise from an initial value of 17$/hl in 1990 to 25$/hl within a few years.

Table 44: Annual per capita beer consumption in Central and Eastern Europe and ranking of the countries according to the value of the total market in 1997

	per capita consumption			value of total beer market
	(litres)1990	1996 (litres)	1997 (litres)	m hl in 1997 (change since 1990)
Poland	29	42	47.4	18.5 m hl (+64%)
Czech Republic	154	160	160	16.5 m hl (+4%)
Russia	21	11	11	15.7m hl (-48%)
Romania	46	38	33	7.5 m hl (-29%)
Hungary	98	72	69.5	7.3 m hl (-27%)
Ukraine	27	12	12.5	6.4m hl (-50%)
Slovak Republic	94	92	91	4.8m hl (-5%)
Bulgaria	73	51	41	3.4 m hl (-43%)
Croatia	46	69	75	3.4m hl (+55%)
Slovenia	11	85	85	1.7m hl (-20%)
Lithuania	45	31	37	1.4m hl (-11%)
Latvia	23	27	31	0.7m hl (-11%)
Estonia	53	33	39	0.5m hl (-11%)

Source: ING.

The major beer consumption markets are Poland, the Czech Republic and Russia. Whereas Poland and Russia are large markets in volume, the Czech Republic has an exceptional per capita consumption. Hungary is a relatively less important beer country because it is a wine producing country and wine consumption is higher than beer consumption.

Per capita consumption in Central and Eastern Europe is, with the exception of the Czech Republic, lower than in Western Europe, where the average per capita consumption is about 100 litres in the North and 20 litres in the South, because of the lower or higher substitution effect by wine. The expectations are that beer consumption per capita in Eastern Europe will rise with GDP growth and that the countries of Eastern Europe are certainly large potential beer markets.

Table 45: Annual per capita beer consumption (in litres) in Western Europe – estimates

	per capita consumption (estimates interviewee)
Germany	130
Belgium	100
The Netherlands	80
UK	70
France	40
Italy	20

Source: interviews

Beside per capita consumption, demographics play a role. Consumption of spirits and strong vodka's decreased, because it is linked with the image of the older population. It is compensated by a rise in the more accessible beer consumption that is associated with the younger population that wishes to emancipate itself from the older generation.

In the Czech Republic, Poland and Russia, beer consumption is already high. So, there are growth opportunities in market volume in the other Eastern European countries. The initial aim is to sell the local core lager. Afterwards, there is possible growth in value, both by offering higher quality and by increasing the price levels. Later on, higher-priced premium beers could be sold as well, once the Central and Eastern European breweries are adapted to it.

Prices are lower than in Western Europe and, hence, profits in Eastern Europe were still small. The profit margin in the West was in 2000 still ten times larger than in Eastern Europe and there was no scope to increase prices. Interbrew was rather interested to acquire market share than to reap high profits already.

VI.3.4.2.An attempt to pre-empt entry

Since competitive pressure is high in the industry and competition is getting more global, it was important for Interbrew to invest in Eastern Europe to pre-empt entry by competitors. Interbrew had missed opportunities in the Polish market. In Russia, where two investors had already built up substantial market share, Interbrew formed an alliance with the second international player, rather than entering as a small player.

VI.3.4.3. Acquisition of local brands

The Eastern European consumers had a preference for the local taste of their local brands. The strength of the regional players lies in their brands. To screen the strength of the local brands, three factors are important: brand awareness, the like/dislike attitude and the distribution of the brand.

To grow, it is necessary to acquire good local brands. Besides, there is the possibility to create new brands, but launching new brands would require enormous marketing efforts that were certainly not justified in the beginning in Eastern Europe.

VI.3.4.4. Saturation in the home markets

Some major beer markets in Europe (more than in the US) declined or stagnated. So, market growth is not to be expected from Western Europe. Competition is fierce because of high concentration in most markets. In Canada, where Labatt is based, the first two competitors have 94 percent of the market. In Belgium, for instance, the two first competitors, Interbrew and Alken-Maes

(group BSN) have a market share of 70 to 75 percent. Germany[109] was an exception with a very fragmented beer market. These market shares can hardly be increased anymore. Market growth is expected to come from Eastern Europe (and Latin America). Eastern Europe in particular is chosen because of its geographical and cultural proximity to Western Europe. Consumption habits might become quite similar to those in Western Europe.

VI.3.5. Identification of the beer industry in Eastern Europe

Overall decline in consumption in early transition years.
High levels of excise tax, together with depressed economic conditions and the ensuing reduction in purchasing power, led to a decrease in beer consumption in the early transition years. Total beer consumption in Central and Eastern Europe declined by 20% from 1990 to 1997. Exceptions to this general trend were Polish and Croatian consumption that increased respectively by 64 and 55 per cent between 1990 and 1997 (Table 44) and consumption levels in the Czech and Slovak Republics that remained stable. In Poland, the consumption of alcohol moved away from vodka towards beer.

Competition.
Fragmentation of the Eastern European beer industry. Breweries were regional under the system of central planning. Most Eastern European brewers had a virtual monopoly in their local region and limited sales elsewhere. This history of fragmentation has left a legacy of relatively low industry consolidation, contrary to what is observed in Western Europe. The fragmented structure of the industry enabled foreign investors to accumulate substantial market shares in the region by acquisitions. In some countries, some local brewers had grown and become national market leaders. These national market leaders were the first acquisition candidates.

Investment size.
Capacity of production plants in Eastern Europe is much smaller than in Western Europe. A plant in Eastern Europe produced on average 500,000 – 1 million hectolitres per year. This was the standardised size of a plant in the days of the planned economy. Compared to that, a plant in the West, such as the Belgian plants in Louvain or Jupilles that produce core lager beer, have a production[110] of up to 8 times more, up to 4 million hectolitres per year.

Prices.
Compared to Western European markets, consumer prices of beer in Central and Eastern Europe are low. Compared to the local price of soft drinks, however, international beers are relatively expensive and this has contributed to the decline in beer consumption in some countries (with the exception of Poland and the Czech Republic). The low international beer prices are reflected in low levels of imports from Western Europe.

Local beer prices are highly determined by value added tax and excise taxes. Hungary and Poland have taxes that are even higher than in the Nordic countries and Ireland in Western Europe. This contributed to a decline of all sorts of alcohol consumption in Hungary. In Poland, beer benefited from even higher taxes on other forms of alcohol such as vodka and spirits and consumption of beer

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[109] Later than the time period of the case, consolidation took place in the German beer market as Interbrew bought Beck and Spaten, making it the number one in Germany by 2004, as far as sales are concerned.

[110] Consumption per capita and population density is high in Belgium, the Netherlands and parts of Germany, the market where the production of the Belgian plants is sold.

increased. The other countries have lower tax rates than the average for the European Union.

Price differentiation is even possible within countries and depends on local income and logistics. Compared to the rest of Russia, Moscow, St. Petersburg and Western Siberia are richer.

The price of the product is too low compared to the transportation costs involved. Therefore, the risk of parallel import is low. There is marginal parallel import from the Czech Republic with Czech brands. In general, price setting can be lower than in the West without a risk of parallel import and price differentiation per country is possible.

Beer quality.

Most Eastern European brewers produced non-pasteurised beer resulting in low quality and a very short shelf life. Increasing pasteurisation is a prerequisite to expand distribution range.

Packaging.

Packaging in Central and Eastern Europe was not of a high quality. The use of cans is not generalised. Beer sales from tankers in Russia, for example, in 1997 still represent approximately 25% of the total, although this share is falling as the main brewers invest in new technology and keg sales increases. Bottled beer was gradually introduced and represented more than half of total sales by 1997. Most markets use returnable bottles of a standard shape, no exotic shapes as in Western Europe. Improvements in packaging stimulated volume growth.

Supply.

Raw materials such as barley were mostly delivered locally. There was no trading market securing the barley needs in case of bad harvests. Local suppliers were encouraged and instructed how to improve their product quality.

Distribution.

Contrasting to Western markets, where beer is available in cafés and supermarkets, beer used to be bought in booths in Eastern Europe. Beer is bought for direct consumption. Gradually the retailing sector modernised. It enabled sales to the consumers directly and introduced free decision making by the consumers. This was an important prerequisite to sell beer. Private labels could be introduced. It changed shopping habits from the one hour shopping to the two-week shopping.

VI.3.6. Process of negotiation until the arrival at an investment decision

The process that led to an investment decision was coordinated by: 1. the Industrial Development Strategy and Business Development Department (or mergers & acquisition department), 2. corporate strategic and operational management (mainly marketing, global techniques, human resources, the legal service and finance and administration) and 3. local operational management (operational and country managers).

The merger & acquisitions department took the initiative. It established first contacts and built the case proving that the investment project would generate value added for the company. For fixing the projected figures and priorities, it consulted corporate strategic and operational management and local management. Both are present in the due diligence process investigating the accounts and the legal aspects of the acquisition candidate by a third party, in the valorisation, and the formulation of the business plan. This business plan needed to be accepted by the local operations. If it regarded a second acquisition in a country, it is only a process between corporate strategic and operational management and local operational management. In that case, the mergers and acquisition department is no longer involved. Finally, after consensus between the three parties, the mergers & acquisitions

department presented the business plan to the strategic committee of the Board of Directors.

The structural fit to the organisation evolved. Whereas Eastern Europe and Asia had been one department, first a split proved necessary between the two, and, as Interbrew got more affiliates in the region, that department was split into a division dealing with 'Central Europe' and one responsible for 'Eastern Europe'.

VI.3.6.1. Investment in Russia

The situation of the Russian market before entry looked as follows. In the planned economy, there was one brewery per oblast (district), with a standardised capacity of 500,000 hectolitres-1 million hectolitres. Market size per district was different. The standardised capacity was not calculated on the basis of the minimum efficient scale. There was excess capacity of low quality beer and risk of simultaneous investments. The market was very fragmented with maximum market shares of 5% per company. There were no economies of scope realised because there was not much variety in the beers produced.

Since 1990, Russia had experienced a large contraction in beer production that reflected the overall slump in industrial output rather than falling demand. Capacity was highly under-utilised. Imports failed to fill the gap due to harsh import regulations (and a lack of foreign currency), making only premium-priced quality products profitable. There was a shift in beer imports in favour of those producers that hold firm market positions in Europe. The Czech Republic increased its beer exports to Russia between 1990 and 1996 by 5.5, Austria by 3.2, Ireland by 2.3 and the UK, Germany and France by about 35% each. Five countries – Germany, Denmark, the US, the Netherlands and Finland – accounted for 82% of all beer imports in 1996.

Table 46: Russia – GDP and beer production (1990-1997)

	1990	1995	1996	1997
GDP (%change)	-	-3.5	-6	1.2
Beer market (m hl)	30.5	17.4	15.7	15.7

Unlike the countries of Central Europe, there was no lack of sufficient capital among the local regional brewers in Russia and Ukraine. However, lack of investment resulted in shortages or lower quality. Production was not standardised.

Foreign entrants before Interbrew entered

The first foreign investor was Baltic Beverage Holdings. Baltic Beverage Holdings is a joint venture that was initially[111] for 50% owned by a holding and for 25% owned by Carlsberg. The holding is a joint venture owned by the Scandinavian brewers Hartwall and Pripps-Ringnes (Orkla). Baltic Beverage Holdings had acquired a major share of the three Baltic markets and acquired 3 Russian brewers, one in 1993 and two others in 1996.

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[111] Meanwhile Baltic Beverage Holdings is for 60% owned by Carlsberg and for 40% by the holding-joint venture between Hartwall and Pripps-Ringnes.

Table 47: Russia – Brewery acquisitions before the entry of Interbrew

Year	Company and way of growth	Purchaser	price (US$m)	participation
1993	Acquisition of Baltika	Baltic Beverage Holdings	28.5	majority: 51%
1996	Acquisition of Taopin	Baltic Beverage Holdings	11	majority: 50%
1996	Acquisition of Yaroslavol (Yarpivo)	Baltic Beverage Holdings	10.4	majority: 50%

Source: ING Barings estimates

By the acquisition of the three brewers, Baltic Beverage Holdings acquired 25% of the market. The number 2 player in the market was Sun Brewing that had an estimated market share in Russia of 18% in 1997. Together, Baltic Beverage Holdings, Sun Brewing and other foreign investors had a joint market share of 40% in 1997.

Sun Brewing Ltd. was set up in 1993 as a Jersey-incorporated company, majority owned by Sun Trade (International) Ltd. (STI). STI is part of the Indian Khamka family's Sun Group, established for investing in the Former Soviet Union. Sun Brewing, covering Russia and Ukraine, was a limited liability company consisting of 7 enterprises corresponding to 7 brands, located in major population centres. Sun had 3 successful brands: Klin, Siberian Crown and S. Tolciak.

There was a demand for 'legal' vodka, as the government adopted a tougher approach to unreported vodka production sold on the black market. Beer is generally seen as a complementary product to vodka. Normally, an increase in vodka consumption positively affects beer consumption. Cheap black-market vodka, however, used to be too much of a temptation, adversely affecting sales of beer and wine in the past. More recently, the decrease in demand for cheap vodka should serve to boost beer sales. This switch from vodka towards beer was first noted in Poland, and was subsequently followed in Russia and Ukraine.

Before Interbrew entered Russia, international players had already a substantial market share of the quality beer market with valuable brands. Rather than entering as a number 4, Interbrew investigated how it could co-operate with the no. 2 in the market. The slower reaction of Interbrew is probably attributable to the simultaneous Canadian acquisition in 1995 that was a considerable financial effort.

1.Omsk – Rosar brewery

1997: investigation started
September 1997: presentation of the business plan to the BoD
August 1998: approval of joint venture
January 1999: joint venture acquisition of Rosar (share acquisition + capital increase)

In 1997 the idea was launched of a possible presence in Russia. Two people, Mr. Cumli and Mr. Baptiste, were fully allocated to the investigation of 80 possible acquisition candidates. These were regional firms. There was a need for consolidation in the Russian brewery industry.

The best candidate was a company called Rosar in Western Siberia in the town of Omsk. The company had been privatised, was employee managed and a profitable going concern. It was the leading brewer in Siberia with a 25% regional market share, and it was the fourth brewer in Russia. The aim of Interbrew was to acquire and produce a local brand. The local brand of the Rosar company was called 'Siberian Crown' (Sibirskaya Korona). Brand analysis by Interbrew showed that it was suitable to keep the brand as a regional brand for Siberia, since it was not considered feasible to expand it and make it a nation-wide brand. (There was a short litigation concerning the name of the brand with the Mexican brewer, Corona, because of the resemblance with the name of 'Crown').

Western Siberia was a good market, where prices were relatively high compared to other countries in Eastern Europe. In September 1997 Interbrew's business plan was presented to the Strategic Committee of the Board of Directors. At that time, however, the director was shot. This delayed the negotiations. In August 1998, the mandate was given for the joint venture with Rosar. It would take the form of an acquisition of the shares plus a capital increase. First investment in Rosar was undertaken in January 1999 (16 months after the presentation to the Board) and the joint venture was officially set up. Capacity of the joint venture was 800,000 hectolitres. More than 2,000,000 hectolitres were planned.

The strategy of buying and using the local brand is typical of Interbrew's strategy. The firm Interbrew itself was historically created and has grown by buying up local brands. The group used to buy initially small and later larger brewers and always kept the local brands.

Major competitors such as Carlsberg, Anheuser-Busch, and Heineken produced own Western brands right from the start in Eastern Europe. The business plan of Interbrew was primarily based on the local brand. In a second stage, own brands could be added. Interbrew launched its international flagship brand Stella Artois in 1997 in Hungary, Croatia and Rumania and from 2001 onwards in Russia as well.

2. The joint venture with Sun Brewing Ltd.

March 1999: presentation of the business plan to the Board of Directors
June 1999: strategic joint venture with Sun 60-20-20

Sun Brewing Ltd. was set up in 1993 as a Jersey-incorporated company, majority owned by Sun Trade (International) Ltd. (STI). A limited investment was made to consolidate brewers in Russia. Sun Brewing, covering Russia and Ukraine, was a limited liability company consisting of 7 enterprises, located in major population centres. It had a market share of 16% in Russia. Sun Brewing intended to increase its capital before offering the company for sale. However, during the years 1997-1998, Sun's share price depreciated drastically from 20 $ per share to 2 $ per share. In June 1999, Interbrew signed a joint venture agreement with Sun via capital increase. Interbrew acquired 60 % of the shares. The other 40% were divided among the Khamka family for 20% and minority shareholders for another 20%. Interbrew took advantage of the crisis to buy shares that were depreciated. (The same had happened in September 1998 in Korea). The local company Sun was not able anymore to realise a capital increase with its own means but it remained as a partner. The business plan was presented in March 1999 (includes capital expenditure for 2000 and 2001 already).

Sun's contribution to the venture consisted of its breweries in Russia. Beside cash input, Interbrew's contribution to the venture consisted of its Russian and Ukrainian breweries. The Russian Rosar company (acquired in August 1998) at Omsk became also a part of the joint venture with the Sun Brewing company. The Ukrainian acquisitions Desna (acquired by Interbrew in September 1996), and later Yantar (near Odessa), Krym and Rogan of Interbrew were made a part of the Sun Interbrew joint venture and the share of the partners was diluted. The shares were acquired via capital increase.

3. KLIN – Moscow region

1996: investigations started
March 1999: presentation of the business plan to the Board of Directors
November 1999:joint venture acquisition of Klin brewery – 51 percent of ownership
2000: increase of ownership from 51 to 75 per cent

Klin brewery was located in the Moscow region. It had increased capacity. The investment was considered already in 1996. Klin wanted to increase capital. The business plan was presented in March 1999 and authorisation for capital expenditure was given in November 1999. Interbrew's original participation of 51% was raised to 75%. This increase in ownership is carried out in order to finance the investment plan to increase the Klin brewery's capacity to 2 million hectolitres in 2000. The investment was mainly in packaging, infrastructure and marketing expenses.

The participation in Klin was transferred to the Sun-Interbrew joint venture that resulted in an annual capacity of 9.8 million hectolitres (company annual report 1999).

The first time, the existing capacity of the Klin plant of 1.5 million hectolitres was increased to reach a capacity of 2.1 million hectolitres. The cost of this increase in capacity amounted to 15 $ / hectolitre. Because of enormous market growth, capacity expansion was needed and a second plant was taken in operation. The increase in capacity from 2.1 to 3.1 hectolitres costed more than the first one: 20$/hectoliter.

Strategic context

As a result of the acquisition, Baltic Beverage Holdings has 25% of the Russian market, Sun-Interbrew had 16% and the Moscow breweries had 7%. The position of the local brewers had completely changed. Through acquisitions, the first three foreign investors had a market share of almost 50% of the Russian market. In Ukraine, Sun Interbrew had 40% of the market, the independent Obolon Group 20% and Baltic Beverage Holdings 12%. This is comparable to Western Europe, where the first three investors have about 75 %. Both in Russia and Ukraine Western breweries have built up a very large market share.

The Russian market grew 25 percent from 1999 to 2000. Expectations are above 10 % for the coming years. It was important for Interbrew to secure its market share in Russia. It had formed very accurate expectations about the Russian beer market. After the initial decrease in Russian consumption, with the ensuing devaluation of the shares of the earlier investors, market growth that was expected was realised. So, Interbrew had realised the capital increase under favourable circumstances.

VI.3.6.2. Investment in Bulgaria

> 1994: presentation of the business plan to the Board of Directors
> 1995: capital expenditure, majority acquisition of Kamenitza (January) and Bourgasko Pivo (April)
> early 1995: transfer of management and know-how agreement with Astika
> 1996: capital expenditure, minority share acquisition of Astika
> July 1997: merge of the three companies
> 1999: capital expenditure, acquisition of Pleven

The situation of the Bulgarian market before entry looked as follows. The Bulgarian brewery industry had long established traditions and internationally recognised brands. It was organised on regional lines under the centrally planned system. Thirteen brewing companies spread across the country had a capacity of 55 million hectolitres. The companies had local dominance, but limited national distribution. Zagorka brewery was the market leader followed by Astika and Kamenitza breweries. Heineken/Levenitis and Coca Cola had acquired the Zagorka brewery in 1994. It was the strongest brand with national coverage.

Table 48: Bulgaria – GDP evolution and beer production (1990-1997)

	1990	1995	1996	1997
GDP (annual % change)	-	2.4	-10.9	-7
beer market (m hl)	6	4.3	4.2	3.4

From 1989 until the end of 1993 beer consumption decreased as the purchasing power of the average consumer diminished drastically. In 1993, the production of beer reached its minimum when the Bulgarian brewing industry produced less than 60 per cent of its capacity. In 1994-1995 the market was in recovery. In 1996 there was a second decline in beer consumption, related to the decrease in GDP. Overall, in the Bulgarian market, beer consumption increased, despite a decrease of GDP.

Table 49: Bulgaria – Acquisition before the entry by Interbrew

Year	company and way of growth	Purchaser	price (US$m)	participation
1994	Zagorka acquisition	Heineken/Levenitis	21.6	majority: 80%

Interbrew started exploring the Bulgarian market in 1993. The company at that time started to stress its international features. Central and Eastern Europe was a knowledgeable beer market. Czech brewers did not want to sell at that time. Interbrew had successfully acquired a Hungarian brewer and set up a green-field investment in Rumania, which is a large brewing market (Table 46). During one year, Interbrew invested in building up a network and establishing a good relationship with the Bulgarian Privatisation Agency.

Bulgaria had a set of brands. Interbrew entered the Bulgarian market by the acquisition of three breweries, two from the Privatisation Agency, and one from a Bulgarian private investor, acquiring three brands shortly after one another in the period 1995-1996. Kamenitza (in January 1995) and Bourgasko Pivo (in April 1995) were bought from the Privatisation Agency. Bourgasko Pivo was a smaller brewery of regional importance. Astika (bought in February 1996) was acquired from a private Bulgarian investor. The prices for the acquisitions were 4.9 to 5 million US$. These were minor investments for Interbrew, but reflected the generally poor state of the Bulgarian breweries at acquisition. Because of their smaller share, these acquisitions could be realised simultaneously with the preparations of the Labatt acquisition. Local management co-operated with expatriates. The general manager, the marketing manager and operations manager were expatriates. After the due diligence process investigating the accounts and the legal aspects of the acquisition candidate by a third party and the valorisation, the business plan was formulated. This had to be accepted by the Board and by the anti-monopoly commission.

As soon as shares became available, the minority shareholders were bought out by Interbrew. Local shareholders offer local connections and co-operate for the investment and the local introduction. Later, Interbrew bought out the other shareholders to acquire control.

Initially the Zagorka brand, bought by Heineken in 1994, was the strongest brand. Interbrew's brands, Kamenitza, Bourgasko Pivo and Astika started out with a market share of only 6%. Interbrew started promotion campaigns linked to soccer sponsoring. As a result of that, Zagorka, that used to be the strongest brand, ended up being the weakest brand in the end with a market share of 7%, while Interbrew with its three brands got a market share of 22%.

Interbrew adopted a portfolio approach. This means that the brands were positioned complementary to each other and prices were differentiated. Burgas was positioned as a regional beer.

Kamenitza was positioned as a national brand associated with Jupiler. Both Burgas and Kamenitza tapped into the Bulgarian market of mainly ordinary beers. Complementary to these two brands, Interbrew positioned Astika, an original and special beer, as a special 'deluxe' product or even a premium-deluxe product, which led to an increase in its price. The Astika brand was suited for export to adjacent markets and other export markets that could secure more stability for the investment in the volatile Bulgarian economy. It also illustrates Interbrew's policy of respecting local brands and adding own flagship brands later.

Later Pleven, a regional company in the north of Bulgaria, where Interbrew was not present yet, with the Pleven brand was up for sale. It was certain that the company that could acquire Pleven would be the dominant player in Bulgaria and the other no. 2. In 1999, Interbrew could acquire Pleven and was certain to get the national dominance. Four breweries is a too high number. Interbrew did not want the capacity of these brewers, but a dominant market share via their brands. So, the six plants of the companies were merged.

Interbrew solved the slump in the Bulgarian economy with 4000% inflation by price increases and local sourcing and the results turned quickly positive.

Beer prices are highly differentiated between Eastern European countries. They are determined by excise taxes that can be 100 to 200%, and by taxes on raw materials. This makes every country a trade zone on its own. Taxes on raw materials, barley, are very high to support local agriculture. So, the sealing off of the market is also a value driver.

VI.3.6.3. The resulting scope of involvement of Interbrew in Eastern Europe: Overview of all investments in Eastern Europe by Interbrew

Table 50: Interbrew – investments in Central and Eastern Europe

year	country	company and way of growth	price (US$m)	participation
1991	Hungary	acquisition of Borsodi Sorgyar		majority
1994	Rumania	green-field investment	11.5	majority: 51%
1995	Bulgaria	acquisition of Bourgasko Pivo	5.0	majority: 67%
	Bulgaria	acquisition of Kamenitza	4.9	majority: 70%
	Croatia	acquisition of 1 brewer	11.6	51% to 70 %
	Hungary	acquisition of 1 brewer		majority participation
1996	Bulgaria	acquisition of Astika	5.0	majority participation: 82%
	Ukraine	acquisition of 1 brewer (Desna)	18.0	majority participation: 60%
1997	Montenegro	acquisition of 1 brewer		majority participation
1998	Russia	acquisition of 1 brewer (Rosar)		
1999	Russia	joint venture-acquisition of Sun		joint venture, majority 60% to 97.3% (2005)
		acquisition of Klin		majority: 51%--> 75%
	Rumania	acquisition of 7 breweries of Efes		joint venture: 50/50
	Bulgaria	acquisition of 1 brewer, Pleven		
	Ukraine	acquisition of Krym Brewery*		
	Bosnia, former Yugoslavia	acquisition of Grude		

Source: InBev
* In 2001 Interbrew had to dispose of Krym Brewery as this was ordered by the Ukraine Anti-Monopoly Committee in relation to the acquisition of Rogan Brewery at the end of 2000.

As far as the geographical distribution is concerned, Interbrew prefers to be market leader in four countries rather than to be present in all small countries in Eastern Europe. Since the sector is involved in consumption goods, a critical mass of investment presence is necessary. The investments

are large and there are increasing economies of scale in production, marketing, distribution and sales.

Interbrew did not invest in Poland. It was a missed opportunity for the company. Major competitors took over the most important firms. Neither did it invest in the Czech Republic. Since the acquisition of Bass in 2000, Interbrew became the second largest brewer obtaining a market share of 13% in the Czech Republic. Bass owned 6 breweries in the UK and three in the Czech Republic. The Czech market is, however, less important than the Polish market. The uncommon strategy of a green-field investment in Rumania was mainly due to the availability of two "embryos' of companies set up by two Rumanian brewers.

VI.3.7. *The comparison between preferred and chosen entry mode decisions by Interbrew*

In all initial projects Interbrew answered in the survey that it preferred a joint venture acquisition entry. In all cases, the real entry mode coincided with the preferred entry mode. The model of Chapter V predicts the presence of the following characteristic: high external uncertainty. The evolution of demand was indeed very uncertain. In Russia, for instance, a 25 percent growth in 1999-2000 had not been expected (World Bank, Goldman Sachs) and demand was highly volatile.

Uncertainty was very high and the investment is highly irreversible, which, according to the model, is an argument in favour of joint venture formation. A brewery with expensive processes cannot be resold at its cost, as it cannot be converted to another use. An estimated 10 percent of its investment value can be recovered initially. In countries like Germany with excess capacity it would even cost the dismantling of the facilities.

Green-field investment had never been an option, since there was sufficient capacity and R&D was low. Moreover, speedy market entry was important, since it involved the acquisition of local brands and their market share.

One exception was made with Interbrew's first investment in Rumania. In 1994, two Rumanian companies, in reality 'embryos' of companies, had built the facilities there and were arguing against each other. Interbrew acquired the two companies and undertook some major restructuring. So Interbrew, as a matter of fact, participated in a green-field investment that had already been built. The first time, the plant was extended from a capacity of 1.5 million hl to 2.1 million hl. This increase in capacity costed 15 $ / hl. Meanwhile, a green-field investment has been added. The additional increase of capacity from 2.1 to 3.1 hls. costed more: 20$/hl.

Except for Croatia, Interbrew was never a first mover in the Central and Eastern European countries. In Hungary, it entered simultaneously with South African Breweries and in Ukraine together with Baltic Beverage Holdings.

VI.3.7.1. The ownership decision

Interbrew prefers majority control. The participation might be a 50-50 joint venture, but Interbrew requires governance control.

There is a difference between Central and Eastern Europe in the sense that the need for a local partner was more stringent in Eastern than in Central Europe. In Central Europe, Interbrew chose majority control. There was less need for a local partner. In Bulgaria, for instance, other Western investors (Baltic Beverage Holdings) were already present. In Russia, Interbrew took always majority control, but continued to operate with a local partner. The organised Khamka group advised by management consultants remains an important partner to get access to local contacts. In Korea, for instance, Interbrew has no majority because the need for a local partner to get access to local knowledge is still more important.

There is an evolution in the ownership participation Interbrew took in the beginning and later

on. The evolution goes from majority participations where shareholders are bought out (as in Bulgaria) to joint ventures with majority control and presence of a local partner (as Sun in Russia). The risk of mismanagement with a joint venture is larger. The reason for the shift from majority stakes to joint ventures with management control is related to risk spreading, the involvement of larger investment sums and a change in mentality of the shareholders of Interbrew. First, risk spreading was more necessary in Russia and to get access to local networks, a partner was required. Second, the investment sums were larger, because the consolidation of Russian brewers had already been realised before Interbrew entered. Third, there was a change in mentality of Interbrew's shareholders towards more trust of management in more risky investment projects.

Besides, initial joint ventures are, after a risk assessment, transformed into fully owned subsidiaries. The investments are undertaken in stages. The investment is undertaken together with a financial partner. This partner can be either industrial or an investment fund. Industrial partners have a long-term horizon for the investment. Their investments are industrial. Investment funds, on the contrary, invest venture capital in the company for a period of 3 up to 5 years only. They intend to resell their share after this period. It could, for instance, happen that an investment fund manager holds 30 % of the shares. Interbrew holds 55 percent. Later on, the investment manager sells its shares and Interbrew buys the rest of the shares. In fact, it is only a means of financing for the initial years.

Comparison with the ownership choice of competitors

The ownership policy of Carlsberg is more towards licensing and minority participation in view of increasing participation later to obtain control. Heineken has the same strategy as Interbrew of requiring majority participation. Only if this is impossible, Heineken would also be inclined to start with a minority share. The company took, for instance, a minority share of 15% as in the Brazilian no. 2 brewer Kaiser.

VI.3.7.2. The acquisition versus green-field decision

Interbrew claimed that it aimed at growth of market share (volume) and higher value creation of the market share by adding more qualitative beers. Beside, it wanted regional dominance by acquiring existing companies with regional dominance. Therefore, acquisitions are generally the rule.

A green-field investment is generally too expensive. Beer must be sold at 20 to 25 $ per hectolitre. When the investment in a green-field factory is taken into account, the price would need to be 50$/hectolitre. Besides, there is a lack of sufficient human resources (specialists in finance, contractors, etc.) locally to justify a green-field investment. The major drawback of a green-field is that it is too slow. A green-field investment takes too long, approximately 2 years to build everything up from scratch. In the Rumanian example, it took two years to create a beer brand and to let the company function properly.

In theory green-field investment in Eastern Europe is still possible, because there is no excess capacity. In Western Europe, on the contrary, there is excess capacity, although some companies still set up green-field investments (in casu Grolsch). This is irrational, according to the Interbrew logic. In Germany alone, excess capacity amounts to 30 % of the volume or is equal to 20-30 million hectolitres. This could be exported to Eastern Europe, but the price would be too low.

Comparison with the establishment mode choice by competitors

Most competitors do acquisitions as well. Efes, a Turkish- Rumanian brewer, did a green-field investment in Russia. It costed 100$ per hectolitre and net sales were only 30-50$/ hectolitre. It was

loss-making.

VI.3.8. Conclusions of the Interbrew case

The brewery industry is a mature industry, with a mass consumption good output. Local production is necessary because of high transport costs and import duties.

The first objective for entry into Eastern Europe was to gain market share in the short run, since home markets were saturated. Market share can be acquired via access to local brands. In the longer run, higher value creation is aimed at by adding more qualitative beers. Eastern European consumption was expected to boom. As a consequence of that, speed of market entry was very important, much more important than assuring the ideal production facilities. The localisation is determined by the availability of a local brand.

Consequently, the preferred and realised entry mode is a joint venture acquisition investment. The need to operate with a local partner was more stringent in Eastern than in Central Europe in order to get access to local knowledge. Gradually, more joint ventures are established because of risk spreading, involvement of larger investment sums and a change in mentality of the shareholders of Interbrew. Interbrew took majority stakes to guarantee control.

Acquisition is not only preferred because of speedier entry, it also costs less than a green-field investment. The acquisition enables a company like Interbrew to build its entry strategy on a local brand.

VI. 4.PROCTER & GAMBLE - INVESTMENT ENTRY MODE IN EASTERN EUROPE

VI.4.0. Introduction

Procter & Gamble is the major player in consumer goods, mainly laundry and cleaning, paper and personal care. P&G has a tradition of growth through acquisitions and joint ventures. It entered Eastern Europe and considered it as a mini common market and referred explicitly to its entry strategy into Western Europe in the 1950s and 1960s.

The case deals with two investment projects: 1) the acquisition of the Rakona company in the Czech Republic in the detergent business, which is in line with P&G's earlier entry strategy and 2) a green-field investment in Poland in the disposable diapers business, which deviates from its traditional strategy, the main reason being that diapers did not exist in Eastern Europe before.

VI.4.1. Primary and secondary sources and interviews

For the case study interviews were conducted with Mr. Delvaux, at the time country manager Poland and former Vice President and General Manager of P&G Belgium. Primary sources were limited due to confidentiality reasons.

VI.4.2. Identification of the company and initial involvement in Eastern Europe

Established in 1837 in Cincinnati, Ohio, as a partnership between James Gamble, an Irish soap maker, and William Procter, a British candle maker, Procter & Gamble had by the 1980s become a manufacturer of 300 brands within 39 categories. These products were organised into four major product groups: 1) consumer products in laundry and cleaning, 2) paper and chemical products, (3) personal beauty care and (4) food and beverage products.

In 22 out of the 39 product categories, P&G ranked first in terms of market share in 1990, up from 17 in 1985, and in the other categories, P&G ranked a close second to third.

The 1980s had been characterised by an expansion of international sales. The expansion of international sales is a phenomenon that started only recently. In the 1980s, sales outside the U.S. home-base represented only 30 percent of P&G's sales. This percentage increased up to 40 percent in 1990 and up to 49 percent in 1992.

Table 51: Net sales by geographic area (millions of US dollars)

	1983	1984	1985	1986	1987	1988	1989	1990
United States	9,074	9,554	10,243	11,210	11,805	12,423	13,312	14,962
international	3,685	3,737	3,625	4,490	5,524	7,294	8,529	9,618
Total	12,452	12,946	13,552	15,439	17,000	19,336	21,398	24,081

Source: P&G annual reports

Table 52: Net sales by product groups (millions of US dollars)

	1983	1984	1985	1986	1987	1988	1989	1990
laundry and cleaning	4,756	4,715	4,884	5,348	5,784	6,668	7,138	7,942
pulp and chemical products	1,079	1,309	1,237	1,161	1,186	1,532	1,778	1,666
personal care	4,780	4,930	5,107	6,451	7,512	8,676	10,032	11,767
food & beverage	2,249	2,461	2,815	2,923	2,976	2,963	3,029	3,318
total	12,452	12,946	13,552	15,439	17,000	19,336	21,398	24,081

Source: P&G annual reports

Table 53: Earnings before taxes by product groups (millions of US dollars)

	1983	1984	1985	1986	1987	1988	1989	1990
laundry and cleaning	725	740	691	667	510	699	754	781
pulp and chemical products	29	96	104	74	148	248	362	307
personal care	694	689	332	625	498	888	1,031	1,314
food & beverage	117	-91	-110	-64	-282	32	-14	304
total	1,565	1,434	1,017	1,302	874	1,867	2,133	2,706

*Source: P&G annual reports*

Table 54: Main figures on Procter & Gamble – net earnings, net sales, employees, R&D and advertising expenses

	unit	1991	1992	1993	1994	1995	1996	1997
net earnings	billion USD	1.8	1.9	2	2.2	2.6	3.0	
earnings before income taxes	billion USD				3.3	4.0	4.7	5.2
net sales	million USD	27.0	29.4	30.5	30.4	33.5	35.3	35.8
employees		94,000	106,000	103,500	96,500	99,200	103,000	
R&D expenses	million USD	768	861	868	964	1,148	1,221	1,282
R&D sales ratio		2.8%	2.9%	2.8%	3.2%	3.4%	3.5%	3.6%
advertising expenses	million USD	2,511	2,693	2,973	2,996	3,284	3,254	3,468
advertising sales ratio		9.3%	9.2%	9.7%	9.9%	9.8%	9.2%	9.7%

Source: P&G annual reports

Figure 19: P&G's net sales by product category (1990)
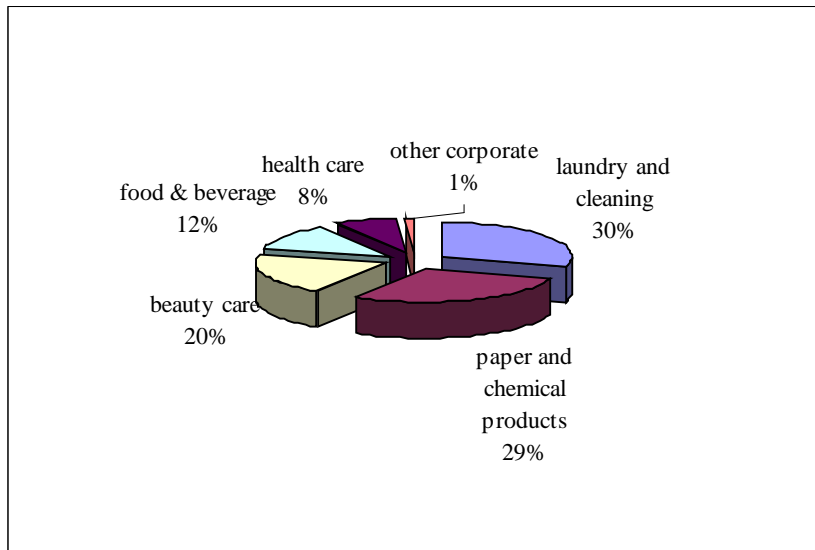
The company capitalises on brands. An overview of the most important brands worldwide is given below.

1. Laundry and cleaning: include detergents, hard surface cleaners and fabric conditioners; representative brands include Ariel, Tide, Spic and Span, Cascade, Dan, Mr. Proper /Clean, Downy

2. Pulp and chemical products: approximately one-third of these products is sold to other product groups

3. Personal care includes personal cleansing products, deodorants, hair care products, skin care products, cosmetics, oral care products, paper tissue products, disposable diapers, digestive health products, cough and cold remedies, and other pharmaceuticals. Representative brands include Always, Bain de Soleil, Chloraseptic, Clearasil, Cover Girl, Crest, Head & Shoulders, Pantene, Vidal Sassoon, Secret, Vicks, Safeguard, Oil of Olay, Giorgio Beverly Hills

4. Food & beverage includes coffee, peanut butter, juice, snacks, shortening and oil, baking mixes and commercial services. Representative brands in this business segment include Folgers, Jif, Sunny Delight, Pringle's, Crisco, Duncan Hines.

VI.4.3. Identification of the industry in Eastern Europe

The main characteristic of the industry in Eastern Europe before entry was the low quality of the products produced. Products were typically of low quality and there was no brand loyalty among clients since there were no differences in the image the clients had about the products. Product sales depended on mere availability. There was no research and development because of the lack of competition. We discuss the nature of the quality gap for the main business segments.

Laundry and cleaning. For laundry and cleaning, there is a general tendency towards more concentrated and more liquid washing products. Moreover, packages become gradually larger, increasing cash outlay, but having the advantage of less frequent purchases. Compared to the West, the Eastern European producers produced poor quality low-tech products in small packages of 600 grams with a small cash outlay. These products were fluffy, and sold as powder, not as liquids. Products produced a lot of sut. These products were very labour intensive, because hours of pre-soaking were required. Automatic washing machine penetration was very low in Eastern Europe. Western products were, to a limited extent, known and sold in exclusive state controlled shops. Detergents such as Ariel and Tide, produced by P&G, Persil, produced by Henkel, and Omo,

produced by Unilever, were known. Washing softeners and household cleansing products were virtually absent. In Poland, there were six out-dated plants. In order to be able to create demand, advertising was necessary to boost washing machine penetration first. Habits needed to be changed to get consumers acquainted to liquid products with sut compressors in larger packages.

Paper. A lower quality variation of feminine protection products did exist in Eastern Europe, but disposable diapers were not available.

Personal care. Production was very fragmented among regional producers producing low quality products.

VI.4.4. Investment motivation in Eastern Europe for Procter & Gamble N.V.

When considering its Eastern European strategy, P&G reflected back upon its direct investment strategy in Western Europe in the 1950s and 1960s. The entry into the European continent from 1954 onwards (after entry into the U.K. in 1930) is an illustration of the strategy of P&G to focus on long-term development of the business and the organisation. In the 1950s and 1960s, P&G established businesses in all major European markets such as France, Germany and Italy. Besides, it started export operations in Geneva to pioneer the start-up of new businesses in the smaller countries like Ireland, Greece, Austria and Switzerland. By the early 1970s it had a base in 8 countries and sales of nearly $500 million. The explosive growth of sales came between 1972 and 1992, when P&G's sales in Europe multiplied 17-fold, to over $8 billion. Much earlier than 1992 P&G realised that the success of the European business would be dependent on its ability to operate on a pan-European basis. The three principles on which it declares to have built its European entry strategy are tailoring products to the new market, treating the region as one market[112] and combining traditional P&G 'world brands' and local brands with strategic acquisitions[113] and joint ventures[114]. The major motivation for direct investment in the case of (wholly owned) acquisitions is the acquisition of local brands that are tailored to the market. In the case of joint ventures (joint venture green-fields) the motivation is the local production of 'world brands' rather than the acquisition of local brands.

Two key elements of Procter & Gamble's entry strategy in Eastern Europe were speed of entry and critical mass. It is different from the entry of P&G into Western Europe after the war, where it entered one country at a time, and one product category at a time. There was no time for such an approach, since competition in consumer industry in Eastern Europe is very aggressive. P&G knew that if it did not move fast, its competitors would be earlier in the market. So, the strategy was to enter multiple markets and multiple categories simultaneously, starting with the lead brands and lead markets followed by parallel roll-outs at high speed. This was both different from P&G's entry strategy in earlier markets and from the way competitors approached Eastern Europe.

VI.4.4.1. Large market potential and consumption gap

Eastern Europe, including the USSR, was a potential market of over 430 million people and the desire to receive better quality and abundant Western products was high. Packaged consumer products were known, since they had been occasionally available. As far as quality was concerned, Eastern Europeans did not want second-rate products as for developing countries. The heritage of communism had created a very large middle class. Radio and TV infrastructures were in place to

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[112] For its entry into Europe P&G treated Europe as one market from the 1970s on.

[113] Key acquisitions in Europe included Richardson-Vicks and Blendax health and beauty care products in the mid-1980s, and Max Factor and Betrix cosmetics and fragrances in the late 1980s.

[114] Joint ventures involved Eczacibasi in Turkey, Agrolimen in Spain and Portugal.

reach these markets. With regard to availability, many packaged consumer products had been in constant short supply.

VI.4.4.2. Low cost production for the local market

Manufacturing cost was lower in Eastern Europe. Wage rates were low by Western standards, which made investment in labour-intensive business attractive. P&G estimated that labour costs were 1/5 to 1/10 of Western European labour costs. Top-level people in Poland, for instance, were paid 12,000 Belgian francs a month in 1993. Land and equipment were undervalued.

Because disposable income was still low in Eastern Europe, prices need to be affordable. The products for the Eastern European market are not the deluxe and medium, but the cheaper range. Therefore, ultra-efficient operation was needed to be able to produce for the local market. The Rakona plant in the Czech Republic, for instance, is one of the lowest-cost producers of all P&G plants in the world. In a later stage, product supply of equal-quality products to export to Western Europe at a lower cost price was envisaged.

VI.4.4.3. Attempt to be a first mover in Eastern Europe

A principle aim of P&G's strategy[115] for Eastern Europe was to create high volume early on in order to have a first mover advantage. Although the company states it aims to be first mover, competitors had entered Eastern Europe already or were about doing so at the time of P&G's decision. P&G had the competitive disadvantage that it needed to build up its operations from scratch and that it had no export experience.

Colgate-Palmolive, mainly expanding in the oral care business, had exported many products into Eastern Europe for some years. In 1990, it planned operations in Hungary, the USSR, and Poland.

Unilever intended to buy back its former offshoots seized by the communists after the Second World War or establish joint ventures in Poland and Hungary in the detergents and edible oils product branch. Gillette Co.[116] had been exporting to Eastern Europe for over 10 years and had established a joint venture in the USSR where its trademarks had long been registered to protect them from piracy. Henkel had entered into four joint ventures to produce laundry detergents: one in the USSR, one in East Germany and two in former Yugoslavia at a cost of DM 40 million. It planned to modernise the joint venture sites and used local brands before launching its own in 1991. In Hungary and Poland, Henkel operated in chemical-related products. Kao had entered Europe via the purchase of a German hair company, Goldwell. It was also involved in the modernisation of laundry detergent plants in the USSR.

VI.4.4.4. Existing markets are saturated

The consumer packaged goods industry was getting mature and more competitive. Sales growth in the industry slowed down. The number of competing brands in various niches increased. Competition had mainly increased because of the change in market power away from the producers in favour of the retail industry. Retailers exploited rivalries between producers to extract concessions and dictate terms of trade. Whereas in 1960 only 15 percent of P&G's grocery business had been conducted with the retail chains, this share had increased to over 80 per cent by the 1980s.

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[115] Speech delivered by Mr. Arzt, February 18th, 1993, at a joint meeting of the Commercial and Commonwealth Clubs in Cincinnati and other audiences.

[116] In 2005, P&G acquired Gillette and activities are combined with those of P&G now.

The share of P&G's activities in the international markets raised and these markets were more competitive than the U.S. market.

Table 55: Sales by geographic area (millions of dollar)

	population (million)	1993	1994	%change	1995	% change
Europe, Middle East and Africa	1900	10,336	9,739	-5.8	11,019	13.1
Asia	3000	2,775	3,134	12.9	3,619	15.5
North America	300	15,100	15,147	0.3	16,213	7.0
Latin America	500	1,990	2,256	13.4	2,184	-3.2

The figures until 1992 are not comparable, since the geographic segments were until then defined as: United States as a first segment, Europe as a second segment and Canada, Asia, Latin America and other as a third segment.
Growth expectations in Eastern Europe were higher than in traditional markets.

VI.4.5. Longitudinal study of the arrival at a first investment decision

In December 1990, John Pepper, President of the Procter and Gamble Company (P&G), discussed the successes of the company's globalisation efforts with Herbert Schmitz, a senior executive with P&G's European operations. Earlier in 1988, Mr Wolfgang Berndt, an Austrian with Eastern European roots, then Group Vice President of P&G for Canada and Latin America, had predicted that business opportunities would emerge within the countries of the Soviet block and had led an investigation, which resulted in the establishment of an export business into Eastern Germany and the USSR.

Mr. Pepper, at the headquarters at Cincinatti wanted to be personally involved in the development of activities in Eastern Europe. After having completed a tour in Eastern Europe together with Mr Berndt, just-retired Chairman John Smale, and several of P&G's European senior executives, he had concluded that P&G had to make a push into Eastern Europe and wanted Mr. Schmitz, who was very entrepreneurial, to develop an overall strategy for Eastern Europe that would move the company into a leading position. The aim was to achieve a break-even in the third year of operations and be in a positive cumulated cash flow by 1998. Eastern Europe was not automatically considered a part of the responsibility of Western Europe. From the headquarters, operational leaders were immediately appointed and local management was hired.

P&G's strategy was to give priority to Poland, Hungary and (at the time) Czechoslovakia, three lead countries, in parallel and to enter in three priority product categories – 1) laundry and cleaning, 2) pulp and chemical products, 3) personal care –simultaneously. The aim was to build a broad base of business in terms of countries and product categories in order to achieve a high volume early on. We describe the evolution of the investment in the Czech Republic and Poland.

VI.4.5.1. P&G's investment in the Czech Republic - the acquisition of Rakona

1990: explorative visits of a dozen of detergent firms
June 1991: start of negotiations for the acquisition of Rakona
Fall 1991: wholly owned acquisition of Rakona

In the Czech Republic, P&G first imported its products. After a visit of dozens of detergent plants in 1991, a plant of Rakona, 40 miles from Prague, was considered the best facility in Eastern Europe producing laundry and dishwashing detergents, as far as its quality and geographical position was concerned. It was the largest single manufacturing unit of laundry and dishwashing detergents in the former Czechoslovakia. Despite the large size of the operation, the state had spent very little to

modernise equipment and, as a result, product quality was very poor. It had under-utilised excess capacity.

Negotiations were started for an acquisition. Mid-June 1991, a team of P&G engineers was already sent over to work with the local employees to increase efficiency. The objective was to do a test product run to see whether the plant could produce Ariel, the European flagship laundry detergent, at a quality that was equal to the German-made product, and do it in a few months. After six weeks, and six weeks ahead of schedule, in August 1991, the German-made Ariel and the Czech product made at the Rakona plant were of identical quality and performance, illustrating the competence of the Czech employees. P&G had not made any major upgrades of the equipment or made any other physical changes to the plant, since it did not even own the plant yet. Both P&G and Unilever launched a bid on Rakona. In the Fall of 1991, negotiations resulted in the acquisition of the Rakona plant for $20 million and a $24 million investment. P&G was the first foreign company to acquire a major business in the Czech Republic under the new Privatisation Law.

The Rakona plant became one of the lowest-cost producers of all P&G plants in the world. It produces P&G products such as laundry products 'Ariel', 'Tide', 'Dash', cleaning products such as 'Mr. Proper', dishwashing liquids and shampoos.

Table 56: Foreign investors and their detergent plants in Eastern Europe

	Location of the plant
Procter & Gamble	Czech Republic
Henkel	Hungary
	Slovak Republic
	Poland (Silesia)
Unilever	Hungary
	Poland (Bydgoscsz)
Benckiser	Poland (Warsaw)
	Czech Republic

Whereas P&G acquired only one detergent plant in Eastern Europe, Rakona in the Czech Republic, competitors as Henkel, Unilever and Benckiser acquired production units in the same product categories in different countries.

VI.4.5.2.P&G's green-field investment decision process in Poland

mid-1989: distribution agreement with OMC Poll
End 1990: 50-50 joint venture with OMC Poll
1993: green-field diapers factory at Targowek (Warsaw)

Unlike its main competitors Henkel and Unilever, Procter & Gamble had not been active in Eastern Europe before 1989.

1. launch and exploration: distribution agreement

Out of pure opportunistic reasons, a distribution agreement had been signed mid-1989 with a local group, OMC Poll, in Poland. The company had also operations in Russia. At Procter & Gamble, one person, at the end of his career, had been allocated to follow up this agreement.

In February 1990 Mr. John Pepper, responsible for Procter & Gamble International at P&G's

Cincinatti headquarters, paid an explorative visit to Eastern Europe, together with Mr. Wolfgang Berndt, at that time responsible for Canada and Latin America. Mr Berndt was born in the region and had started his career with P&G Austria. Together, they visited Poland, Hungary, the Czech Republic and Russia. The CEO for Western Europe was not fundamentally interested in the region. Compared to other companies P&G had no experience in Eastern Europe. As a result of this visit, there was a consensus to invest in Eastern Europe.

In May 1990, four country managers were appointed in Hungary, the Czech Republic, Poland and Russia. The order of priority was the following: the first region considered was Hungary, followed by the Czech Republic and Poland. Investment in Russia was considered premature.

Mr. Delvaux became the country manager for Poland. The distribution agreement was continued. The agreement involved the sale of Western products with Western packaging at Western European prices. There were two distribution channels, the state controlled shops of the Pewex distribution network and a newly established P&G representation office.

Pewex (Slasz Baltona) was a system of 80 state controlled shops. Payment was effected in dollars, later in Deutschmarks. Many of the owners of these Pewex shops had relatives abroad.

Distribution agreements were signed with the Pewex shops for a period of 3 years. Problems were raised about registration. A list of the product ingredients needed to be provided to sell these products nation-wide in Poland. It was necessary to prove that these products were sold in Germany. They were purchased in Germany and sold in Poland under the name of the distributor. Import duties on the P&G products were so high that the products were almost sold at Western prices.

The aim of P&G was to create brand awareness through the distribution via the Pewex shops. P&G sold products from its different divisions: detergents (product name Ariel), shampoos (product name wash & go), paper (pampers) and hygienic products (Always). One product was sold extremely well, the after-shave 'Old Spice'.

Beside distribution through the Pewex shops, a <u>representation office</u> was created that depended on the P&G Swiss wholly owned subsidiary AG. A risk barrier needed to be created between P&G Inc. and the Polish representation office to avoid a direct link. The Swiss wholly owned subsidiary co-operated with the P&G Geneva based export subsidiary. Those representation offices are more flexible in collaborating with the Polish ministry, for instance, providing the necessary information if required.

P&G sales in Eastern Europe through the two distribution channels boomed. This lead to a next stage:

2. P&G Poll S.P.O.O. = a 50/50 joint venture with the distributor OMC Poll

The earlier distribution agreement was revised. A joint venture agreement was created with the distributor OMC Poll by the end of 1990. Procter's contribution consisted only of capital. Nothing was produced on spot, but shampoos, conditioners and disposable diapers were sold. The 50/50 distribution of ownership was a requirement by the distributor. It involved some risk, because the name of P&G was used. The joint venture agreement foresaw an option for a buy-out of the distributor by P&G.

Instead of importing at the sales price, the joint venture P&G Poll S.P.O.O. made a proposal to import from Germany at a price equal to the cost price. Import duties in Poland were levied on the total price. Profits were declared in Germany. This proposal was rejected by P&G because the profit margin needed to be revealed to the distributor.

Meanwhile, the fully owned subsidiary P&G Polska was created. It imported from Germany at production cost. Import duties were on production cost only and P&G Polska declares the profit margin.

The wholly owned subsidiary P&G Polska sold to the joint venture P&G Poll. As far as distribution is concerned, there was a move towards the regional distribution channels, the 'Spolems' that were expected to boom. There were hundreds of 'Spolems'. This enabled a more extended distribution network than via the 80 Pewex shops.

Whereas the share of the Pewex shops in distribution declined, the joint venture P&G Poll sold to the 'Spolem' that were being privatised, and to de novo private shops that were created. With this strategy, P&G was the first company that left Pewex. These Pewex shops were always paid on time, but they did little effort.

Parallel, P&G set up a test market in Warsaw to push sales. In mid 1991 P&G started an advertising campaign in Poland for three product categories simultaneously. It was the first company to do so in Poland. This relatively cheap advertising was for the detergent Ariel, for pampers and for 'head and shoulders' shampoo. Sales in Warsaw boomed. This was a sign for Mr. Wolfgang Berndt to launch the product nation-wide. Distribution needed to be organised. P&G Poll sold through a sub-distributor. It bought products until it had a full lorry. P&G Poll had to pay in advance and to deliver. The sub-distributor received vans from P&G for delivery. The network was arranged so that there were 2 distributors per vojvodship. By the end of 1991, P&G had developed a very good distribution network.

By the end of 1991, a first contract worth 2 million US$ for a period of 2 years was established with the national television for advertising. In the first year, already 5 million US$ were foreseen.

Sales were pushed and boomed thanks to a combination of three strategies: the distribution contract, the development of Western style advertising and the distribution nation-wide of samples of pampers, Ariel, Allways and Mr. Proper. All print on the packaging was in Polish.

Mid 1992, all products were still imported. This situation became untenable. There were two reasons for that. First, the sales by Procter in Poland represented 7% of all foreign exchange in Poland. Second, there was pressure felt to increase import duties. Local brands were competing with Procter products. Because duties on raw materials decreased, the price gap between P&G products and the lower quality local brands increased. So, the Polish P&G wholly owned subsidiary asked the permission for investment in local production. At that time, headquarters rejected this idea because heavy investments were made at that time in the company. P&G had just acquired a detergents company in the Czech Republic, Rakona (VI.4.5.1.). In Hungary two other acquisitions were undertaken, one in the paper business, disposable diapers (pampers) and another one that produced personal care products such as tooth paste and women-hygienic products.

P&G decided that the Eastern European markets had to function as a mini common market. Eastern European subsidiaries had to produce for all Eastern European countries together. This strategy adopted by P&G is different from its competitors. The major competitors, Henkel and Unilever, had acquired companies in the same business in each country (Table 58). Henkel bought detergent companies in the Slovak Republic, in Poland (Silesia) and in Hungary.

In Poland, P&G had to share the market with Henkel with a company in Silesia, with Unilever with a company in Bydgoscsz, and with Benckiser with a company in Warsaw beside the local disposable diapers producer Dalène and local companies producing women hygienic products.

P&G had already investments in the Czech Republic (detergents) and Hungary (paper and personal care), and it decided to produce disposable diapers locally in Poland. Until then, these had been imported from Western Europe. Two to three companies in the paper business were considered for acquisition, in Poland and in Hungary. One Polish firm did not want to be bought out.

The local P&G Poll general managers, Mr. Jacek Dzerwa had lobbied to get detergents and disposable diapers in the Visegrad Common Market Agreement on duty-free import. The other products in the agreement were mostly raw materials. Diapers could be produced in Poland and exported to the Czech Republic, and detergents made in the Czech Republic could be exported to

Poland on a friendly-duty basis. In this way, P&G had created a mini common market.

3. Green-field investment in Warsaw – disposable diapers factory P&G Operations Polska

A study had been made to find out the ideal location, as a trade-off between production and transport costs, and it turned out to be the South of Poland. Because a considerable number of expatriates were needed, Targowek near Warsaw was preferred, however, to enable better education and housing facilities for the accompanying families. A building that was not finished was bought. The surface on which the building stood was property of a state holding and privatised. Disposable diapers were a product that did not exist before in Eastern Europe. Other products were imported from the factories in the Czech Republic and sold in the Polish market. The factory could sell in Poland, the Czech Republic, Hungary, the Balkan, and Russia. Probably, it could in a later stage also sell in Germany. The business plan was approved in 1992. At the beginning of 1993 a green-field investment was set up for a disposable diapers factory near Warsaw (in Targowek). The committed investment was equal to 100 million US$. After the Fiat investment in Krakow it was the largest investment in Poland. The company was called P&G Operations Polska. The advantage of the green-field investment was that P&G could itself determine the scale of the operations. In the case of acquisitions the scale was pre-determined and restructuring needed. The representation offices in the different countries had no function anymore and disappeared. The remaining shares of P&G Poll, the joint venture, were bought.

Beside diapers, bleach and shampoos (Pantène, Wash and Go) were also produced from 1995 on. The cost of goods for beauty care products is lower. The marketing component in the price of these products is very high. The extra cost from duties is smaller than for detergents and pampers, which made local production less urgent. Prices of beauty and health care products were two to three times higher than local products, because of the quality gap.

VI.4.5.3. The resulting scope of initial investment of P&G in Eastern Europe

In laundry and cleaning, two acquisitions were made, Rakona in the Czech Republic and a company in Rumania and contract manufacturing was organised in Russia. For pulp/ personal care (paper), a green-field diapers factory was set up in Poland and an acquisition of a feminine protection products company was made in Hungary. For beauty care, the need for local production was lower, since the saving opportunities on the cost of goods are smaller. The green-field site in Poland was allotted to beauty care products later on.

Table 57: Overview of P&G's initial investments in Central and Eastern Europe

year	country	company and way of growth	business	participation
1991	Hungary	joint venture acquisition (Hyginett)	pulp and personal care: paper tissue: feminine protection products	100%
1991	Czech Republic	acquisition (Rakona)	laundry and cleaning: detergents	100%
1993	Poland	green-field P&G operations Polska (Targowek)	pulp and personal care: diapers, later on also beauty care	100%
1995	Rumania	acquisition	laundry and cleaning : detergents	100%
1997	Russia	acquisition of detergents plant (Novomoskovsk)	laundry and cleaning: detergents	19% --> 51%

VI.4.6. The comparison between preferred and chosen entry mode decisions by P&G

P&G preferred wholly owned acquisitions. The model of Chapter V based on all investment projects predicts that the P&G investment project would then have the following characteristics: high advertising, high global concentration, low international and operational experience and a local for global strategic posture. The acquisition of Rakona in the Czech Republic is in line with the preferred entry mode. In Poland, a green-field investment was undertaken.

VI.4.6.1. The ownership decision

The policy of P&G is to take majority stakes. This is the general policy also of the major competitors Henkel and Unilever. The 'local for global' strategic aim was certainly not intended in the short run. In the longer term production supply for the Balkan and Russia was projected.

VI.4.6.2. The acquisition versus green-field decision

P&G usually operates through acquisitions because it wants to acquire brands and, hence, market share. Brands such as 'Tampax' and 'Cover Girl' are results of acquisitions. Acquisitions are quicker. With a green-field investment there is a lag of three to four years before products are on the market. In the detergents segment, P&G acquired with Rakona a 60 % market share. The detergent market was the only market in which one could acquire market share. In disposable diapers, there was no capacity at all and in beauty care, shampoo production was very fragmented.

In the Polish paper business case, once it was decided to look for capacity for disposable diapers, it was clear that it needed to be a green-field investment, since this product did not exist in Eastern Europe before. There were no real acquisition candidates. The advantage was that P&G could determine the scale and that no restructuring was required. A green-field investment is quite exceptional for P&G. Generally a market is served either by imports or by acquiring a local firm. Only in Egypt was a green-field investment established because the import of P&G products was not possible.

In the beauty care division, the market share was lower than in the detergents division. Unilever acquired Polena and thereby acquired a major market share in the Polish beauty care market.

VI.4.7. Conclusions of the Procter & Gamble case

Imports were favoured as long as it was feasible and cost competitive. Local contract manufacturing was preferred if imports were restricted (e.g. in Russia) and foreign direct investment, in the form of joint ventures or acquisitions, was only decided upon when these investments were politically safe, had an attractive rate of return and when capacity needs in the market were validated.

After four years, in 1993, P&G became the number one consumer goods company in Eastern Europe with 25 brands on the market. The business in 1993 was equal to half a billion dollars and already profitable after four years, earlier than the aim of 1998. The size of the market was equal to the market size in Latin America in the beginning of the 1980s. Compared to the entry into the countries in Western Europe, profitability was reached much faster in Eastern Europe. It took about eight years, on average, to reach profitability in each country P&G had entered in Western Europe.

Local brands were improved and own brands were produced locally and gradually, products were supplied in parts of Western Europe at a lower cost price, but equal quality.

For detergents and paper (diapers, feminine protection products) there was a need for local production, because of high transport costs and import duties. Because P&G was able to lower import

duties and create a mini common market, it did not need a manufacturing facility for every product category in each country. So, the Polish investment pre-dated the mini common market of the Visegrad area. Competitors such as Unilever thought that national borders would stay in place longer. That is the reason why they had investments for the same product category in different countries. The lower duties that the Polish Premier Balcerowicz introduced, for instance, proved a stimulus for foreign investors that wanted to invest for global markets.

VI.5. CONCLUSIONS OF THE CASE STUDIES

The four cases vary in the motivations for investment in Central and Eastern Europe: low labour cost seeking for Samsonite, getting access to registration for Glaxo-Wellcome, market seeking for Interbrew and seeking a strategic presence for Procter & Gamble. They are complementary to the econometric analysis of Chapter V, because they add important explanatory variables to the established list of factors that influence ownership choices and way of growth choices, namely the importance of speed in the choice of establishment mode and they make the complex role played by technology more clear.

The first case, Samsonite Europe, shows a company that invested quite early in Hungary mainly because of a capacity shortage in the soft-side segment and because of labour cost pressure and fierce competition if products were continued to be made in Western Europe. The soft-side segment of the luggage industry is more fragmented and more labour intensive and the target for relocation. Transportation costs and economies of scale are also lower for soft-side bags than for hard-side bags. Therefore, the relocation was a phenomenon of soft-side bags and the production of hard-side bags stayed centrally in Western Europe.

The company was ahead of potential competitors thanks to its operational experience gathered early in the mid-1980s. In Hungary, this enabled the company to acquire the best company in the industry early on, although quite some know-how input was still required. No other investors entered before. Samsonite's competitors did not invest in the region, but continued to operate with purchasing contracts. If Samsonite had not collaborated with Palota in Hungary, other companies might have done it or were certainly looking for sourcing opportunities in the same region. The investment was meant for re-export.

Samsonite's preferred entry mode was a wholly owned acquisition. This is the final result both in Hungary and in the Slovak Republic. Samsonite could not rely on its partners for specific investments, so wholly owned subsidiaries were preferred. The company had initially to deviate from this strategy in Hungary because of the insistence of its local partner to have a share in the venture. The company had hedged the risk and guaranteed the buy-out option in the joint venture contract and this option was executed as early as possible.

The second case, Glaxo-Wellcome, is an example of a company in an industry where there was theoretically no need for direct investment in Eastern Europe in the mid- 1990s. If a pharmaceutical company did invest, it was to get access to registration. Small investments were undertaken without any basic research or development activity.

However, the quality gap between Eastern European and Western European healthcare systems was likely to be closed within the next 25 years (OECD, 2000). The need for the Eastern European governments to restrain demand through cost containment will continue unabated, but the economy's capacity to pay for healthcare was expected to expand sufficiently rapidly so as to close relatively quickly the current quality and quantity gap with Western Europe.

Therefore, a big future market such as Poland was important for GlaxoWellcome. GW wanted to be a first mover in Poland to acquire a market share of 3.5 per cent. In order to increase market

share, it was necessary to get a grip on two market parameters. First, the follow-up of local clinical development was essential in every national market to familiarise healthcare providers with the drugs of the company. Second, it was necessary to obtain speedy registration of the company's prescription drugs.

The preferred entry mode is a wholly owned green-field investment. If a company deviates from this strategy, as for GlaxoWellcome's investment in Poznan, we found several reasons, namely legal restrictions (for a joint venture) or local relations (to increase market share in generics as a bridgehead for later filing of prescription drugs). Legal restrictions required employee and state participation in Polfa-Poznan that was therefore a joint venture and no wholly owned subsidiary. Once the shared participation was no longer required, the company's employees were bought out in 2000. Because of local relations and the enormous market potential in Poland, Glaxo acquired Polfa-Poznan with local OTC generics (respiratory products) as a first step towards the regulation and sale of its own prescription drugs later. The technological threshold for a green-field investment of that size would have been higher. Access to the local regulatory bodies would have been more difficult. Glaxo's Polish market share increased from to 7.5% through the acquisition. So, the importance of speedy entry led to an acquisition instead of a green-field investment.

The third case, Interbrew's investment, was motivated by market seeking. The brewery industry is a mature industry, with a mass consumption good output and saturation in the traditional markets. Local production is necessary because of high transport costs and import duties.

The first objective for entry into Eastern Europe was to gain market share in the short run. Market share can be acquired via access to local brands. In the longer run, higher value creation is aimed at by adding more qualitative beers. Eastern European consumption was expected to boom. As a consequence of that, speed of market entry was very important, much more important than assuring the ideal production facilities and therefore, acquisitions were done. The localisation is determined by the availability of a local brand. The preferred and realised entry mode is a joint venture acquisition investment.

The need to operate with a local partner was more stringent in Eastern than in Central Europe in order to get access to local knowledge. Gradually more joint ventures were established because of risk spreading, involvement of larger investment sums and a change in mentality of the shareholders of Interbrew.

Because speed of market entry is important, acquisition is preferred to green-field investment. The fact that a green-field investment would cost more, is only an additional reason for the acquisition choice. The acquisition enables a company like Interbrew to build on the local brand.

The fourth case, Procter & Gamble, is a case of entry because of a strategic motivation of presence in a new geographic market in a highly competitive industry. The strategy was to enter multiple markets and multiple categories simultaneously, starting with the lead brands and lead markets followed by parallel roll-outs at high speed. Imports were favoured as long as it was feasible and cost competitive. Local contract manufacturing was preferred if imports were restricted (e.g. in Russia) and foreign direct investment. The preferred entry mode was (joint or) wholly owned acquisitions.

For detergents and paper (diapers, feminine protection products) there was a need for local production, because of high transport costs and import duties. The acquisition of the Czech detergent plant is in line with P&G's preferences to acquire strong brands. Local brands were improved and own brands were produced locally and gradually, products were supplied in parts from Western Europe at a lower cost price, but equal quality.

The investment in Poland deviated from the preferred mode. It was a green-field instead of the

preferred acquisition mode because the product did not exist before in the region. P&G developed a mini common market in Eastern Europe and exported from within the region throughout the region.

Chapter VII.

Conclusions, key findings, limitations and further research

This dissertation focuses on the interrelated questions of the determinants of ownership and establishment mode investment entry decisions into an emerging economy such as Central and Eastern Europe in the 1990s. The analysis of the determinants of both types of entry mode decisions is done using a novel dataset on investments by EU15 investors in the years 1990-1997. The aim of this dissertation is to provide a more comprehensive understanding of the discriminatory forces that drive investment entry mode decisions. It tries to integrate different theoretical frameworks that explain ownership and establishment mode decisions.

The dissertation has four parts. Part one is divided in two chapters and defines types of entry and aspects of the investment entry problem and provides an overview of the theories developed in the literature to explain entry mode. Chapter one discusses aggregate evidence on foreign direct investment in Central and Eastern Europe in the 1990s and particular aspects of the transition countries at the time, such as privatisation and sources of uncertainty. Chapter two gives an overview of determinants of entry mode (and location) decisions in various theoretical frameworks.

Part two consists of chapter three that presents the sampling methods and describes the data gathered.

Part three with chapter four elaborates on the conceptual model we use to explain entry modes, both ownership and establishment mode decisions and formulates the hypotheses. It discusses how the variables are measured.

Part four consists of two chapters, chapter five and six. Chapter five provides and discusses the results of the econometric analysis of the model of entry mode, using the dataset. We studied the phenomenon of the first producer entrant into an emerging economy compared to later entrants. Theoretically novel is that we sought a joint explanation for a decision of ownership and establishment mode while controlling for order and location of investment. This is studied as a joint decision using the, partly convergent and, partly, overlapping perspectives of transaction cost economics, organizational learning theory, economics of uncertainty and strategy. Our econometric analysis compares simultaneous and hierarchical logit models of investment entry mode choices. Constructs were redefined, such as transactional uncertainty and its impact on both aspects of entry mode choices.

The empirical analysis adds to the existing literature on FDI as an entry mode, especially since we test this theory on a unique data set of EU-15 acquisitions and green-field investments in the CEE countries during the latter's transition of ownership patterns and inflow of FDI.

A recurrent conclusion is that for both establishment and ownership choices, the role of technological assets is different from the role played by sales promotion intensive assets. We argue that technologically sensitive assets are inherently more irreversible than are sales-promotion assets. The effect of transaction specific assets on ownership choice is different for technological and for sales competence. Investors with sales intensive projects tend to prefer full ownership, whereas research-intensive investors do not show a pattern. Firms in globally concentrated industries and resource seeking investors tend to form wholly owned subsidiaries rather than joint ventures. Specific to the transition context is the impact of high contractual uncertainty that encourages wholly owned subsidiary formation. Our results show that contractual uncertainty (variability in advancement in transition) and corruption are not interchangeable. They do not influence entry mode in the same way. Whereas contractual uncertainty stimulates subsidiaries, we noted no effect for corruption. One needs to bear in mind that the measurement of corruption is difficult. We found that investors with higher

endogenous sunk costs prefer joint rather than single venturing especially in the presence of high uncertainty. The contrasting explanatory power of transaction specific assets is also confirmed when combined with this real option hypothesis. The relative importance of an R&D intensive investment in case of high uncertainty increases the pressure for joint venture entry. The same effect occurs with the sunk tangible asset ratio. Sales-promotion assets, however, do not seem to be as irreversible.

Conceptualising the firm's establishment mode decision in the 1990s in the CEECs as a matter of organisational experience receives strong support in our analysis. Transaction specific assets also discriminate between establishment modes in a clear-cut direction. Both types of experience, multinational diversity and local operational experience encourage green-field rather than acquisition decisions. The role of assets is clarified. The more firm-specific advantages are linked to technical expertise, the higher the probability of green-field investments. On the contrary, if sales promotion transaction-specific assets need to be transferred, firms choose acquisitions. Brands are acquired together with the acquired firm in view of timely entry, especially in consumer good industries. Hennart, Park (1993) shows that sales intensive assets are transferred in acquisitions in consumer industries, but not in producer industries. Investigating how the impact of specific assets on establishment mode differs across different target industries promises to be a fruitful area for further research.

High external uncertainty, measured as the variability of market growth, leads to acquisition of existing capacity in the form of an acquisition. Speedy entry is more assured by acquisition. Contractual uncertainty, measured as the variability in advancement in transition, stimulates to go it alone in a green-field investment project. Typically in Eastern Europe in the 1990s, privatisation of companies has an accelerating effect on acquisition opportunities and competitive uncertainty in the Eastern European market dissuades investors from making acquisitions. It was shown that the Bartlett and Goshal typology of 'local for local' and 'local for global' investment is not a good indication of the concern for investment as market seeking or lower labour costs seeking. Finally, we found evidence on the basis of the unit labour cost ratio that investment into the lower-wage countries is mostly green-field investment. In further research, it may be useful to make a distinction between entry modes for investment in finished versus intermediate products. Since we focused on direct investment, the important phenomenon of contractual off-shoring of intermediate products is not taken into account. Omitted determinants of entry mode such as institutional restrictions and availability constraints prove to play a role. This is illustrated in the cases, where the preferred and real entry mode is compared.

Complementary to the econometric analysis, four case studies on the process towards the investment decision are presented in Chapter six. The cases vary in their motivation for investment: low labour cost seeking for Samsonite, getting access to registration for Glaxo Wellcome, market seeking for Interbrew and a strategic presence for Procter & Gamble. This influences the preferred entry mode. The role of transaction specific assets, and specifically, technological knowledge is shown to be important, as is the speed of entry.

An extension for further research is the study of subsequent investment decisions by the same investor in order to study how decision specific experience influences entry mode choices (Padmanabhan, Cho, 1999), Chang, Rosenzweig (2001)). Besides, replicating this research on entry modes in other national settings, such as the emerging economies such as China or India would help in establishing to what an extent our results are specific to the context and methods used.

Dit proefschrift behandelt de determinanten van eigendom en vestigingswijze bij investeringstoetredingsbeslissingen in een opkomende economie zoals deze van Centraal- en Oost-Europa in de jaren 1990. De analyse van de determinanten van beide types van toetredingsbeslissingen wordt gedaan met behulp van een nieuwe dataset van investeerders van de Europese Unie – 15 in de jaren 1990-1997. Doel van het proefschrift is tot een meer allesomvattend begrip te komen van de krachten die spelen bij de keuze van toetredingswijze van directe buitenlandse investeringen. Gepoogd werd verschillende theoretische denkkaders te integreren die eigendom en vestigingswijze verklaren.

Het proefschrift is ingedeeld in vier delen. Deel 1, dat twee hoofdstukken omvat, definieert de soorten toetreding en aspecten van het toetredingsprobleem bij directe buitenlandse investeringen en geeft een overzicht van de bestaande theorieën die toetredingswijzen verklaren. Hoofdstuk 1 geeft een overzicht van de geaggregeerde data van directe buitenlandse investeringen in Centraal- en Oost-Europa in de jaren 1990 en bespreekt bepaalde aspecten van transitie-economieën, zoals privatisering en oorzaken van onzekerheid. Hoofdstuk 2 geeft een overzicht van de determinanten van toetredingswijze (en locatiebeslissingen) vertrekkende vanuit de verschillende theoretische denkkaders.

Deel 2 , dat hoofdstuk 3 omvat, bespreekt de gebruikte methode van steekproefname en beschrijft de verzamelde gegevens.

Deel 3 met hoofdstuk 4 stelt het conceptuele model voor dat we gebruiken om de toetredingswijze te verklaren en formuleert de hypothesen. De metingsmethode van de variabelen wordt uiteengezet.

Deel 4 omvat twee hoofdstukken, de hoofdstukken 5 en 6. Hoofdstuk 5 stelt de resultaten voor van de econometrische analyse van het model van toetredingswijze, gebruik makende van de dataset en licht deze resultaten toe. We bestudeerden het fenomeen van de eerste producerende toetreder in een opkomende economie, in vergelijking met latere troetreders. Theoretisch vernieuwend is de zoektocht naar een gezamenlijke verklaring voor de beslissing van eigendom en vestigingswijze bij toetreding, waarbij gecontroleerd wordt voor de volgorde en de locatie van de investering. Hierbij zijn de ten dele convergerende, ten dele overlappende, perspectieven gebruikt van transactiekosteneconomie, organisatorisch leren, onzekerheidseconomie en strategie. Onze econometrische analyse vergelijkt simultane en hiërarchische logitmodellen van toetredingswijze bij directe buitenlandse investeringen. Sommige gebruikte concepten worden anders gedefinieerd, zoals bijvoorbeeld transactionele onzekerheid en de impact ervan op de beide aspecten van de beslissing van toetredingswijze.

De empirische analyse is een bijdrage tot de bestaande literatuur over directe buitenlandse investeringen als een toetredingswijze, temeer door de toets met behulp van een unieke dataset van overnames en start-ups door EU-15 investeerders in de transitie-economieën van Centraal- en Oost-Europa.

Een terugkerende vaststelling bij zowel vestigingswijze- als eigendomskeuzes is de verschillende impact van technologische vaardigheden enerzijds en verkoopsvaardigheden anderzijds. We argumenteren dat technologische vaardigheden meer inherent onomkeerbaar zijn dan verkoopsvaardigheden. Het effect van deze transactionele specifieke vaardigheden op keuze van eigendom is verschillend. Investeerders met projecten die gepaard gaan met een overdracht van hoge verkoopsknow-how verkiezen volledige eigendom, terwijl technologie-intensieve investeerders geen duidelijke voorkeur hebben wat eigendomsstructuur betreft. Bedrijven in op wereldschaal geconcentreerde bedrijfstakken en investeerders die inputs zoeken zullen eerder dochterbedrijven in

volledige eigendom oprichten dan joint ventures. Eigen aan de transitiecontext is het feit dat hoge contractuele onzekerheid tot de oprichting leidt van volledige dochterbedrijven. Onze resultaten tonen aan dat contractuele onzekerheid (variabiliteit in vooruitgang in het transitieproces) en corruptie niet hetzelfde effect hebben op toetredingswijze. Daar waar contractuele onzekerheid het oprichten van volledige dochterbedrijven stimuleert, is er geen effect van corruptie. De meting van corruptie is weliswaar moeilijk. Onder grote onzekerheid verkiezen investeerders met hogere endogene gezonken kosten joint ventures boven volledige dochterbedrijven. Het tegengestelde effect van beide categorieën vaardigheden blijkt ook hier, bij de zgn. reële optiehypothese. Onder grote onzekerheid vergroten de technologische vaardigheden betrokken bij het investeringsproject de impuls om een joint venture op te richten eerder dan een volledige dochteronderneming. Hetzelfde effect wordt bereikt bij grote gezonken technologische activa en niet bij verkoopsvaardigheden, die minder onomkeer blijken.

Het feit dat een vestigingswijze in grote mate bepaald wordt door de organisatorische ervaring van de investeerders wordt bevestigd in onze analyse van de investeringen in de jaren 1990 in Centraal- en Oost-Europa. Internationale ervaring en ervaring in het gastland verhogen de kans op greenfield investeringen, eerder dan overnames. Transactiespecifieke vaardigheden beïnvloeden de keuze van vestigigingswijze vrij eenduidig. Hoe meer de bedrijfsspecifieke competenties gerelateerd zijn aan technologische kennis, hoe groter de kans op greenfields. Wanneer daarentegen verkoopsvaardigheden dienen te worden getransfereerd kiezen de investeerders eerder voor overnames. Merken worden overgenomen samen met het overgenomen bedrijf wanneer snelheid van toetreding een rol speelt, zeker bij consumentengoederen. Hennart, Park (1993) komen tot de vaststelling dat verkoopsvaardigheden in overnames worden overgebracht bij bedrijfstakken van consumptiegoederen, doch niet in productiesectoren. Hoe de impact van specifieke vaardigheden op de vestigingskeuze verschilt naar gelang de bedrijfstak dient in verder onderzoek te worden uitgediept.

Hoge externe onzekerheid, gemeten als de variabiliteit van marktgroei, leidt tot overnames. De snelheid van toetreding is meer verzekerd door een overname dan door een greenfield investering. Contractuele onzekerheid, gemeten als variabiliteit in vooruitgang in transitie, stimuleert greenfield investeringen. Typisch voor Oost-Europa in de jaren 1990 is de privatisering die een versnellingseffect had op de overnamekansen. De competitieve onzekerheid in Oost-Europa ontraadde investeerders daarentegen om overnames te doen. De Bartlett en Goshal typologie van 'lokale productie voor de lokale markt' en 'lokale productie voor de wereldmarkt' blijkt geen goede indicator voor de motivatie van marktzoekende investeringen of investeringen omwille van lage (loon)kosten. We vonden tenslotte dat investeringen in de gastlanden met lagere loonkosten vooral plaatsvonden als greenfield investeringen. Bij opvolgonderzoek zou het nuttig kunnen zijn voor de investeringswijze een onderscheid te maken tussen investeringen in afgewerkte producten of in intermediaire producten. Door de specifieke toespitsing op directe buitenlandse investeringen is het fenomeen van de contractuele off-shore activiteit buiten beschouwing gelaten. Determinanten die niet in beschouwing werden genomen zoals institutionele beperkingen en beperkingen op beschikbaarheid van bedrijven spelen wel degelijk een rol. Dit werd geïllustreerd in de cases, waar de gewenste toetredingswijze en de effectief gerealiseerde toetredingswijze worden vergeleken.

In aanvulling op de econometrische analyse worden vier cases over het proces tot de toetredingsbeslissing uiteengezet in hoofdstuk 6. De cases variëren naar motivatie van de investeringen: het zoeken naar lage loonkosten in het geval van Samsonite, toegang bekomen tot registratie voor Glaxo Wellcome, het zoeken naar nieuwe markten voor Inbev en strategische aanwezigheid voor Procter & Gamble. Deze motivatie heeft een invloed op de gewenste vestigingswijze. De rol van de transactiespecifieke vaardigheden, en vooral deze van technologische kennis blijkt van belang, naast de snelheid van toetreding.

Een uitbreiding van het onderzoek is de studie van de opvolgingsinvesteringen om na te gaan

in hoeverre beslissingsspecifieke ervaring een rol speelt bij de keuze van de toetredingswijze (Padmanbhan, Cho, 1999), Chang, Rosenzweig (2001)). Het zou evenzeer nuttig zijn dit onderzoek opnieuw te toetsen in andere landen, zoals in de opkomende economieën van China en Indië om na te gaan in welke mate de gevonden resultaten specifiek zijn aan de gebruikte context en methodes.

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