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Structural Changes in Food Retailing:

Six Country Case Studies

edited by

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and

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 **Food System
Research Group**



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Chapter 6: The Case of Poland

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1. INTRODUCTION

Poland is the only transition country in Central and Eastern Europe covered in this book. With the transition from a socialist to a market economy, structural change in the retailing sector has been especially rapid and the new open markets in Poland have attracted foreign investors—throughout the economy in general and in the food-retailing sector in particular.

This chapter describes and analyzes the major trends in Polish food retailing. The structure of food retailing is described and explained in Section 2, first at the store level, then at the firm level. This section also covers how the powerful concentration process in food retailing has affected the marketing chain. Inward foreign direct investment (FDI) in Polish food retailing is detailed in Section 3. Given the special importance of FDI in the Polish economy during the transition process, the determinants of FDI in retailing within a cross-country dataset are analyzed in Section 4. Results are summarized in Section 5.

2. STRUCTURAL DEVELOPMENT IN THE POLISH FOOD-RETAILING SECTOR

The Central and Eastern European Countries (CEECs) experienced fundamental economic and social change in the 1990s. In the communist era, markets were centralized and put under state control, so that the private sector was suppressed. An underdeveloped infrastructure was the consequence, and business and consumer behavior deviated markedly from that in Western Europe. With the collapse of communism, the CEECs opened their markets and attracted capital, primarily from foreign enterprises, since the post-communist economies did not have sufficient financial reserves at their disposal. Within the group of CEECs, Poland is of special interest; with its 38 million inhabitants, it is the largest CEEC, and at the beginning of 1990, the country had already taken part in the first phase of the transformation process (Dries, Reardon and Swinnen, 2004). The transformation process was initiated when laws had been changed and it became possible to establish private firms.

Prior to the transformation process, the Polish retailing industry already comprised 155,000 shops and 77,000 registered kiosks and mobile traders. Of all these outlets, about 43,000 were privately owned. Thus, private enterprises already existed in the Polish retailing industry. Due to their small number and store size, however, the private sector remained relatively unimportant under communism.

The transformation started in the beginning of the last decade of the 20th century, when a law on private business was enacted, enabling entrepreneurs to set up their own businesses, employ staff without reference to central agencies, and operate business bank

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accounts. The new law had, however, only very limited impact, since its implementation was not clearly regulated (Dawson and Henley, 2002).

According to Dawson and Henley (2002), three phases of the transformation process can be distinguished: (i) a pioneer phase, (ii) a colonization phase, and (iii) a consolidation phase. The **pioneer phase** lasted from 1990 until the end of 1994. During this period, commodity prices were deregulated, export and import subsidies were removed, and there was a substantial devaluation of the domestic currency, the Zloty (Gorynia, 2002). Furthermore, large centrally organized, state-run chains were denationalized. The markets were rather unstable in this period and the consumer price index showed an extremely high inflation of about 130 percent on average. Nevertheless, individual companies entered this difficult market, such as Billa, Rema 1000 and Makro, as well as other trading ventures, which gained early experience (Dawson and Henley, 1999, Przybylska and Malina, 2000).²⁸ After further market regulations were adopted more investors were attracted to the upcoming market.

From September 1991 to the end of 1993 the initial adjustments in the move towards harmonization with the European Union were introduced (Gorynia, 2002).

In the era of **colonization**, starting in 1995, many other European enterprises followed the first movers, some of which were the French retailers Leclerc, Auchan, Dock de France, and Casino. In 1995, Jerónimo Martins, Tesco, Metro and Tengelmann also entered the Polish food-retailing market (see Table 7). This phase was characterized by a more active trade policy, which stimulated restructuring of production and exports (Gorynia 2002).

The **consolidation** process began in the late 1990s when the number of firms rose sharply, even though quite a lot of enterprises were eventually forced to leave the market again. The remaining companies began to create joint ventures, and concentrate on their most profitable areas of activity, selling the stores that did not fit their business concept (Dawson and Henley, 1999).

2.1 Structure and Changes at the Store-type Level

In the privatization process, prices were deregulated, and restrictions on product ranges, free trade and imports were eliminated (Burt, 2006). As a consequence, the total number of stores skyrocketed between 1991 and 1995. Table 1 reveals the total rose from less than 256,000 (1991) to more than 381,000 (1995), and, with much lower growth rates, to nearly 391,000 in the year 2000. Since 2000, the number of stores has declined again substantially.

The major increase in the number of stores, by about 50 % between 1991 and 1995, was the result of the privatization process. It occurred mainly in the category of retailing firms with one or two shops, at the expense of large retailing firms with 50 or more stores. In the proceeding consolidation process, the large number of newly privatized firms with

²⁸ Billa entered the market mainly by establishing supermarkets in Warsaw and Bielsko-Biala in 1990. Using a franchise system, Rema entered as a food discounter. Likewise, Makro had its beginnings in Warsaw and created its business there in 1994 (Dawson and Henley 1999: 41).

one or two stores suffered, as these could not compete with the European retailing groups that had become established in the meantime.

Table 1. Number of Shops of Retailing Firms

| | 1991 | 1995 | 2000 | 2005 |
|----------------------------|----------------|----------------|----------------|----------------|
| Total | 255,787 | 381,392 | 390,748 | 318,443 |
| up to 2 shops | 252,001 | 377,109 | 386,612 | 314,086 |
| 3-10 | 1,631 | 3,037 | 3,243 | 3,525 |
| 11-20 | 1,195 | 907 | 682 | 565 |
| 21-50 | 857 | 308 | 187 | 195 |
| 51-100 | 88 | 25 | 17 | 48 |
| 101-200 | 11 | 4 | 5 | 18 |
| more than 200 shops | 4 | 2 | 2 | 6 |

Source: CSO, various years.

The very large number of single stores in Poland after privatization was combined with small-scale and traditional organizations. The average sales area and product range was extremely low. During the 1990s, four new selling concepts were introduced in Poland, which had already been established in Western Europe as well as in other industrialized countries. These retailing formats were hypermarkets, supermarkets, discount stores and convenience stores. The Central Statistical Office of Poland defines store types as follows. In **department stores** the sales area exceeds 2000 m² and they carry a wide and universal assortment of foodstuffs as well as nonfood items. **Shopping centers** have a sales area between 600 m² and 1999 m² and they usually have the same range of goods as department stores. **Hypermarkets**, which are stores with more than 2,500 m² of sales area, sell a broad range of food and nonfood products using self-service. **Supermarkets** occupy retail space measuring between 400 and 2,499 m² and also use the self-service principle to sell a wide range of frequently purchased food and nonfood products (CSO, 2003). These store types typically use a High-Low (HiLo) pricing strategy. **Discount stores** are self-service stores that carry a range of products—mainly foods—in a low-cost style of presentation. They typically concentrate on a limited number of articles with a high turnover, and they follow an everyday-low-price (EDLP) strategy (EHI 2006). And the last classic Western store type, the **convenience stores**, are stores with less than 400 m² of sales area, typically in favorable locations. In these stores, food and nonfood products are sold, catering to consumers' daily needs (Auer and Koidl, 1997). Convenience stores are in their infancy in Eastern Europe, and therefore they have not been part of official statistics until now. **Other shops** have a retail area not larger than 119 m²—selling

a narrower range of product groups than convenience stores (CSO, 2003). This last class of shops is a relic of the old business structures (e.g., kiosks) in the communist era. Typical of this store type is a low investment in shop equipment, and a low level of service, as well as a poorly developed logistics and supply chains (Burt, 2006). In addition, many small stores exhibit a high degree of specialization. Thus, in conjunction with the new store types and their huge volume of non-specialized merchandise, they create a dual structure in retailing.

Permanent market places are separate areas or buildings where permanent or temporary outlets conduct retail sales activities every day or for several days of the week. **Seasonal markets** operate only for a defined period and are open no longer than six months each year.

Table 2 provides an overview of the relative importance of various store types in Poland from 1993-2005. The growth in the number of hypermarkets and supermarkets is striking.

Hypermarkets have only been included in the official Polish statistics since 2000, despite the fact that the first hypermarkets had already opened in the 1990s, mainly as a consequence of the large French and German retailing firms entering the market (Dawson and Henley, 1999). There were 99 hypermarkets in the urban centers of Poland when the statistics were first recorded. Since 2000, more parts of the country have opened up, and by 2005 the number of hypermarkets was 374. Large retailing firms tried to be the first to establish hypermarkets in the smaller cities (Dries, Reardon and Swinnen, 2004).

Table 2. Shops and Petrol Stations in Poland by Organizational Form, 1993-2005

| | 1993 | 1995 | 2000 | 2005 |
|--------------------------------|----------------|----------------|----------------|----------------|
| Department Stores | 129 | 134 | 135 | 95 |
| Shopping centers | 863 | 780 | 500 | 462 |
| Hypermarkets | - | - | 99 | 374 |
| Supermarkets | 673 | 752 | 1,602 | 2,716 |
| Other shops | 374,327 | 417,079 | 421,723 | 380,354 |
| TOTAL | 375,992 | 418,745 | 424,059 | 384,001 |
| Petrol stations | 4,559 | 5,344 | 7,744 | 10,036 |
| Permanent market places | - | 2,354 | 2,376 | 2,313 |
| Seasonal market places | - | 5,060 | 5,164 | 6,729 |

Source: CSO, various years.

It was not only hypermarkets that experienced strong growth. The number of supermarkets in Poland more than quadrupled between 1993 and 2005. At first, supermarkets were established in the higher-income urban areas. Then locations followed in municipal areas targeted at the middle-income and later at the lower-income households.

In contrast to hypermarkets, supermarkets also penetrated the poorest regions (Reardon and Swinnen, 2004). The number of trade stores and shopping centers showed a negative trend; the number of department stores slightly increased until 2000 but fell considerably after 2000.

Apart from the stores described above, petrol stations are playing an increasing role in Polish retailing. The permanent markets have not shown substantial change over time and there are still about 2,300 of these markets in Poland. In contrast, the number of seasonal markets has increased, the figure in 2005 being 6,729. It is striking that seasonal and permanent markets were able to raise their market share between 1995 and 2005 even though foreign enterprises had successfully entered the Polish retailing sector. One important reason is the growth of tourism in Poland, mainly border tourism, which presented the permanent and seasonal markets with new opportunities.

Although Poland has seen a big increase in the number of hypermarkets, an international comparison reveals that the country still has a rather low concentration ratio. There is potential for more structural change in food retailing. In 1998, the ten most important firms among the 50 largest retailers had a market share of about 60 %. By 2002, this proportion had risen to 70 % (Slawinska and Malkowska-Borowczyk, 2006). The top five food retailers captured a 48 % market share in 2001 (Dries, Reardon and Swinnen 2004, p.536). This is again quite a low figure—for comparison, the figure in Germany is higher than 60 %.

Table 3 illustrates the strong growth of the sales area in Poland's retailing sector. Apparently, the impact of very large stores outweighed the effect of consolidation among the very small "other shops" in terms of retail space. At the end of the communist era in 1989, an average business had a sales area of 11 m² (Dawson and Henley, 2002). After more than 15 years of development and much structural change, the sales-area share of traditional shops (<100m²) declined continuously, although they still accounted for 94 % in 2005. The larger sized stores, in particular stores with more than 400 m² sales area, gained substantially in terms of market share. These exhibited the highest growth rate in retail space between 1994 and 2005 with 1.2 %.

Not only did the transformation process bring about advantages for foreign market participants, but domestic enterprises also gained, particularly with the large and growing number of small shops during the transition period and later.

It has already been mentioned that the Polish retailing sector became attractive for many foreign firms. There was great market potential. Furthermore, no effective competition existed after the collapse of the communist system and firms were able to start with a systematic penetration of the market. Table 4 illustrates the relative importance of foreign companies in the different retail formats from 2001 to 2005. It gives both an overview of the proportion of domestic and/or foreign owners according to store type and the degree of privatization within the industry. It also shows that the commercial sector has been almost completely deregulated. According to Table 4, the share of the private sector in all retailing stores and petrol stations in Poland amounted to more than 99 % every year between 2001 and 2005.

Table 3. Market Share of Sales Area (%)

| | 1994 | 1995 | 2000 | 2004 | 2005 |
|---|----------------|----------------|----------------|----------------|----------------|
| Total | 415,449 | 425,600 | 431,991 | 370,169 | 384,001 |
| Sales area of shops in m² | 19,177,886 | 19,792,640 | 26,933,785 | 26,438,595 | 28,064,516 |
| below 50 m² | 92.2 | 91.9 | 92.5 | | |
| 50 - 100 m² | 4.7 | 4.8 | 3.8 | 94.7 | 94.0 |
| 101 - 200 m² | 1.9 | 2.0 | 1.8 | 2.4 | 2.7 |
| 201 - 300 m² | 0.5 | 0.5 | 0.6 | 0.9 | 1.0 |
| 301 - 400 m² | 0.2 | 0.2 | 0.4 | 0.5 | 0.6 |
| above 400 m² | 0.5 | 0.5 | 0.9 | 1.5 | 1.7 |

Source: Internal Market, various years.

Table 4 also reveals that the foreign share of all stores in the private retailing sector has increased from 0.7 % in 2001 to 1.4 % in 2005, which is still low. The major reason for the low foreign share in total stores remains the continuing predominance of the traditional and small-scale store structure.

Whereas the foreign share is negligible in the small-scale category “other stores,” the situation is very different with regard to the larger store types. As Table 4 illustrates, the foreign share was as high as 83.2 % for hypermarkets, 56.1 % for supermarkets and 20.3 % for shopping centers in 2005. Although the foreign share is clearly lower for department stores (9.5 %) and petrol stations (7.0 %), they are well above the foreign share of all shops in Poland (1.4 %).

Table 4 illustrates some interesting trends despite the short period covered. Between 2001 and 2005, the foreign share rose robustly for hypermarkets, i.e., by more than 30 %, and it declined markedly for department stores. For supermarkets (shopping centers), there was no continuous trend in the period 2001-2005, but the foreign share was clearly higher in 2005 than in 2001.

Table 4. Structure of Shops and Petrol Stations by Organizational Form and Ownership (%)

| | Sector and Ownership | Total Shops | Trade | | | | Petrol Stations |
|------|----------------------|-------------|-------------------|-------------------------|--------------|--------------|-----------------|
| | | | Department Stores | Stores/Shopping Centers | Hypermarkets | Supermarkets | |
| 2001 | Private sector | 99.6 | 97.8 | 96.9 | 99.4 | 99.5 | 95.1 |
| | <i>domestic</i> | 98.6 | 59.9 | 83.3 | 53.8 | 16.3 | 72.6 |
| | <i>foreign</i> | 0.7 | 30.7 | 10.2 | 45.4 | 81.6 | 6.1 |
| 2002 | Private sector | 99.6 | 98.1 | 97.6 | 99.5 | 99.5 | 95.6 |
| | <i>domestic</i> | 98.6 | 78.3 | 76.8 | 20.8 | 48.7 | 74.2 |
| | <i>foreign</i> | 0.8 | 17.9 | 18.2 | 77.3 | 50.7 | 6.6 |
| 2003 | Private sector | 99.7 | 98.0 | 98.1 | 100.0 | 99.9 | 95.8 |
| | <i>domestic</i> | 98.6 | 79.4 | 72.0 | 17.1 | 50.0 | 76.1 |
| | <i>foreign</i> | 0.9 | 15.7 | 24.2 | 81.9 | 49.7 | 6.0 |
| 2004 | Private sector | 99.6 | 99.0 | 98.2 | 100.0 | 99.9 | 96.1 |
| | <i>domestic</i> | 98.3 | 83.8 | 72.3 | 16.0 | 46.0 | 74.4 |
| | <i>foreign</i> | 1.2 | 13.1 | 24.0 | 83.1 | 53.7 | 7.1 |
| 2005 | Private sector | 99.7 | 98.9 | 98.3 | 100.0 | 99.8 | 97.2 |
| | <i>domestic</i> | 98.0 | 87.4 | 76.0 | 15.5 | 43.6 | 76.5 |
| | <i>foreign</i> | 1.4 | 9.5 | 20.3 | 83.2 | 56.1 | 7.0 |

Source: Internal Market, various years.

The overall picture shows that the Polish retailing sector offers many opportunities for domestic firms even after foreign companies have successfully entered the market. The rising domestic firms' share of Polish supermarkets, i.e., 43.6 % in 2005 compared with 16.3 % in 2001, is a case in point, as is the huge number of small "other shops" operated by Polish entrepreneurs. Furthermore, Dawson and Henley (2002) state in their article that there were already seven Polish-controlled hypermarkets in 1997, and from Tables 3 and 4 it can be seen that there are significantly more today.

Another important feature of food retailing in Poland is the development of discounters. Although they are not included in the official Polish statistics, discounters have established themselves in Poland, albeit their importance lags behind that in other European countries. Dawson and Henley (2002) report that more than 500 discount stores

already existed in 1998 and six companies operated them. That number had more than doubled by 2004, as Table 5 documents. Biedronka, a subsidiary company of Jerónimo Martins, maintains most discount stores. This Portuguese company leads the market, with more than 60 % of all Polish discount food stores belonging to the chain, followed by the German retailer Plus, which maintained 160 discount stores in 2004 and achieved high growth rates in 2003 and 2004, as did the Danish retailer Netto. The most impressive market entry can be ascribed to the German retailer Lidl that opened 70 new stores in 2003. But in the following year, only two further shops were opened, indicating that Lidl has concentrated its activities on the major economic centers in Poland. The German retailer Aldi entered the Polish discount market in 2008 (LZ|Net, 28 February 2008).

Although the market segment occupied by discount stores developed dynamically, the growth rate declined in 2004. This is evidence that discounters, like companies with other store types, targeted large cities first. They are now experiencing slower growth as the remaining areas are developed.

Table 5: Number of Discounters per Retailing Company

| Firm | 2002 | 2003 | 2004 |
|---------------------|-------------|-------------|-------------|
| Biedronka | 627 | 670 | 725 |
| Netto | 65 | 73 | 81 |
| Plus | 137 | 152 | 160 |
| S-Sklepy Dyskontowe | 125 | 125 | 133 |
| Lidl | 5 | 75 | 77 |
| Total | 959 | 1095 | 1176 |

Source: Ullmann (2004), p. 26.

2.2 Structure and Changes at the Firm Level

Powerful incentives motivated Western European retailers to enter the Polish market. Given the high ratios of supply concentration and strong price competition on domestic markets, retailing firms suffered from low profit margins and were on the lookout for promising new markets. As a result, large foreign retailers now occupy a significant position in the Polish retailing sector.

Table 6 gives an overview of the 20 most important retailing firms in Poland in terms of turnover in 2005. Metro is by far the largest retailer in Poland, followed by Jerónimo Martins and Tesco. Among the 10 most successful companies is only one domestic enterprise—Ruch. All other companies have their head offices in Western Europe. Of the top ten, four originate in Germany (Metro, Euro Cash, Schwarz-Group and Rewe), and three in France (Carrefour, Auchan and Géant). One trading venture is of Portuguese origin (Jerónimo Martins) and one is UK-based (Tesco). In contrast, there were five Polish companies (Milo, Bos, Polski Tyton, Eldorado and Polska Siec Handlowa Unia) ranking between 11 and 20 in 2005. Since 2005, new merger activities have taken place.

Meanwhile, Milo has become part of the German firm Lekkerland, which is now positioning itself in the growing markets of Central and Eastern Europe (LZ|Net 2006a), and Bos has become part of Eldorado, Poland.

The fact that four domestic companies could rank among the top 20 retailers in Poland emphasizes that the developing food markets provide new opportunities for all market participants.

Table 6: Top 20 Leading Retailers in Poland, 2005

| Position | Company | Channel of Distribution | Net Sales 2005 in Mill. Euros |
|----------|------------------------------|---|-------------------------------------|
| 1 | Metro | Makro Cash & Carry, Real, Media Markt, Saturn | 2,907 |
| 2 | Jerónimo Martins | Biedronki | 1,334 |
| 3 | Tesco | Tesco, Savia | 1,329 |
| 4 | Carrefour | Carrefour, Champion | 1,168 |
| 5 | Auchan | Auchan, Schiever, Elea | 1,133 |
| 6 | Ruch | Ruch | 950 |
| 7 | Géant | Géant, Leader Price | 901 |
| 8 | Eurocash | Eurocash, KDWT | 809 |
| 9 | Schwarz-Group | Lidl, Kaufland | 721* |
| 10 | Rewe | Minimal, Selgros | 687 |
| 11 | Milo ^{a)} | Milo | 679 |
| 12 | Plus Discount | Plus Discount, Obi | 634* |
| 13 | Bos ^{b)} | DLS, Express Podlaski, Bos, Sygel-Jool | 560 |
| 14 | Ahold | Hypernova, Albert | 522* |
| 15 | ITM | Intermarché, Bricomarche | 487 |
| 16 | E. Leclerc | Leclerc | 447 |
| 17 | Polski Tyton | Polski Tyton | 319 |
| 18 | Eldorado | Eldorado, Stokrotki, Groszek | 318 |
| 19 | Zabka | Zabka | 309 |
| 20 | Polska Siec Handlowa Unia | PSH Unia | 279 |

^{a)} Part of Lekkerland.

^{b)} In the meantime part of Eldorado. * Estimated.

Source: LZ|Net (2006b).

The general development of the Polish retailing sector can be compared with the colonization phase during the transformation process. Retailers targeted large cities first, then smaller cities and average-income regions.

Burt (2006) denominates Poland as a so-called “battleground” market (besides the Czech Republic and Hungary). The promising Polish retail market attracted most of the international players in the sector competing among each other for market shares. Three different effects influenced the process of entry, competition and finally exit or survival. A first reason for consolidation was characterized by market exits due to “strategic

realignment of activities.” The exits from the cash-and-carry sector by Karsten/Maxa (1991-1996), and Booker from the joint venture with Jerónimo Martins (1995-1998), as well as the sale of Dohle’s Hit hypermarkets to Tesco in 2002, are examples for this point.

Second, merger and takeover activity within the wider European grocery market also contributed to consolidation in the Polish market. The mergers of Billa by Rewe (1996), of Docks de France by Auchan (1996), of Allkauf by Metro (1998), and of GIB by Carrefour (2000) were cases in point. The bankruptcy of Interkontakt is also indicative of this type of consolidation.

The third type of consolidation grew from the tendency of retailing firms to concentrate on individual core areas. This led to a leaner and probably more efficient firm structure within Poland. Store types that did not belong to the core authority were sold.

Jerónimo Martins focused on discount stores and therefore took control of Metro’s discount chain TIP (1999). In contrast, the established hypermarkets and the cash-and-carry stores were sold to Ahold (2002) and Eurocash Cash & Carry (2003) respectively. Ahold concentrated on supermarkets (Albert) and on compact hypermarkets (Euronova). For this reason, the Sesam discount chain was converted into Albert supermarkets and the large hypermarkets were transferred to Carrefour (2002/03). The German retailer Rewe expanded into cash-and-carry (Selgros) and discounter markets (Penny). As a consequence, some Billa supermarkets were sold to Ahold.

Structural change in the retailing industry, precipitated by the transformation process, is not necessarily advantageous to Polish retailers only. The primary sector may benefit from this development, too. In particular, new markets will be created for the agrarian sector, provided farmers are able to meet the retailers’ requirements for local products in sufficient quantities and at a predetermined quality level. However, the necessary adjustments mean that farmers face major challenges. It may well be that smaller farmers are among the losers, as a fixed transaction cost component plays an important role in the farmer-retailer relationship, and retailers cooperating with a higher number of small farmers will have higher costs than retailers working with fewer and larger farmers. In addition, smaller farmers often lag behind in terms of investment due to insufficient financial resources and/or disadvantages in imperfect rural credit markets (Dries, Reardon and Swinnen, 2004).

The next section concentrates on foreign direct investment (FDI) flowing into the Polish grocery-retailing industry. FDI captures long-term investment by a non-resident combined with control over a share of 10 % or more. In the following section, we analyze FDI development and change during different stages of transformation and draw attention to what characterizes companies with the biggest interest in foreign direct investment.

3. FOREIGN DIRECT INVESTMENT

The rising global importance of multinational enterprises (MNEs) and the consequential increase of foreign direct investment (FDI) have been researched greatly for the last 30 years. In his basic approach, Dunning (1977) argues that an entrepreneur’s decision whether to serve a market by trade or investment depends on the possibility to

exploit ownership-location-internalization (OLI) advantages. Ownership advantages include location-independent firm-specific advantages like patent rights, strong brands, and superior management abilities, whereas location advantages might be lower wages, easier access to raw materials, favorable tax environment, and, especially important for retailing, proximity to markets and consumers. Internalization advantages occur when internal production abroad induces higher benefits, compared to other solutions like franchising, licensing or exporting. Other authors tried to integrate the theory of multinational enterprises into international trade theory. Helpman (1984) and Helpman and Krugman (1985) focused on the development of vertical MNEs via factor-price differences. Markusen (1984) concentrates on horizontal MNE due to trade costs. Further steps include the introduction of ownership and location advantages into general-equilibrium trade models (see Brainard, 1997; and Markusen and Venables, 1995 and 1996). The implicit assumptions of endogenously arising MNEs and two-way FDI were the main issues of several empirical studies using the gravity model (Brainard, 1997; Eaton and Tamura, 1996; Brenton, 1996).

Empirical studies about determinants of FDI-flows into Central and Eastern European countries show, inter alia, a strong impact of market size/potential, low unit labor costs (Bevan, 2004; Carstensen, 2004; Clausing, 2005), policy-induced incentives for FDI and the quality of institutional parameters of the host country (Disidier, 2004; Witkowska, 2007), and European Union (EU) Accession proposals (Bevan, 2004; Clausing, 2005) as main driving forces for FDI.

The reasons for foreign direct investments are multilayered and usually firm dependent. This topic is dealt with in detail in the literature on industrial organization and microeconomics. Burt (2006) elaborated that market entry by firms in CEECs was crucially affected by the following factors: a) market opportunity; b) cost advantages; c) chances for profit; d) public relations and reputation; and e) historical and cultural relationships.

Points a) and c) in particular are very relevant in the case of the Western European retailing companies (for example in Germany), since their domestic markets are often characterized by low growth rates as a consequence of high concentration ratios and strong price competition. It was a disadvantage to the domestic Polish economy that no capital reserves were formed during the communist era, or could be formed, which could have been invested when the transformation process started. Therefore, the funds urgently needed for restructuring could originate only from foreign countries (Przybylska and Malina, 2000).

Even with this working in Poland's favor, there were still obstacles to FDI. The potential barriers are, on the one hand, the culture of Poland and, on the other hand, structural and political characteristics. The problems include logistics and supply, communication, management abilities, unstable prices, hyperinflation, political and economic instability, as well as black-market and investment risks (Burt, 2006).

Economic instability is highly relevant to the initially slow progress of the Polish transformation process in the early 1990s and, for example, explains why the hypermarkets were late to enter the market.

Despite these difficulties, potential investors in Poland can see that developments in the country's structural data have been positive. Thus, the annual growth rate of real Gross Domestic Product (GDP) amounted to 4.5 % on average (1995-2007). Moreover, Poland is the largest Central and Eastern European country with a population of 38 million. Since 2000, the inflation rate has been at the same level as other European Union member states. The political risk declined substantially when Poland was admitted to the Organization for Economic Co-operation and Development (OECD) (1996) and the North Atlantic Treaty (NATO) (1997). Poland's export industry has been limited mainly to the EU, with two thirds of exports being shipped to EU countries. As stated in section 2, the crucial factor has been changes to the basic legal conditions, which have resulted in opening markets. The attractiveness of the Polish food-retailing sector lies in the high level of expenditure on food—as much as a third of household incomes (Dawson and Henley, 1999)—thus making Poland the sixth largest food-retailing market within the European Union.

Table 7 lists foreign investors and when they entered the market. In some cases, their year of withdrawal from the market is also shown. Companies from Austria (Karl Wlaschek), Belgium (GIB) and Netherlands (Karsten/Maxa) were pioneers in the Polish retailing industry. They entered the growing market as early as 1991. After 1994, large German, French and Dutch retailers followed them.

In the meantime, German and French companies have become the main foreign investors in the Polish food-retailing sector (e.g., Metro, Carrefour, Auchan). Between 1996 and 1998 in particular, German and French firms more than doubled their number of stores with high levels of financial investment (Dawson and Henley, 2002).

It seems that German retailers enjoyed a competitive advantage on the Polish market in various regions. They had already experienced privatization of the sector in the former German Democratic Republic. Additionally, German, as well as Austrian firms, benefited from their proximity to Poland, in terms of both geographical distance and cultural background. An interesting feature of competition on the Polish food market in transition was that, before larger formats followed, most retailers conquered the new market with medium-sized store types.

It is noticeable that almost all foreign companies that entered food retailing before 1994 have now left the Polish market again. There is only one exception: Metro was the only firm among the early newcomers that coped successfully with the difficulties of the Polish market in transition. Whereas Metro became the most successful retailer and a market leader in Poland, most companies withdrew from the Polish market during the second stage of the transformation process (e.g., Docks de France, Allkauf and Makro), and very few stayed until the third stage, namely reorganization (e.g., Interkontakt, Karl Wlaschek, Dohle, Edeka and Reitan).

Table 7. Western European Retailers and Year of Entry and Exit in Poland's Food-Retailing Industry

| Company | Origin | Years of Entry/Business |
|------------------------------------|----------------|--------------------------------|
| Julius Meinl | Austria | 1997 |
| Schwarz Group | Germany | 2002 |
| Metro | Germany | 1994 |
| Rewe | Germany | 1996 |
| Tengelmann | Germany | 1995 |
| Dansk Super | Denmark | 1995 |
| Auchan | France | 1996 |
| Carrefour | France | 1998 |
| Casino | France | 1996 |
| Intermarché | France | 1997 |
| Leclerc | France | 1996 |
| Ahold | Netherlands | 1995 |
| Jerónimo Martins | Portugal | 1995 |
| Tesco | United Kingdom | 1995 |
| <i>Previously operating</i> | | |
| Karl Wlaschek | Austria | 1991-2006 |
| GIB | Belgium | 1991-2000 |
| Interkontakt | Czech Republic | 1997-1999 |
| Allkauf | Germany | 1995-1998 |
| Dohle | Germany | 1994-2002 |
| Edeka | Germany | 1997-2003 |
| Docks de France | France | 1995-1996 |
| Reitan | Norway | 1998-2003 |
| Karsten/Maxa | Netherlands | 1991-1996 |
| Makro | Netherlands | 1994-1997 |
| Booker | United Kingdom | 1995-1998 |

Source: Burt (2006), pp. 145 et seq.

Table 8 summarizes investment undertaken by foreign enterprises in the Polish retailing and repair sector, and the investment activities of the Polish sector abroad in the period 1994-2004. The Polish retailing and repair sector is characterized by a high net inflow of foreign capital. The ratio between the inward position, i.e., FDI stocks of foreign firms in Poland, and the outward position, i.e., FDI stocks of Polish investment abroad, was as high as 38.2:1 in 2004. The inflow of financial funds grew robustly from 161 million US\$ in 1994 to 1,482 million US\$ in 2004. The Polish retailing sector in general and food retailing in particular continue to attract foreign capital. This holds true despite rising retail concentration and increasing price competition.

Polish FDI in the retailing sector of other countries experienced ups and downs, see Table 8. There were even some years of disinvestment (1998-1999 and 2002-2003). The high increase in outward FDI in 2004 suggests a strong investment boom as a consequence of Poland joining the EU.

Table 8. Direct Investment in the Polish Retailing and Repair Sector, Million US\$, 1994-2004

| 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 |
|--------------------------------------|------|-------|-------|-------|-------|-------|-------|-------|--------|--------|
| <i>Direct Investment from Abroad</i> | | | | | | | | | | |
| 161 | 512 | 612 | 433 | 782 | 834 | 749 | 824 | 758 | 699 | 1,482 |
| <i>Inward position</i> | | | | | | | | | | |
| 446 | 885 | 1,335 | 1,704 | 2,767 | 4,708 | 5,720 | 7,386 | 8,186 | 11,087 | 15,310 |
| <i>Direct Investment Abroad</i> | | | | | | | | | | |
| 6 | 18 | 15 | 7 | -16 | -5 | 6 | 24 | -17 | -4 | 205 |
| <i>Outward Position</i> | | | | | | | | | | |
| 82 | 136 | 117 | 94 | 100 | 138 | 151 | 90 | 93 | 159 | 434 |

Source: OECD (2003).

Table 9 provides additional information on the significance of individual foreign retailers for and during the transformation process in Poland. This information refers to the capital invested by major foreign investors in the retailing sector, their country of origin, their activities and each firm's rank among all foreign investors in the Polish economy.

The five most important foreign investors in retailing belong to the top 50 foreign investors in the Polish economy. Two firms—Metro with 1.5 and Tesco with 1.3 billion US\$ capital invested in 2004—rank among the top-10 foreign investors. This is remarkable, given that FDI in retailing amounted to 12.2 % of total FDI in the period 1994-2002. All five leading foreign firms in the retailing sector, i.e., Metro, Tesco and the three French firms Carrefour, Casino, and Auchan, invested more than 600 million US\$ each in Poland. It is striking that 18 of the top 20 foreign investors in retailing are engaged in food retailing. Only two firms in the top 20 are nonfood retailers alone.

Table 9 also highlights the absolute dominance of EU firms in all FDI in the Polish retailing sector. Among the 26 firms listed in Table 9, all home countries of the FDI stocks are EU countries. Twenty-five of the 26 firms are from “older” EU member states and only one—Interkontakt Group of the Czech Republic—is from one of the new EU member countries. This suggests not only that the food trade is mainly intra-EU trade but also that FDI is almost exclusively within the EU.

Table 9. Major Foreign Investors in the Polish Retailing Sector, December 2004

| Overall Position | Investor | Capital invested (mill. US\$) | Origin | Activities |
|-------------------------|----------------------------|--------------------------------------|----------------|---|
| 5 | Metro Group | 1508.0 | Germany | Wholesale and retail trade |
| 8 | Tesco | 1300.0 | UK | food retailing |
| 17 | Carrefour | 980.0 | France | food retailing |
| 22 | Casino | 801.0 | France | food retailing |
| 28 | Auchan | 672.2 | France | food retailing |
| 51 | Jerónimo Martins | 386.3 | Portugal | food retailing |
| 136 | Kingfisher | 104.0 | UK | other retail sale of new goods |
| 143 | NETTO A/S | 100.0 | Denmark | food retailing |
| 212 | Royal Ahold | 59.0 | Netherlands | food retailing |
| 227 | Rewe | 53.5 | Germany | food retailing |
| 228 | Fegro-Markt Corporation | 53.5 | Germany | food retailing |
| 230 | Leclerc | 52.0 | France | food retailing |
| 289 | Interkontakt Group | 36.0 | Czech Republic | wholesale food |
| 306 | Plus Trading Company | 32.4 | Germany | food retailing |
| 370 | Rossmann | 22.0 | Germany | retail sale of cosmetics and toiletries |
| 397 | Politra (Eurocash) | 18.6 | Netherlands | food retailing |
| 498 | KIPI (Eurocash) | 12.4 | Netherlands | food retailing |
| 524 | Reitangruppen | 11.1 | Norway | food retailing |
| 544 | Neinver | 10.0 | Spain | food retailing |
| 667 | Julius Meinl International | 6.5 | Austria | food retailing |
| 863 | Harris | 2.8 | Austria | food retailing |
| 902 | Docks de France | 2.5 | France | food retailing |
| 953 | Danish Fast Food | 2.0 | Denmark | manufacture and retail of food |
| 1028 | HTS Duisburg | 1.3 | Germany | retail sale of cosmetics and toiletries |
| <i>Sum</i> | | <i>6227.1</i> | | |

Source: PA|IZ (2005), p. 10.

4. DETERMINANTS OF FOREIGN DIRECT INVESTMENT IN THE POLISH RETAIL TRADE

The objective of this section is to identify determinants of FDI in the retailing sector. Since a comprehensive dataset for FDI in Polish food retailing is not available, the analysis does not focus exclusively on Poland, but includes Poland and seven other European countries.

Table 10. Foreign Direct Investment in Selected European Countries (Average 1996-2003)

| Country | Inward position of <i>FDI</i> in the Retailing and Repair sector | | Inflows of <i>FDI</i> in the Retailing and Repair sector | |
|----------------|--|-------------|--|-------------|
| | FDI (Mill. US\$) | FDI/GDP (%) | FDI (Mill. US\$) | FDI/GDP (%) |
| Poland | 4,623.80 | 23.79 | 656.80 | 3.65 |
| Hungary | 1,206.61 | 50.98 | 325.75 | 5.92 |
| Slovakia | 926.46 | 55.23 | 171.21 | 7.22 |
| Czech Republic | 2,615.74 | 48.38 | 645.32 | 10.08 |
| Italy | 4,838.23 | 4.69 | 538.73 | 0.46 |
| Portugal | 2,123.43 | 29.13 | 642.99 | 5.56 |
| Germany | 22,589.41 | 14.21 | 1,836.30 | 0.86 |
| France | 14,575.09 | 11.69 | -92.17 | -0.01 |

Source: Author computations with OECD 2004 and IMF 2007.

Comparative data on FDI in several countries are available from the OECD. Two different specifications of FDI were used in our analysis: first the inward position of direct investments from abroad as a cumulative stock, and second the inflow of FDI. In Table 10, eight-year averages of different measures of FDI reveal how countries have received various levels of foreign direct investment from abroad. Additionally, respective indicators are weighted by GDP in individual countries to account for differences in country size and economic wealth.

As described in Section 3, Poland's retailing sector received a considerable amount of FDI since the middle of 1990 and after joining the EU in 2004, in particular. Consequently, Table 10 indicates that Poland is the most important host country for FDI stocks and flows in absolute terms among the CEECs. Yet the level is still considerably lower than direct investment from abroad in Germany or France. The case of Italy illustrates the influence of different FDI indicators. Whereas the average inward position of FDI in Italy is higher than in Portugal, the average inflow of direct investment is higher in Portugal.

Section 4.1 outlines the hypotheses regarding FDI determinants and describes the model and data. Empirical results of the analysis are discussed in Section 4.2.

4.1 The Analytical Concept: Potential Determinants of Foreign Direct Investment

There is broad theoretical literature on the determinants of FDI (Markusen, 1998) as well as empirical evidence of their relative importance (e.g., Wheeler and Mody, 1992, Culem, 1988). In recent years, there has been increasing interest in what drives the location

decisions of foreign firms in the European transition economies (Bevan and Estrin, 2004, Carstensen and Toubal, 2004). Individual studies have concentrated on Poland in general (Przybylska and Malina, 2000) and on the Polish food-manufacturing sector (Walkenhorst, 2001). In the following multivariate analysis, FDI stocks and flows in the retailing sector are explained across countries and over time by structural differences in the retailing sector, including market size, proportion of specialized stores, personnel costs, and former investment behavior²⁹.

The individual explanatory variables and hypotheses regarding their marginal impact on FDI follow.

Market Size

An indicator of market size of the retailing sector is turnover. We posit that the existence of a rapidly expanding market in the host country is an important argument for the selection of the country in which FDI takes place (Przybylska and Malina, 2000, Wendt and Pederson, 2006). Therefore, increasing turnover in the retailing sector appears to be an incentive for FDI abroad. Two different indicators are included in the analysis: absolute turnover in the respective countries and years (*TURNOVER*) and the turnover per enterprise, i.e., the relative turnover (*TURNOVER_{rel}*). Data on turnover in the retailing and repair sector are contained in EUROSTAT 2007 and measured in US\$.³⁰

Proportion of Specialized Shops in the Retailing Sector

FDI in the retailing sector in Poland is concentrated in specific store types (see Section 3). The Polish retailing sector is dominated by a large number of small and specialized shops. But non-specialized stores like supermarkets, hypermarkets or discounters capture the major share of FDI, whereas specialized stores like fruit and vegetable grocers are typically not affected. Therefore, a structural indicator is incorporated which describes this dual structure in the retailing sector. Since food products are sold either in non-specialized or specialized stores, the turnover in non-specialized stores versus specialized stores is a structural indicator that characterizes the retailing sector as more modern or more traditional. Especially in Poland, the proportion of non-specialized stores compared with specialized stores was very low in the years analyzed, indicating that the retailing sector consisted mainly of specialized stores, and that it therefore follows a more traditional pattern than in other CEECs (see Table 11). In contrast, the structure of Hungarian retailing is similar to the retailing patterns in Germany and France, with a high proportion of non-specialized shops. Two different specifications of the structural indicator are taken into account in order to reflect the differential retailing sectors of the CEECs. Both indicators were computed with data from EUROSTAT 2007.

²⁹ In Central and Eastern Europe the privatisation process can be considered a major factor for attracting FDI (see Section 2). Therefore we were looking for an indicator describing the degree of privatisation in the respective countries. The European Bank for Restructuring and Development (EBRD) publishes an indicator for the degree of privatisation, which ranges from 1 to 4 (with 1 a low degree of privatisation and 4 a high one). Unfortunately, in the years from 1996 to 2003, no changes over time could be observed.

³⁰ Detailed figures for the retailing sector alone are not available (EUROSTAT 2007).

STRUCTURE1 shows the turnover in non-specialized stores in retailing which sell food and luxury articles, beverages and tobacco products (sector G5211 in the definition of EUROSTAT 2007) as a share of *TURNOVER* in specialized stores for the same category (e.g., fruit and vegetable grocers) (sector G522):

$$STRUCTURE1 = \frac{TURNOVER\ G5211}{TURNOVER\ G522} \quad \text{Equation (1).}$$

STRUCTURE2 reflects the fact that in Eastern Europe sales from market stalls are typical. Therefore, this indicator includes the turnover of stalls in the denominator (sector G5262):

$$STRUCTURE2 = \frac{TURNOVER\ G5211}{TURNOVER\ G522 + G5262} \quad \text{Equation (2).}$$

Table 11. Average Proportion of Non-specialized vs. Specialized Stores (1996-2003), Selected Countries

| Country | STRUCTURE1 (%) ^{a)} | STRUCTURE2 (%) ^{a)} |
|----------------|------------------------------|------------------------------|
| Poland | 3.14 | 2.64 |
| Hungary | 9.12 | 8.12 |
| Slovakia | 5.43 | 4.91 |
| Czech Republic | n.a. ^{b)} | n.a. ^{b)} |
| Italy | 3.93 | 3.07 |
| Portugal | 3.44 | 3.21 |
| Germany | 8.36 | 7.01 |
| France | 12.15 | 9.58 |

^{a)} The structural indicators are defined in the text.

^{b)} Not available.

Source: Author computations with EUROSTAT 2007.

Increasing activity by foreign retailing companies in the host market raises *STRUCTURE1* and *STRUCTURE2*, as the number of non-specialized stores grows and the percentage of specialized stores declines.

Two opposing hypotheses seem plausible regarding the impact of *STRUCTURE1* or *STRUCTURE2* on FDI. First, as the number of non-specialized stores rises, the host population is becoming familiar with those store types. Consumers may increasingly value the advantages of one-stop shopping, which is what supermarkets and hypermarkets provide, and the opportunities of HiLo pricing offered by these store types. These trends in consumer behavior would favor additional FDI. Another reason for the positive impact of *STRUCTURE* on FDI could be the higher proportion of larger store types, as this means there is more potential for merger activities and for investment abroad in the host country.

Secondly, the variables *STRUCTURE1* and *STRUCTURE2* have continued to be below average for the CEECs in particular. We can expect these variables to converge at a higher level across EU countries in the medium term. Therefore, it might be that FDI is attracted more to those countries where the average store size is still low and the backlog in

investment is particularly high. This is rationale for a negative impact of *STRUCTURE* on FDI.

Personnel Costs

Personnel costs (*PC*) are considered to be another potential determinant of FDI in the retailing sector. The underlying hypothesis is that countries with lower personnel costs would attract more foreign direct investment from abroad, as the lower costs are incentive to invest in a specific location. Personnel costs in the retailing and repair sector are defined as the total remuneration payable by an employer to an employee. It includes taxes and employees' social security contributions. Relevant data are contained in EUROSTAT 2007.

Former Investment Behavior

Apart from structural differences in the retailing sector, former investment behavior is likely to influence actual decisions. As pointed out in Sections 2.1 and 3, cautious investment by foreign retailers in the initial stages of the transformation process is followed by further investment decisions as customers get used to the new retail formats, thus resulting in an increasing number of stores owned by foreign enterprises. Therefore, the stock of FDI in the previous year is included as an additional explanatory variable ($FDI_{Stock\ i,t-1}$).³¹

As explained above, two specifications of the dependent variable FDI in the individual years and countries are used: first, the inflow of direct investment from abroad and, second, the cumulative stock of FDI, analyzed in our case study. The reason for using the stock of FDI as a dependent variable is that investment behavior is unlikely to be based only on contemporary decisions but takes into account direct investment in former years.³² Walkenhorst (2001) argues that initial foreign investment triggers follow-up investment in subsequent years, for example, in order to achieve a controlling share in the foreign market or company. The use of cumulative stocks of FDI is more likely to describe this kind of investment behavior.

Based on these arguments and hypotheses, the following economic relationship is suggested:

$$FDI_{Stock\ i,t} = f(Turnover_{i,t}, Structure_{i,t}, PC_{i,t}, FDI_{Stock\ i,t-1}) \quad \text{Equation (3).}$$

$FDI_{Stock\ i,t}$ is the stock of foreign direct investment in country i in year t . *TURNOVER* _{i,t} , *STRUCTURE* _{i,t} and *PC* _{i,t} stand for the turnover in the retailing and repair sector, the proportion of specialized stores and the personnel costs in country i in year t respectively. $FDI_{Stock\ i,t-1}$ is the previous stock of foreign direct investment in country i .

³¹ Unfortunately, the consideration of former investment behaviour as an explanatory variable reduces the number of observations.

³² The decision to use the stock of direct investment from abroad as the dependent variable is justified by the statistical analysis presented in Section 4.2. The estimation with inflows of foreign direct investment as the dependent variable has a considerably lower R^2 and less significant variables.

Walkenhorst (2001) uses a panel model to investigate the determinants of FDI flows in the Polish food industry. Based on the geographical distance from Poland, he establishes three home country groups that invested in Poland and analyzes twelve food branches. Due to limited data availability, a similar Poland-specific analysis of FDI is not possible and we have selected, therefore, a cross-country dataset in which Poland is included as one of several Central and Eastern European transition countries. An econometric model is used with several dummy variables capturing the country-specific effects. The basic model is:

$$\begin{aligned}
 FDI_{Stock\ i,t} = & \beta_1 + \beta_2 Turnover_{i,t} + \beta_3 Structure_{i,t} + \beta_4 PC_{i,t} + \beta_5 FDI_{t-1, i,t} \\
 & + \beta_6 DPOLAND + \beta_7 DHUNGARY + \beta_8 DSLOVAKIA + \beta_9 DGERMANY \\
 & + \beta_{10} DFRANCE + \beta_{11} DPORTUGAL + \varepsilon_{i,t}
 \end{aligned}
 \tag{4}$$

Seven country dummies are included in equation (4), but not Italy, i.e., the benchmark country. $\varepsilon_{i,t}$ is a normally distributed error term.

4.2 Empirical Results

Based on the basic econometric model explained above, very different model specifications have been estimated. The results of four multiple regression models are presented in Table 12. Models 1 to 3 take into account that the cumulative stock of foreign direct investment is more likely to describe the underlying hypotheses that initial investments were followed by additional investments in subsequent years. Consequently, the cumulative stock of FDI is used as the dependent variable. In Models 1 and 2, the FDI_{Stock} , as well as the explanatory variables turnover and former investment behavior (FDI_{t-1} ; incorporated only in Model 1), are weighted by the GDP of the respective countries, taking into account differences in country size. In Model 3 the dependent variable FDI_{Stock} is unweighted, and in Model 4 the inflow of FDI as a share of the GDP is used as the dependent variable.

The results are largely consistent with expectations. Only one variable, i.e., personnel costs, was statistically insignificant in all specifications. This suggests that labor costs might be less relevant in retailing than in other sectors of the economy when deciding where to locate FDI. Hence, this variable was excluded from the estimations presented.

One important result in Table 12 is that the basic explanatory model for the FDI decision is clearly more suitable for FDI stocks than for FDI flows in the retailing sector. The corrected coefficients of determination are much higher for Models 1 to 3 than for Model 4. With the exception of four countries' dummy variables, the explanatory variables are not statistically significant in Model 4 and the adjusted \bar{R}^2 decreases from 0.98 in Model 1 to 0.47 in Model 4.

In Models 1 to 3, the structural variable $STRUCTURE2$ is significantly different from zero and has a positive sign. It is apparent that countries with an increasing share of unspecialized and large-scale retailers attract more direct investments from abroad than countries with a lower share of non-specialized shops. This result implies that FDI becomes more likely in a country when customers are already used to modern retail

formats, indicating that consumers value the advantages of unspecialized and large retail stores like one-stop shopping and the regular price discounts these stores offer.

Table 12. Determinants of Foreign Direct Investment in the Retailing Sector of Eight European Countries Including Four Transition Economies, 1996-2003^{a)}

| Dependent Variable | Model 1: Stock of <i>FDI</i> normalized with <i>GDP</i> (<i>FDI</i> _{Stock} / <i>GDP</i>) | Model 2: Stock of <i>FDI</i> normalized with <i>GDP</i> (<i>FDI</i> _{Stock} / <i>GDP</i>) | Model 3: Stock of <i>FDI</i> (<i>FDI</i> _{Stock}) | Model 4: Inflows of <i>FDI</i> normalized with <i>GDP</i> (<i>FDI</i> _{Inflow} / <i>GDP</i>) |
|---|--|--|--|---|
| Explanatory variables | | | | |
| <i>STRUCTURE2</i> | 0.5659* (2.50) | 1.1104*** (7.75) | 0.5840* (2.81) | 0.0796 (0.10) |
| (<i>Turnover</i> / <i>GDP</i>) | 0.8617** (3.06) | 1.3902*** (5.52) | 1.3423*** (3.76) | 1.1513 (0.88) |
| (<i>FDI</i> _{Stock, t-1} / <i>GDP</i>) | 0.3783* (2.53) | | 0.2318 (1.48) | |
| (<i>FDI</i> _{Inflow} / <i>GDP</i>) | | | | 20.6164 (0.26) |
| <i>D</i> _{Poland} | 1.0892*** (3.93) | 1.7040*** (12.40) | 2.2762*** (3.98) | 2.1333** (2.81) |
| <i>D</i> _{Hungary} | 0.7531** (3.60) | 1.0054*** (5.65) | 2.5195** (3.23) | 2.4296* (2.32) |
| <i>D</i> _{Slovakia} | 1.5203*** (4.87) | 2.0961*** (16.73) | 4.1480** (3.39) | 3.0252*** (3.53) |
| <i>D</i> _{Germany} | 0.1866 (1.21) | 0.1670 (1.02) | 0.0692 (0.51) | 1.3200 (1.40) |
| <i>D</i> _{France} | -0.2631 (-1.35) | -0.6273** (-3.48) | -0.3366(*) (-1.85) | 0.8535 (0.77) |
| <i>D</i> _{Portugal} | 0.8649** (3.27) | 1.4644*** (10.83) | 2.2997** (3.50) | 1.8124* (2.60) |
| <i>Constant</i> | -2.3726** (-2.94) | -4.0915*** (-7.91) | -10.3680** (-3.02) | -6.0717* (-2.51) |
| \bar{R}^2 | 0.98 | 0.97 | 0.99 | 0.47 |
| <i>n</i> | 30 | 33 | 30 | 30 |

^{a)} Dependent and independent variables are defined in the text. In Model 3, the variables *TURNOVER* and former investment behavior (*FDI*_{t-1}), as well as the dependent variable, are in absolute terms. *t*-values in parentheses. - *** (**, * (*)) statistically significant at the 99.9 %- (99 %-, 95 %-, 90 %-)level.

Source: Author computations.

In each model where the stock of cumulative FDI is used as the dependent variable (Models 1 to 3), the coefficient for turnover is significantly different from zero and, as expected, has a positive sign. Thus, the existence of a large and/or rapidly increasing market in the host country influences the decision where to locate FDI and attracts it to that country.

In Model 1, the positive and statistically significant coefficient for former investment behavior implies that investment decisions are influenced by investment in previous years in the same country. Investment by foreign retailers in the early stages of the transformation process is followed by more intense investment decisions as customers get used to the new retail formats.

All coefficients of the dummy variables except for Germany and France are significantly different from zero and have a positive sign in Model 1. The interpretation of the coefficients for the dummy variables follows the procedure suggested by Halvorsen/Palmquist (1980). Among the CEECs, Slovakia is the most successful in attracting FDI in the retailing and repair sector. *Ceteris paribus*, the FDI share of GDP in Slovakia is 35.7% higher than the reference country Italy, followed by Poland with 19.7%. These results imply that country characteristics matter in the investment decision, too, even after taking structural indicator differences into account. Cultural as well as geographical proximity to the most important investing countries Germany and France might explain why Poland attracts more foreign direct investment than Hungary. The high attractiveness of Slovakia as host country for direct investment from abroad is in line with results concerning the retail transformation in CEECs reported by Dries, Reardon and Swinnen (2004). They show that Slovakia outperforms Poland and Hungary in terms of their shares of modern retail (supermarkets, hypermarkets and discount stores) and achieves more retail sales of foreign food per urban resident than Poland.

5. SUMMARY AND CONCLUSIONS

Major trends in Poland's food retailing are described and analyzed in this chapter. Structural change in grocery retailing has been particularly rapid given the transformation from a socialist to a market economy. In the first half of the 1990s, the number of stores increased sharply due to deregulation. In particular, the number of very small stores grew and then declined again, but nevertheless remained at a much higher level than under socialism. A parallel boom occurred in the case of large retail outlets, in particular hypermarkets and supermarkets. This development raised the overall sales area in Poland's retailing sector and was driven by high FDI from major European food-retailing chains. Thus, the Polish food-retailing system is characterized by a dual structure of small "other shops" and the growing proportion of large store types in the style of Western Europe. This development has been accompanied by increasing concentration ratios of returns per unit of sales area.

Some findings on FDI in Poland's retailing sector are striking. FDI in food retailing as a proportion of FDI in total retailing is very high, and major investors like Metro and Tesco ranked among the top 10 foreign investors in Poland. As in the case of the food trade, FDI in food retailing is almost exclusively intra-EU.

A more detailed analysis of the determinants of foreign direct investment in eight European countries—including Poland—yields several interesting results. The FDI stock in the retailing sector can be explained very well across countries and over time. As a percentage of GDP, FDI stocks are determined by the size of the retailing sector measured,

as a percentage of GDP, by a structural indicator of the retailing sector expressing the ratio between non-specialized and specialized stores, and by structural differences across countries. In all model specifications, the structural indicator is significantly different from zero and has a positive sign, indicating that countries with a more modern retailing structure attract more FDI than countries with a more traditional structure.

Ceteris paribus, Poland attracted more FDI—normalized with the GDP—than all other countries except Slovakia. On the other hand, the more traditional retailing structure in Poland hampered inward FDI compared with some other European Countries like Germany or France and—among the CEECs—Hungary and Slovakia.

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