# The Rapid Rise of Supermarkets in Central and Eastern Europe: Implications for the Agrifood Sector and Rural Development[1]

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**Abstract.** Under the communist regime, consumers in Central and Eastern Europe bought most of their food in state-run retail shops and cooperatives as well as some fresh foods in private shops and green-markets. During the transition period in the 1990s, the retail sector was privatized, and some domestic-capital supermarket chains gradually emerged. In the late 1990s and 2000s massive inflows of foreign direct investment in retail and competitive domestic investments pushed a rapid takeoff of large format modern retail sector development. For example, in what we term "first wave" countries such as Poland, Czech Republic, and Hungary, the supermarket sector went from a tiny "luxury" niche of around 5% of food retail in the mid 1990s to 40-50% by 2003; in the "second wave" countries such as Bulgaria and Croatia, the share is now 20-40%, and in the "third wave" countries such as Russia, it is now only 5% but, as in the other countries, growing very fast. In most of the countries there is rapid multi-nationalization and consolidation of the supermarket sector. Moreover, the food product procurement systems of supermarkets differ substantially from those of traditional retail, whether state or private. The changes in procurement systems include: (1) a shift from local store-by-store procurement to nationally centralized big distribution centers; (2) an incipient shift to regionalization of procurement over countries; (3) a shift from the use of traditional brokers to new specialized/dedicated wholesalers; (4) increasing local use of global multinational logistics firms; (5) a shift to preferred supplier systems; (6) a shift to high private standards of quality and safety. These changes change the conditions facing farmers, creating important opportunities and challenges. The paper ends with a review of policy options and a research agenda.

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1

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# 1. Introduction

Recent studies have shown a meteoric rise of supermarkets in Latin America in only the past decade, moving from a minor niche to the majority of the food retail sector (Reardon and Berdegué, 2002; Reardon et al., 2003a). The studies show that the rise of supermarkets had a profound effect on agrifood systems via several important changes in the organization and institutions of the food system, including centralization of procurement from farmers, decline of traditional wholesale systems, and the rise of demanding private standards for product quality and safety. The supply-side implications of these changes are emerging: these changes took a great toll on smaller and under-capitalized producers unable to meet the new requirements, with the result of exclusion of many small producers, in addition to the creation of new local dynamic markets for local farmers (Reardon and Berdegué, 2002).

That leads to the question of whether Central and Eastern Europe (CEE) might be experiencing a profound and rapid retail transformation similar in scope and speed to that of Latin America, but perhaps different in its path, nature, and implications for suppliers and rural development. There is growing evidence that a similar supermarket revolution is recently occurring in CEE, which started in countries such as Poland, Hungary, and the Czech Republic and is rapidly spreading East and South. The trade press, such as the CIES Food Business News which is the news arm of the largest retailer and food supplier association in the world (CIES The Food Business Forum), has in the past few years been reporting intense activity of major international retailers setting up shop in the CEE region.

However, there has been little research to date on this retail transformation or its consequences for the agrifood sector. For the past decade, there has been much study on how various aspects of the supply side (such as land reform, farm restructuring, rural credit problems, and market institutions) have affected the post-transition path of development of agriculture in CEE (see Lerman, Csaki and Feder, 2004; and Rozelle and Swinnen, 2004 for an overview). There have been several studies of how pre-transition conditions, combined with land and factor market transitions, affected the development of the processing sector in several countries (Gow and Swinnen, 1998; Walkenhorst, 2000; Dries and Swinnen, 2004a). However, there has been very little analysis on the retail system, and no analysis at all of how pre-transition conditions in the retail sector (the "tail that wags the dog" of the agrifood system) conditioned the development path of the retail sector after the transition, and in turn how the latter, combined with the post-transition conditions of factor markets plus processing sector change, determined the conditions now faced by farmers in the region.

To address this gap, this paper explores: (1) the extent, speed, and nature of the retail transformation in the CEE region; this includes diffusion of "modern, large-scale format stores" such as supermarkets, hypermarkets, cash&carry, and discount stores, all of which we shall lump for simplicity under the term "supermarkets" unless distinction is needed; (2) the organizational and institutional changes in food product procurement systems of supermarkets in the region, with a particular focus on horticultural products as illustrative; (3) hypothesized implications of this procurement system change, which represents a change in the wholesale sector faced by farmers, on farmers and food firms in the region.

We expect the latter to be important, which makes then this subject important to policymakers engaged in farm and food policy as well as rural development programs. Governments in the region are developing new rural strategies to help farmers and food processors cope with the deep change on the factor market side as well as with increased competition in an integrated European and global market. Yet a rapid transformation of the domestic retail sector – and thus the buyers these farms and firms face - including the deep organization and institutional change this brings, is likely to reinforce this process through a consolidation of buyers demanding large volumes and consistent deliveries over the year, and very demanding quality and safety standards. While much of the policy debate has focused on trade issues, the impact of international forces may be stronger and more radical through the rapid rise in the CEE itself of supermarkets chains that tend to set the conditions in the agrifood system internationally. To put this in perspective, note that in Latin America, supermarkets in Latin America already buy 2.5 times more fresh fruits and vegetables (FFV) than are exported from Latin America!. That is, studies are showing that in other developing regions, the effect of local supermarkets on local producers far exceeds the effects of trade regime changes on farmers (Reardon et al. 2003).. This might be the case in CEE too.

We have observed that three stages structure the path of change in the retail sector in the region, and we use those stages to structure the paper. The first stage is the pre-transition period, roughly pre-1990, where in most of the countries the State played an important role in the retail sector, combined in some countries with a significant parallel retail sector that was private, informal, and small-scale. The second stage is the early transition period where the prior system was changed, often via privatization (ownership change) without fundamental change in the distribution (concentration of ownership or location pattern) and format (small versus large) of the retail stores. The third stage is the "globalization period" that started in some CEE countries in the second half of the 1990s and is on strong today. In this stage, supermarkets emerged or rose rapidly relative to their modest development before this stage, with a proliferation of formats (the emergence of a variety of large format stores, including hypermarkets, discount stores, cash & carry, as well as small-format chain convenience stores), in addition to deep changes in the procurement systems of supermarkets (such as the establishment of centralized buying and distribution centers, shifts from traditional brokers to use of new, specialized/dedicated wholesalers, to use of private standards, and generally the decline of traditional wholesale systems).

The paper proceeds as follows, informed by the above discussion of stages. Section 2 discusses retail system change over the three stages. Section 3 analyzes procurement system changes associated with the retail changes. The last section discusses implications for the supply side (farms and firms), with policy implications and an agenda for extending this preliminary research.

The sources of information used for this study were limited by the fact that governments in the region have not yet put in place systematic tracking systems for the retail sector or their procurement systems. At most there are counts of numbers of stores. This is somewhat like counting the number of farms to be able to describe an agricultural system. The reason for the dearth of official data is doubtless the suddenness of the change in that sector, and an under-appreciation (which we note around the world) of the centrality of retail sector decisions for the conditions of the entire agrifood system. Hence, we have relied on articles in the retail trade press and several private sector consultant analyses, as well as rapid reconnaissance work in several countries selected as "polar cases" from which to construct an image of the potential spectrum of answers to our questions. These cases include Croatia, Czech Republic, Slovakia, and Poland, in May-July 2003.

## 2. The Transformation of the Retail Systems in the CEE Countries

### 2.1. Phases and Waves of Retail Transformation

The transformation of the CEE retail system can be separated into three phases. The first phase – which we refer to as the "*Communist period*" -- is the period before the start of the reforms. The second period -- which we refer to as the "*Transition period*" – is the first period of transition when major reforms, including privatization and market liberalization took place. The third period – which we refer to as the "*Globalization period*" is later in the transition when major investments in the retail sector by multinationals take place.

Table 1 summarizes the key characteristics of the retail system in the three phases of transition. In the next sections we discuss these characteristics in more detail. However, before starting, it may be important to emphasize that all CEE countries have gone through the same three phases, but that the countries have varied significantly in how fast they have gone from one stage to the next. There is much documentation on when various countries implemented certain reforms, although much less specific on the retail sector. However, all CEE countries started the transition phase between 1989 and 1991. There is much more variation in the next phases. As we will explain below, some countries have entered the globalization phase in 1996, while others did not enter this phase until 2002 or later. Below, we will document several "waves" of countries progressing more or less simultaneously in the retail transformation stages. For example, countries such as the Czech Republic, Hungary, and Poland are "first wave countries" in terms of retail transformation, starting the globalization period around 1996. Balkan countries such as Croatia, Romania, and Bulgaria are part of a second wave, where retail globalization started in the late 1990s. In a third wave of countries, including Russia and Ukraine, retail globalization did not really start until 2002 (see Table 2).

### 2.2. Retail Systems Before the Transition

The retail system before the transition varies among the CEE countries. Two distinctly different models, which are illustrated in Figure 1, are the "centralized/State" approach and the "decentralized/State-private mixed" approach. Most of the countries followed the more centralized/State approach where retail and wholesale entities were mainly state-owned or cooperative companies and were organized as geographic monopolies, with little or no competition among institutions (Nowak, 1991; Seitz, 1992). Privately owned companies played only a minor role (Seitz, 1992; Henry and Voltaire, 1995).

An example of the "centralized/state" model is that of the former Czechoslovakia. Before the transition, the State operated a centralized retail and procurement system. The retail sector was fully formal - no informal retail was allowed. Most food sales took place in State enterprises (zdroj) whose shops were either broad line food shops or fresh fruits and vegetables (FFV) shops. Besides the State enterprises, an important share of the food distribution was done via consumer cooperatives (jednota) and through State-owned department stores (prior). The consumer cooperatives were mainly in urban marginal or rural areas; thus, the cooperatives were more concentrated in what would become Slovakia than in what would become Czech Republic. The retail sector consisted of a mix of small supermarkets and small shops in urban areas, and small shops and cooperatives' sales outlets in rural areas.

Countries with an important private or at least mixed component in the retail system were Hungary, Poland, and the former Yugoslavia. For example, Croatia, as part of the former Yugoslavia, represented the "Decentralized/State-Private Mixed" system before the transition. The State-owned chains of small-format stores, based in the various regions, sold mainly dry/processed products with only very small sections of FFV (and other fresh food). Private small shops operated in a parallel retail market. FFV was mainly retailed via green-markets in city, town, and village squares.

### 2.3. The Transition Stage: Privatization and Domestic Food Retail System Restructuring

In the early stages of transition, there was an initial retail privatization. This was generally associated with the breakdown of the highly concentrated State system into separate units that soon started to merge and form many small private retail chains. For example, in Bulgaria, the number of retail outlets tripled between 1990 and 2003, with the fastest proliferation in the early transition phase. The number leapt from 15,000 to 44,000 between 1990 and 1995.

In the ensuing seven years the number rose from only 3,000 to 47,000 by 2002 (a few years into the globalization phase of Bulgarian retail) (Bushnakova, 2003).

Almost all of the above was with domestic capital; there were very limited retail FDI inflows during this period. In this period, foreign investors encountered obstacles to enter the market due to unclear ownership structures, prohibition to participate in privatization auctions, unclear privatization of state enterprises, unstable macroeconomic situations, and in some cases (such as Croatia) to civil strife and political instability.

The few foreign retail chains that did enter the market did so by buying existing, newly privatized retail chains; for example, in 1991, in the Czech retail sector, Ahold (Netherlands) entered by buying the Mana chain, Delvita (Belgium) by buying the Sama chain of small supermarkets, and Tesco (UK) entered Czech Republic and Slovakia in 1996 by buying the former Prior department stores. There was as yet no move in this incipient multinational presence to diversify formats beyond supermarkets into hypermarkets or discount stores (as would happen in the next phase), or to move beyond the main cities into smaller cities or rural towns, again, as would happen in the next phase; non-metropolitan areas were still served by small shops, small new private chains, consumer cooperatives, and public plaza markets/bazaars, depending on the country.

This is not to say that the emergent domestic capital chains did not begin to invest and grow – they merely did so on a very limited scale relative to what they would do, in competition with foreigners, in the next phase. For example, Konzum, one among many privatized chains in the early 1990s, grew quickly past its fellow chains during this period, moving from only small shops to add a small supermarket format by the mid 1990s and several large supermarkets by the end of the 1990s in Zagreb, forming a capitalization base from which it then jumped to nationwide coverage in the globalization phase in the early 2000s.

## 2.4. The Globalization Stage of Retail System Development in the CEE Region

This stage started at various times (from the mid/late 1990s to present) depending on the country (categorized by income level and stage of reforms), but the globalization stage had several characteristics in common over the countries: (1) extensive investments by foreign retail chains and the rapid rise of the modern retail sector, hence multinationalization; (2) the application in developing regions of the global "retail transformation model"(Reardon et al. 2003); (3) a dramatic rise in the retail sector share of supermarkets (in the broad sense we use this term); (4) inter-country as well as intra-country supermarket diffusion; (5) concentration in the supermarket sector; and (6) important changes in procurement systems that then affect farmers. We discuss further 1-5 in this section and then (6) in section 3.

***The Rise of the modern retail sector.*** Figure 2 illustrates how the share of the modern retail sector (supermarkets, hypermarkets and discount stores) in total retail grew rapidly in the Czech Republic, Slovakia, and Croatia, although starting at different times. Data in Table 2 and Figure 3 show how the average share of modern retail in total retail went from 40% to 49% in first wave countries from 1999 to 2002, a mere three years; in the second wave countries the share jumped from 9 to 24% in that period, and from negligible to 1-2% in the third wave countries. This shows that the modern retail sector in first wave and second wave countries is already approaching one-half (converging with South America that had been about this transformation for the whole 1990s) and one-third of total retail after only a few years of blindingly fast retail system transformation.

***Multinationalization.*** A very striking characteristic of the supermarket sector in most of the CEE countries is rapid multinationalization in only the past five years. Several indices illustrate this.

First, using 2002 data, we calculate[2] that foreign supermarkets have \$22 billion of sales per year in the region (20 of the 22 were in the countries in Table 2, the rest was mainly in Latvia/Estonia/Lithuania). To form an idea of what this magnitude represents, it is roughly the equivalent of the sales of 550 hypermarkets at 40 million dollars a year each in sales, or the equivalent of 11,000 small/medium supermarkets at two million dollars of sales each. It is typical for about 70% of a supermarket's sales to be of food, so this means that foreign retailers sell about \$15 billion of food products, most of them from farms and firms in the region, to local consumers – a large impact on the food system just from foreign retailers.

Second, there is a great diversity of multinational retailers that have undertaken FDI in the region, for 13 countries (foremost among which are Germany, France, the UK, and the Netherlands in terms of weight of FDI).[3] Figures 4 and 5 give an overview of the number of supermarket and hypermarket outlets of the main foreign retail chains in CEE. The motives for the entry of retailing multinationals in CEE include the fact that Western Europe offers fairly saturated, low growth markets in which most countries have planning restrictions on further out-of-town retail development while the CEE retail sectors offered initially soft local competition, higher mark-ups on food, less constraining local planning, and growing markets (see e.g. Dawson, 2001).

Third, M&M Planet Retail (2001) presents a list of the "top 35 countries" in terms of multinationals' presence in their retail sectors. All four of the "first wave" countries figure in this list. For reference, France number is number 1 with 14 international retailers present;

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[2] We used data on the number and type of large-format chain stores belonging to foreign chains in of the Balkans and central and eastern Europe, from CIES The Food Business Forum (2003) for 2002, and made rough calculations of approximate sales by these stores (using representative per-store sales figures for the different formats, such as supermarkets and hypermarkets, taken from data sources for several CEE countries).

[3] The foreign chains include: (1) Julius Meinl, Spar (Austria); (2) Delhaize (Belgium); (3) Kesko (Finland); (4) Ahold (Netherlands); (5) Auchan, Carrefour, Casino, Cora, Intermarché, Leclerc (France); (6) Edeka, Globus, Kaufland, Lidl, Metro AG, Rewe, Tengelmann (Germany); (7) Dansk (Denmark); (8) ICA (Sweden); (9) IGA (US); (10) Migros Turk (Turkey); (11) Reitan (Norway); (12) Tesco (UK); (13) IperCoop (Italy).

Poland is number 2 with 13 international chains; UK is number 7; Czech Republic is number 12 with 10 foreign chains; Hungary is 18, with 7 foreign chains, and Slovakia is tied with the same levels. Note that several other foreign chains have entered these countries since 2001, so these are even underestimates.

Figures 6 and 7 give an idea of the degree of multinationalization of the retail sector in Slovakia and the Czech Republic. The share of foreign-owned retail chains in the 50 main companies in the sector is 80% in the Czech Republic. As with the sudden shift in the concentration index, we find again that multinationalization really took off in 1997 in the Czech Republic, while this happened only in 2000 in Slovakia and 2001 in Croatia. In 2001, foreign-owned retailers account for slightly more than 40% of total turnover of the 50 biggest retail companies in Slovakia. The share of foreign owned companies in total retail is about 35% in the Czech Republic, while it is only 10% in Slovakia. Given that supermarkets account for about 40% of retail, and FDI is nearly only in the supermarket sector, that means that about 70% and 20% of the supermarket sectors in the Czech Republic and Slovakia are multinationalized, respectively. That implies that one would expect further multinationalization in Slovakia, but mere consolidation over chains in the Czech Republic.

This does not mean, however, that all the major retail players are foreign in the CEE. That is, while foreign chains tend to be the top players in the first wave countries, in others, such as Slovakia (perched between first and second waves in terms of timing of entering globalization), Croatia, and Russia all have as the top chains domestic chains.

Moreover, underlying the 2002 patterns of FDI-based sales over countries shown in Table 2, is a dynamic of diffusion of FDI over CEE countries over the past five-seven years that is interesting and relatively consistent. In the beginning of each round of FDI, firms (that are not global multinationals) from neighboring first-wave or developed countries retail chains move into a country due to their advantage over domestic chains (usually) and lack of initial presence of global multinationals. Examples include Finnish and Turkish retailers into Estonia and Russia, Slovenian and Austrian into Croatia, Czech into Slovakia, and Hungarian into Romania, and so on. After that, the global multinationals move in, first into the first wave countries, such as Ahold then Carrefour then Tesco into Poland, Czech Republic, then Hungary, then they move into second wave countries (recently Metro into Croatia) and finally establish (only this year or last) footholds in the third wave countries (Metro into Russia). Foreign retailers tended to find a relative “saturation point” that provided an impulse to spread regionally while at the same time in a more competitive environment started to acquire domestic firms and push out weaker foreign competitors. Hence, retailers have an “anchor” strategy where they implant first and deepest in the best prospect first-wave country and then set up their procurement systems for the region and move into other countries, as discussed in Section 3. These patterns of the spread of foreign retailers are similar to those in the mid/late 1990s in Latin America (Reardon and Berdegué, 2002).

***Spread to Secondary Cities and then Small Towns.*** In the same way that foreign chains extend from “heated up competition” in relatively modern-retail-saturated countries to less-saturated countries in the region, the same is recently occurring within the countries, both from large cities to smaller cities and towns, and from richer neighborhoods to middle to lower income neighborhoods. Again, this is happening first and fastest in first wave countries 2-3 years ago, second countries in the past year or two, and just starting in third wave countries. This is extending the effect of the supermarket revolution into the food markets of the poor, and into the countryside. This clashes with the conventional view in the region that supermarkets are just a “big-city phenomenon” and a middle class trend. Many retail chains want to be the first hypermarket in a small town, effectively locking out competition as there is only a market for one major store.

Several examples are telling. In Croatia, Konzum started in Zagreb and then in 2001 moved to Split on the coast (acquiring Euroviba) and in 2003 moved to Osijek in the eastern interior (acquiring Alastor). Alastor itself, a dominant chain in the grain-belt Osijek, had expanded over Osijek in the late 1990s and then into intermediate cities and then smaller towns around Osijek in the first several years of the 2000s. The penetration went as far as relatively small towns such as Dakovo (20k population). In Czech Republic, Delvita has entered a relatively small town of 15k. This contrasts with the pre-transition policy of locating supermarkets only in large towns. Summing up the motivation for such moves, Ahold-Poland was cited as explaining "Given the strong international competition in the Polish market, Ahold is now planning to target smaller towns with populations of 50,000 - 70,000." (CIES The Food Business Forum, 22 November, 2001).

***Emerging Consolidation.*** While the retail sector was very concentrated – but mainly public sector – before the transition, then highly de-concentrated with privatization and the proliferation of retailers in the 1990s, there is emerging evidence of a reconcentration – but this time private-sector and multinationalized. This is thus a "U" shaped pattern of concentration over time.

The degree of concentration in the supermarket sector is not clearly correlated with the degree of development of the sector (share in total retail). In Poland, in 2001, the top 5 chains had 48% of the supermarket sector; this is doubtless higher today after the Tesco acquisition of the Hit chain in 2002 (Business Analysts and Advisors, 2003). In the Czech Republic, the figure is 70%; in Bulgaria, around 90%, and in Croatia, around 60% in 2002, but only 25% in Slovakia. There are several reasons for the ambiguity in the correlation between supermarket market share in retail and top 5 share in the supermarket sector: (1) in some second wave countries, the investments of a few chains in the past few years suddenly swamped the emerging supermarket sector; these can be foreign chains, such as Metro, Billa, and Bonjour (Cyprus) in Bulgaria, or these can be mainly domestic chains, such as Konzum's spectacular increase in share in the Croatian market in the past 2-3 years, or Perekriostok in Russia; (2) In some countries, such as Poland and Slovakia, a relatively large number of foreign competitors (most with "deep pockets") entered in the past few years and the "shake-out" is only now starting with large-scale acquisitions among them.

We expect a series of acquisitions and mergers that will concentrate these supermarket sectors quickly over the next 3-4 years and there are signs that this is already proceeding apace. PolandRetail.com (2003) notes that in November, Ahold sold two hypermarkets to Carrefour. This is one of many recent examples of internecine struggle and acquisition among global and global and regional retailers in the past few years in the region.

There are several weapons in the competition. Among the most important are the organizational and institutional changes in procurement that are discussed in the next section. The other is format diversification – away from small to large supermarkets, and into hypermarkets, discount stores, hard discounts, and convenience stores, to increase a chain's coverage of the market, drive down prices and drive up product diversity (itself an opportunity for food suppliers), and thus increase market share. Format diversification is in fact usually a sign that a supermarket sector is maturing. It takes "deep pockets" to be able to make investments in giant hypermarkets, and these have been mainly the reserve of foreign chains. Figure 8 shows how the number of hypermarkets in the Czech Republic has increased rapidly from two to over 100 since 1996. Figure 9 shows that the share of hypermarkets in the total modern retail sector (including also supermarkets and discount stores) is almost 45% in the Czech Republic and near to 30% in Slovakia. First wave countries tend to be already, over the past 2-3 years, heavily "hypermarketized", but this is only just beginning in second wave countries. Given the relative homogeneity of urban share across the CEE regions, we expect that this trend will continue.

### 2.5. Determinants of the Waves of Retail Transformation

What drove this "supermarket revolution" and why has it occurred at different rates in the different sets of countries of the CEE region. Reardon et al. (2003a) present a model of the diffusion of supermarkets in developing countries as a system of demand (for supermarket services by consumers), and supply of these services. Demand is driven by incentives and capacities of consumers. Demand-side incentives include: (1) urbanization, with the concomitant increase in the opportunity cost of women's time; and (2) reduction of effective food prices for consumers because of supermarket chain's mass procurement and efficient merchandising. Demand-side capacity variables include: (1) per capita income growth increasing the demand for processed foods which is the usual entry point for supermarkets; and (2) growing access to refrigerators, cars, and bus transport. The supply-side of supermarket diffusion in developing countries was driven very substantially by an avalanche of European and US retail investment driven by FDI liberalization plus the factors above, in the 1990s and 2000s.

These factors also determine supermarket diffusion and multinationalization in the CEE countries. This can be inferred from the data in Table 2. Table 2 presents for countries in the CEE region, country characteristics, the share of supermarket (supermarkets, hypermarkets, and large-format discount stores) sales in total retail, and an indicator of the importance of foreign investment in food retail (proxied by the food sales of foreign retailers in those countries in 2002). Several points stand out.

Table 2 suggests a pattern of three "waves" of sets of countries in the march of the diffusion of supermarkets, mirroring three levels of penetration of supermarkets in retail noted above. The patterns follow the "supermarket diffusion model" above from both demand and supply sides of supermarket services – that is, to a large extent there is a general correlation between, on the one hand, the level and the rise in the share of supermarkets in total retail, the multinationalization/globalization of the retail sector of a country, and on the other hand, the per capita income, and the "reform index" as calculated by the EBRD.

The reform index measures the extent of institutional and economic reforms and market liberalization in the process of transition from a centrally planned economy to a market economy, with the index between 0 and 4 and increasing in the extent of reforms. As illustrated by Figure 11, there is a strong positive correlation between the extent of reforms and the growth of the modern retail sector. Moreover the figure suggests that there appears to be a minimum level of reforms which is needed before retail investments are being made - but that once beyond this minimum level of reforms, the modern retail sector grows exponentially with further reforms. Figure 10 indicates a strong positive relationship with the income level of the country. In combination, both factors explain why there are important differences between the countries both domestic and foreign investment in supermarkets. With reforms and income levels differing between countries, the starting point of retail FDI, and thus the beginning of the globalization phase of the retail sector, thus differed significantly over countries – mid/late 1990s in the first wave countries, circa 2000 in the second wave countries, and just in 2002 in the third wave countries. The average income and the transition index decline as one goes from the first to the third wave sets of countries. These retail-side finding goes along with fact that the great bulk of overall FDI in the CEE region has concentrated in the first-wave countries (EBRD, 2003).

Note that a weak link to the diffusion model is the role of extra-income socioeconomic determinants. Most of the countries regardless of the "wave" category are relatively highly urbanized (the second wave countries are a bit less than the first wave), with a high share of women in the workforce (not differing much from male participation). These two expected determinants do not have much explanatory power in this region over countries simply because they vary little.

Moreover, particularly striking is the impact of liberalization reforms on supermarket diffusion in situations where the socioeconomic context (such as incomes and urbanization) had created latent demand for supermarkets but that they only "took off" once the reforms (and accompanying general economic climate) favored such investments. One sees this for example in Croatia, which had no supermarkets until 1996, then very slow domestic supermarket development until the denouement of political crisis and instability by the late 1990s, then retail foreign investment starting only in 2001, and a rapid rise in domestic as well as foreign chains thereafter in very intense competition. That brought the Croatian supermarket sector from lagging far behind the front-runners in the first wave to a point of essential convergence with them at around 45% of food retailing. Another example is Slovakia, which lagged behind other first-wave countries until the end of the 1990s when the fall of the Meciar government led to important policy changes and improvements in the investment climate.

The speed and extent of reforms are not the only extra-socioeconomic factors that can delay or speed supermarket diffusion, all else equal. Beliakov and Noble (2003) noted that there are a number of other site-specific constraints to retail in Russia at present: shortage of suitable retail properties: "the difficulty of getting access to land and necessary permits; unavailability of long-term leases; underdeveloped supply infrastructure; huge distances between major urban centers; shortage of qualified retail staff" (page 10).

### 2.6. The Future: Convergence?

The convergence of reforms and the spread of FDI (and competitive domestic investment) in particular over the first and second wave countries and starting in the third, gives rise to the observed tendency toward convergence of retail systems over countries reflected in the "catching up" by lagging first wave (Slovakia) and second wave (Croatia) countries in supermarket growth so that the share of supermarkets in food retail starts to come to the 40-50% range in half of the study countries by now. For example, within Central Europe, there was greater divergence in patterns at the start of the globalization period than there is now, so there was a convergence over the period. For instance, Figure 2 shows how the market share of the modern retail sector has changed since 1998 in the Czech Republic and Slovakia, followed by Croatia. It is evident that the changes started in the Czech Republic earlier than in Slovakia but as can be seen, a remarkable convergence occurred in the past few years.

There is considerable emerging evidence that forces are afoot for third-wave countries to move toward convergence with the retail structures of the other parts of the region in the near future. At present only 10% of the Russian retail sector is dominated by supermarkets (split equally between Russian and foreign operators) (RetailPoland.com, January 4, 2004). But there is impetus for rapid future growth in the sector, evidenced by the entry of a global multinational retailer (Metro)[4] and regional multinationals (e.g., Ramenka of Turkey[5]) into Russia in the past 1-2 years, and the major investments being undertaken at present by the main domestic chains (such as Perestriostok and Sedmoi Kontinent).[6]

[4] CIES The Food Business Forum News of the Day, February 5, 2004, notes: "Metro said on Thursday that it would invest US$70 million in building two hypermarkets in Moscow … with a view to opening them at the end of this year or at the beginning of 2005. The group operates seven cash & carry stores in Moscow and St Petersburg and is due to add a further eight this year."

[5] Namnews (2002): Turkish Ramenka, which owns the Ramstore supermarket chain, plans to invest U.S. $100 million in Ramstore in 2003 in 10 more stores in Russia, bringing the total number of Ramstore shops in Russia to 254, Prime Tass reports.

[6] CIES The Food Business Forum News of the Day, February 4 (2004), notes: "Leading Russian supermarket operators Perekriostok and Sedmoi Kontinent have announced plans to invest further in their store networks, according to local press reports. Perekriostok has agreed on a US$75 million credit facility from a group of foreign banks. The retailer said that the finance would support store openings in Moscow and other cities. Perekriostok currently operates 46 outlets in Moscow and St Petersburg. Sedmoi, meanwhile, said that it would open 25 stores this year, including its first hypermarket. The retailer reported a 48% rise in sales to US$445 million for 2003."

## 3. Food Retail Procurement System Evolution in CEE

Over the decade between the start of transition in CEE and the thick of globalization of the food industry in the early 2000s, there were major changes in the product procurement systems of the retail sector. These together constitute a major transformation of the wholesale sector, and thus the market conditions, facing farmers. In this section we discuss those changes. The scope of this paper does not permit a full treatment over countries and products, and so illustrations will be given mainly from the case countries discussed above in order to have parallel structure in our discussion of retail and retail procurement systems - to wit, Croatia, Czech Republic, Poland, and Slovakia. Moreover, we mainly focus on FFV (fresh fruits and vegetables).

Note two things with respect to the analysis and illustrations. First, supermarkets tend to penetrate FFV retail markets and make changes in their FFV procurement systems more slowly than for other products such as processed/packaged products that lend themselves more easily to the kinds of changes discussed below; thus, our examples from the FFV sector are the "floor" of change, meaning that one can be assured that the procurement systems for other products have gone through similar changes but faster/earlier. Second, our discussion below is centered on the actions of the leading supermarket/hypermarket chains in "first wave" countries, such as Czech Republic and Poland, that have experienced the earliest and/or fastest retail transformation, and the "second wave" countries such as Slovakia and Croatia. The "third wave countries" such as the poorer Central and Eastern European countries are only now entering the globalization phase of retailing and we posit that they can expect to see similar changes in retail procurement.  One tends to find that the frontrunners set the pace for procurement system change and we observe that the medium and small chains, and retail systems in countries behind the frontrunners, follow suit as their capacity permits, as the retail transformation occurs.

### 3.1. Procurement Systems under Communism

The food product procurement systems before the transition reflected the degree of centralization, collectivization, and formality of the retail sector in each CEE country (see Figure 1).[7] Hence, for example in Czechoslovakia, where retail was centralized (in urban areas, in State retail enterprises), collectivized (in rural areas, in consumer cooperatives), and formal (no informal retailing was allowed in urban or rural areas) – the procurement system was the mirror reflection of those characteristics. There was a centralized procurement company managed by the State; it operated distribution centers (DCs) in the different regions of the country, distributing to urban state retail enterprises and rural retail cooperatives alike.

By contrast, for example, as Croatia had a retail system that combined elements of the above centralized/collectivized/formal system with a rather large parallel private market (green markets and small shops). The procurement system of the retail sector was three-pronged. First, since the early 1950s, state chains had regional DCs as the chains themselves were for the most part regionalized. The DCs were mainly for processed products. Second, since the early 1980s, agrokombinats (large agricultural production and marketing SOEs) had opened retail outlets that primarily relied on procurement from their own production (such as *Podravka* with processed vegetables, or *Voce* and *Dona*, vegetable production agrokombinats). Third, state retail chains had very little if any fresh produce; most of this was sold through private green markets (*trznice*) and small shops; these private entities plus the state stores procured fresh fruits and vegetables (FFV) from informal "truck markets," run by traditional wholesalers who brought produce from surrounding rural areas and directly from farmers delivering and selling in the green markets. Some brokers brought in a limited

[7] The distinction between the food retail chain between Czechoslovakia (Czech Republic; Slovakia) and former Yugoslavia (Croatia) can be further extended to the farm level. In Czechoslovakia the vast majority of food was produced on large scale collective and state farms, while in former Yugoslavia, farming was mostly on small-scale private farms. Small-scale private farming continues to dominate agricultural production in Croatia, while in the Czech Republic and Slovakia agriculture is now dominated by large scale private farms.

quantity and assortment of imported products such as tropical produce and apples from other socialist countries.

### 3.2. Procurement Systems during Transition

The first half decade of the 1990s brought the dismantlement of the state-run and collectivized components of the retail procurement system in the region. This happened most quickly and completely in centralized retailing systems in the more developed economies of the region, such as in Czechoslovakia, where privatization meant the immediate sell-off of the centralized procurement system to private wholesalers at the same time as the break-up of state-retailing. The dismantlement occurred with a lag in the second and third wave countries.

Hence, over the 1990s there was a proliferation of private food product general-line (by which here we mean not dedicated to one type of client or market niche, but potentially with product specialization such as in produce) wholesalers in the region to replace progressively the state- and collective- managed wholesale functions. By 1999 in Poland for example, there were five nationwide wholesale networks (exclusively owned either by foreign capital or by partnerships of foreign and domestic companies), five purchasing groups, 60 regional wholesale networks (holding a 30% share of the wholesale market), and 14,000 local wholesale company warehouses (mainly family businesses).

The new general-line wholesalers bulked produce bought from a variety of sources, including cooperatives and individual farmers. In countries such as Poland or Croatia, this meant aggregating over many small farmers. These new private wholesalers established DCs and truck fleets, and collected from farms and delivered to the remnant state-owned chains, the new private chains, and even to the green markets and small shops, beginning to displace the truck markets. Because the FFV production base in many of the countries was narrow in terms of product diversity and seasonality, and with low productivity and quality, and with high transaction costs and risk, many of the new wholesalers placed great emphasis on importing FFV to supply the local market – in particular bananas and citrus and stone fruit from international markets. At the same time, some started small outgrower schemes to assure a domestic production base. Gradually, toward the middle to end of the 1990s, many of these wholesalers began including the emerging supermarkets among their clients.

For example, in Croatia, general-line wholesalers Bili Commerce and Vrni, both based in the coastal FFV production zones, began to serve the newly privatized chains such as Diona and also provided FFV to the military operations. Bili for example focused mainly on the newly privatized Diona and Konzum chains of small stores, and on importing for UN peace-keeping forces. Moreover, some regional wholesalers cum outgrower schemes emerged to mainly supply green markets and small store chains, such as Vesna in Osijek, who started as a small wholesaler and then grew into a major wholesaler in that region gradually shifting from a general FFV wholesaler supplying the gamut of retailers to becoming a specialized/dedicated wholesaler focused on the Alastor and later the Konzum chain; thus Vesna was an early entrant into the new breed of wholesalers that would become dominant in the globalization period. Finally, several major FFV suppliers themselves became wholesalers as well, as in the case of Fragaria, an apple supplier that gradually increased its wholesaler and outgrower-management functions. An important role also began to be played by the newly privatized or emergent processing firms, some of which created their own distribution channels.

### 3.3. Procurement System Evolution under Globalization

The transformation of the retail sector in this phase was facilitated by a deep transformation of the procurement systems of retail chains. The changes in the procurement system were determined on the one hand by t+he incentives of the competition increase in the retail sector with the emergence of chains of large format stores and substantial FDI. This created the need to reduce costs and have consistent volumes and standardized products, and to increase quality and product differentiation to gain merchandising advantage. On the other hand it increased the capacity to change the organization and technology of the procurement system based on greater volumes moved, and technology transfer from foreign retail chains.

Important to the initiation of the procurement system changes was a widespread feeling among retailers interviewed that the new general-line wholesalers that emerged in the early/mid 1990s did not add up to an adequate procurement system for the supermarket chains, in particular once retail competition sharply increased with globalization. They felt that the "old system" even after transition could not deliver the required quality, and there were high transaction costs and foregone margins when supermarkets had to rely on them.

To respond to the need felt by the chains for alternatives to the existing wholesale system, and to pursue competition strategies of lowering costs while raising quality, leading supermarket/hypermarket chains in the CEE region have been shifting over the past few years toward the use of a new procurement system characterized by six key pillars: (1) shift toward centralized procurement systems; (2) shift toward cross-border procurement systems; (3) shift toward specialized/dedicated wholesalers; (4) use of global logistics multinationals to quickly improve procurement systems; (5) shift toward preferred supplier systems; (6) shift toward adding private standards.

We note that these shifts have been undertaken by the "leading chains" both within a given country, and over countries. One finds earliest these six shifts in what we termed the "first wave" countries, and therein among the leading chains, but with a clear tendency observed for the second wave countries and smaller chains to follow suit as soon as they are able, driven by the same incentives.

***Shift Toward Centralized Procurement Systems.*** There has been a marked and recent tendency to shift from per-store procurement to a centralized system (usually a central buying office for a general category like FFV and then one to several distribution centers (DCs) over the country to handle product movement).

This is done in order to reduce coordination costs, generate economies of scale buying in larger volumes, work with fewer wholesalers and suppliers per unit merchandized, and have tighter control over product consistency in meeting standards. Typically chains make this move when they reach a certain volume threshold where it becomes markedly more efficient to shift to DC(s). Moreover, typically a chain moves from a DC for a zone to a DC or set of linked DCs for a country in order to source over the country and get the cheapest and best quality products by having a larger supplier pool from which to choose.

Several cases illustrate this development. Ahold Poland operates over 180 outlets in Poland, in two store formats - Hypernova (hypermarkets) and Albert (supermarkets) – all of which are supplied via five DCs (in Bielsko-Biała, Poznań, Tarnów, Będzin, and Piotrków Trybunalski) (www.ahold.com.pl). The latter is 22,000 m2, built in 2002, and was the largest in the country in 2002. (Supermarket News, no 74, 13 June 2002). Also, Tesco opened a 40,000 m2 DC in Teresin for the distribution of all processed/packaged food for all its Poland stores on January 6, 2004 (as it sells about 1.5 billion dollars of products, and about half, say 750 million, is food, this means that roughly one-half billion dollars of processed/packaged food products are centralized in procurement and distribution in this new large DC. It is now building a second, for fresh food (www.Polandretail.com January 12, 2004). In the Czech Republic, Ahold opened its first DC for FFV in 2001 and opened a second one in 2002. Delvita was operating a DC already by 1995, and recently opened a second. Tesco is building its first DC in the Czech Republic end 2003. Kaufland has a DC. However, not all leading chains have enough stores yet to warrant DCs: for example, Carrefour has its suppliers deliver directly to the hypermarkets; or, Globus (Germany) relies on specialized/dedicated wholesalers (Hortim, Vis, and Ceroz) to deliver to their stores; this new type of wholesaler, dedicated to supermarkets, are discussed more below. Slovakia is a few years behind in these developments but moving in the same direction. Whereas Ahold, Delvita, and Tesco have no DCs in Slovakia yet, Tesco opened its first DC in Slovakia end 2003, as will Kaufland in 2004.

Croatia is a "second wave" country in supermarket development, but chains are moving very recently and very rapidly toward DCs induced by the competition brought by heavy FDI by foreign retailers starting in 2000/01. Konzum, the leading chain and of domestic capital, opened the largest DC in the former Yugoslav region in 2000, and has since rapidly left behind its system of small warehouses and per-store deliveries to use a set of DCs over the main regions with coordinated, centralized procurement from Zagreb. Metro (Germany) built a large DC in October 2003. Billa had planned to wait until it had 20 stores in Croatia before building a DC, but because of competitors' moves it has cut in half the waiting time and in 2003 built a large DC. By contrast, and this illustrates the mechanisms that increasingly differentiate the competitiveness of dominant and secondary chains, CBA (the consortium of small, independent supermarket chains) noted that they are at a severe competitive disadvantage by not yet having a system of DCs.

Finally, this shift to DCs is even beginning in third wave countries, such as Russia. An example is Perekriostok, with 46 stores in St Petersburg and Moscow (www.perekriostok.com.ru). Pyatyorochka*,* Russia's largest supermarket chain, founded in 1999 and with 150 stores in St Petersburg and Moscow and 20 franchisees in smaller cities, has also moved in the past year to use of a DC in St Petersburg (and soon in Moscow) to drive down costs, in particular against the informal market and in the context of suddenly escalating foreign competition from Turkish, German, and French chains that have entered in the past 1-2 years (www.e5.ru ).

***Shift Toward Cross-Border Procurement Systems.*** The logical extension which is now being taken by various chains in the CEE region is to move to cross-border sourcing – coordinating procurement over a chain's DCs in the set of countries in which it operates. These systems allow the procurement of the cheapest and best quality products from the various countries. This extends the set of suppliers available to the chain, and magnifies the advantages of a DC system noted above. This process is related to EU accession, which increases opportunities for post-accession cross-border procurement.

Central Europe, home of the "first wave" of retail transformation, is also the cradle of regionalization of procurement. Ahold announced in October 2002 the formation of Ahold Central Europe (ACE), an integration of its operations in Poland, Czech Republic, and Slovakia undertaken over 2003. ACE is based in the Czech Republic, and merges "backroom functions" such as product procurement and administration for 400 Albert supermarkets and Hypernova hypermarkets in Central Europe with combined 2001 sales of approximately Euro 1.3 billion. The daily merchandising operations are managed by the local units (Ahold Newsletter, 2002). This integration is organized by category, so that there is an "ACE Fresh" for FFV procurement. Tesco, now the leading retailer in Central Europe, with 153 stores (53 Hungary, 66 Poland, 17 Czech Republic, 17 Slovakia) has its administrative headquarters in Prague, although FFV procurement is still organized on a national level. Kaufland is building DCs in Slovakia and Poland (and already has one in the Czech Republic). Once the DCs are operational, importing products from Poland into Slovakia for example will also be simplified and suppliers that are delivering to the DC in Poland will also be used to supply the Slovakian market.

Moreover, to facilitate this integration, wholesalers from a given country are "expanding with" the expanding retailer in order to continue to service it over the countries in a region. This has also been observed in Latin America and Asia (Reardon et al 2003b). For example, some wholesalers that had agreements with retail chains in the Czech Republic expanded their businesses to Slovakia once the supermarkets they serviced in Czech Republic entered Slovakia. Ceroz – established in 1991 and now the biggest Czech wholesaler in FFV, owning 8 DCs in that country – has built three DCs in Slovakia since 1998 because the foreign retail chains that were expanding their operations from the Czech Republic into Slovakia wanted to deal with the same suppliers with which they already had a business relationship.

The first glimmers of such regionalization of procurement are starting in the "second wave" countries. In Southeastern Europe (the Balkans), Metro is setting up a Southeast Europe Business Unit that will serve the Metro stores in the Balkans sourcing from several countries (personal communication, Mr. Robert Kuhta, FFV Purchaser Metro, Croatia, July 2003).

***Shift Toward Specialized/Dedicated Wholesalers.*** The leading chains are shifting from traditional wholesalers and even from new general-line wholesalers to "specialized/dedicated wholesalers" that are specialized in a product category and dedicated to supplying supermarkets. That means that the wholesaler is more responsive to quality, safety, and consistency requirements of supermarkets than are traditional wholesalers who aggregate products over many producers and qualities with little capacity for segregation.

Sometimes these new firms are external to the retail company, but sometimes they are in the same holding company. There appears to be a tendency for the former to shift to the latter in the following sequence. First, a private wholesaler emerges in the early transition period, and increasingly augments the share of its business from supermarket chains. Second, the wholesaler shifts to having the majority of its business from a handful of chains; at the same time, it adds services such as packaging and quality control that it did not do as a "traditional wholesaler." Sometimes these services are merely transport for purchases made directly by the supermarket chain.[8] In our interviews we found that these were considered to be "entry fees" to get the business of the retailer. Third, the now specialized/dedicated wholesaler moves from mainly buying on the spot market or from a list of customary suppliers, to starting outgrower schemes where it contracts production that meets the specific grades and standards of the retail chain. It does that both to forestall the retailer entering into direct relations with producers and bypassing it, and because it needs to undertake these schemes to meet product quality and safety requirements (more on that below). Fourth, the retail chain acquires or enters in a joint venture with the wholesale firm. Acquisition has the advantage of control, exclusivity so that it also "captures" a supplier base, and making the wholesaler a profit center. These steps are illustrated for the case of Croatia below.

In Croatia, newly formed wholesalers after the transition, with outgrower schemes (that also completed with imports off-season or for products not available in Croatia or available but not enough) expanded rapidly and shifted their focus from other markets to the supermarket-market. Sometimes these were already dedicated to one or more chains; the wholesaler/outgrower then shifted in the past several years from mainly selling to green-markets and chains of small stores, to selling to supermarket chains. That was the case of the outgrower schemes Vesna in Osijek (focused on Alastor), DAD in Neretva (focused on Konzum), and to a certain extent also for the "new wholesalers" who had emerged in the earlier eras (Bili). The first two, Vesna and DAD (in the two main vegetable production zones of Croatia), were mainly outgrower schemes that then added wholesale schemes to be "one-stop-shopping" for the chains. In the case of both of these, the leading chain (Konzum) acquired them (in 2003 and 2002 respectively). Moreover, there was rapid expansion of suppliers such as Fragaria or Vrni or Lipovac who mainly had their own production and who had then recently substantially added outgrowers to increase volume and also had added more

[8] E.g., bananas from Latin America that are delivered in the port of Antwerp and have to be transported to the Czech Republic or tomatoes that need to get from Spain to Slovakia.

wholesaling functions and value added operations. Hence, these supplier-wholesalers shifted toward specializing in supermarkets and adding volume and assortment so that they could be one-stop shopping for supermarkets at least in several categories per wholesaler. All three of these grew very quickly; the largest of them, Lipovac with a farm near Osijek and a distribution center near Zagreb, grew from 300 to 3,000 ha of outgrowers in only the past three years. Vrni started in 1996 with 3 ha of its own production, 10% of the output of which it sold to supermarkets. Over the past 6 years it then added 68 ha of outgrowers, and it sells 70% of its output to supermarkets.

***Use of Global Logistics Multinationals.*** Moreover, a related trend is for leading chains, in particular in the "first wave" countries, to use the services of (either in a joint venture or a business alliance) global multinational logistics firms. Thus large retailers induce a rapid transfer of world-class logistics technology into the local wholesale sector – basically suddenly creating a dualistic system between the have's and have-not's of these services. This allows the leading chains to reduce their costs, become yet more competitive, further distance themselves from weaker local chains, and accelerate the consolidation process. This is similar to what leading chains are doing in Latin America and Asia (Reardon et al., 2003b). In December 1999, UK's Tibbett & Britten-Hungary entered into a logistics partnership with UK's Tesco (Hungary's biggest hypermarket chain operator). In April 2003, Tesco signed an agreement with the U.S.-based global multinational ProLogis for lease of a large (26k m2) ProLogis DCs in the Czech Republic. The press release is revealing of the symbiosis between multinational retail and logistics firms in entering emerging markets, and the role that the advantage of regional presence plays:

> "We were looking for a very quick solution to achieve our distribution goals. ProLogis provided a well-suited facility in a very timely and professional manner," said Mark Champagne, supply chain and distribution director for Tesco. 'We look forward to working with ProLogis in the Czech Republic and throughout Central Europe.' 'ProLogis is pleased to be working with Tesco as the company builds its presence in the Czech Republic,' said Hans van Luijken, first vice president of

> Central Europe for ProLogis. 'ProLogis Park Prague is a prime example of our goal to establish a presence in the key distribution hubs throughout Europe … as we continue to serve our local and global customers in Central Europe.' … ProLogis is a leading provider of distribution facilities and services with 226.7 million square feet (21.1 million square meters) in 1,728 distribution facilities owned, managed and under development in 67 markets in North America, Europe and Japan." PR Newswire, 2003.

***Shift Toward Preferred Supplier Systems.*** The leading chains are shifting toward "direct" purchase from growers. We qualify "direct" in that most often this procurement channel is managed by the specialized/dedicated wholesaler as a "preferred supplier program." As noted above, however, most of these wholesalers have been absorbed into the retail firms or are in joint ventures.

This is done in order to select producers capable of meeting quality and safety standards of the supermarkets and thus lower transaction costs for the chain both by lower search costs and by reducing the number of suppliers per unit sold. The retailer or the wholesaler acting on its behalf then provides incentives (negative and positive) to meet the retailers requirements – such as via implicit or implicit contracts, lower risk, and sometimes price premia, as well as resolution of certain idiosyncratic factor market failures facing the producers – such as the chain's providing evidence to banks of the existence of a contract so as to serve as a collateral substitute for producers.

In Croatia, the largest chains began recently to acquire the specialized wholesalers in order to have their own "preferred supplier" program and accomplish three goals. (1) They cut out the margins of the middleman (this was emphasized as a key goal by the retailers, such as Konzum and Metro.) Konzum acquired DAD (by far the largest outgrower scheme in the coastal fruit and vegetable areas) and then Vesna (ditto, but in the Slavonia area) in the past year in order to gain control of the supply channels. (2) The chains sought to obtain the quality they want and begin to cut procurement costs to increase profit rates and also increase year-round consistency so that there are fewer breaks in the supply over the year. (3) The chains wanted to greatly increase the volume of throughput, and via outgrower schemes controlled by them, to vastly increase local production. This was needed to fuel the immense increase in FFV sales that they sought and succeeded in accomplishing. For example, Konzum went from 70 to 400 million kuna of FFV sales in the past two years! The dominant retail chains also rapidly began to supply FFV to food service companies such as restaurants and hotels that formerly were almost exclusively supplied by the specialized wholesalers.

The preferred supplier programs of Konzum (DAD, Vesna/Fructus) emphasized grower upgrading with greenhouses and irrigation as key. The chain seeks to reduce the sharp seasonality of production (a major problem revealed in all the interviews) and increase product quality. Konzum and Metro have the deep pockets needed to guarantee loans for capital investment of their outgrowers, to acquire greenhouses and irrigation. This is an example of a retailer resolving idiosyncratic market failure, as most growers lack the needed collateral to obtain bank loans. Competitors such as Bili and Vrni emphasized that this puts other wholesalers at a steep disadvantage in the present situation of strong competition for good local growers and market share.

The upshot is that the leading chains in Croatia (Konzum, Metro) are very rapidly shifting or have shifted already toward a preferred supplier system managed by their specialized/dedicated wholesalers, and have rapidly and drastically reduced their use of the types of general-line wholesalers that had emerged during transition. By so doing, these retailers' procurement organization has now many elements in common with a number of leading chains in Western Europe and the U.S. Smaller chains in Croatia are obliged to follow suit (hence there is a diffusion of procurement technology change across the retail sector), with small chains such as Tommy Supermarkets on the coast just now starting preferred supplier systems with dedicated wholesalers managing them.

***Shift Toward Private Safety and Quality Standards.*** Leading chains are shifting toward higher quality and increasingly safe product through private standards imposed on suppliers. There are several reasons for this, as revealed in our interviews: (1) higher product quality and safety are being used to woo consumers, as competitive arms against the remaining small shops and markets; (2) standardization reduces costs and allows more efficiency of product flow in the procurement system; (3) an important reason is to bring the attributes of local supply into conformity with private standards of European retailers, several of whom are also the leading chains in CEE (such as Tesco, Ahold, Carrefour, Metro); (4) centralized purchase (with better monitoring ability), qualified specialized wholesalers, and preferred supplier programs of selected producers, raises the capacity of retailers to apply higher standards than is possible buying from general-line wholesalers who buy from and sell to a wide variety of firms;[9] (5) in general, public food regulations for the domestic market, whether they exist or not, are not easily enforced by governments in the region, so private standards and private enforcement are the main way that food safety at retail outlets is imposed at least at present. In turn, large retailers are easy targets for liability should a problem be experienced by a consumer.

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[9] The shift to DCs often also intensifies the control on quality and sometimes even increases quality requirements. For example, for the moment Tesco employs one person who performs quality controls in all Tesco stores in Slovakia. Once the DC will open at the end of the year, Tesco will employ six people charged with quality controls. Kaufland Slovakia will turn around its quality policy completely once the DC is established. At this moment, Kaufland puts all delivered products (even non-calibrated) on the shelves. Products that are not sold at the end of the day, for example because they are of too low quality, are simply returned to the supplier. In the DC, all delivered products will have to be 1st class, sorted and calibrated and low quality products will be returned immediately. Furthermore, the delivered products will need to have at least a minimum shelf life. At this moment suppliers deliver products to the Kaufland shops twice a day. This makes that fresh products can be offered throughout the day even if certain local varieties of tomatoes for instance barely keep for a whole day. From next year onwards, suppliers will not be delivering twice a day anymore so the products have to keep fresh for a longer time.

Food safety requirements for FFV production for the domestic market differ from country to country, with little variation between different retail chains. In the Czech Republic, public requirements are stricter than they are in Slovakia. For example, HACCP certification is officially obliged for producers of FFV and storage facilities. In Slovakia it is not yet and the private retail chains do not require it either. Also private initiatives concerning food safety requirements are more advanced in the Czech Republic than in Slovakia as we found some evidence that retail chains are trying to communicate food safety issues to their customers. For example, there exists an integrated fruit production label (SISPO) that was introduced by the Czech Union of Fruit Growers. Almost all interviewed supermarket chains indicated that they prefer to buy SISPO labeled fruit and the label is clearly identifiable on the shelves. At the moment integrated fruit production is still only a small share of total Czech fruit production but retail chains made it clear that in the future they will move to buying only SISPO labeled fruit on the domestic market. This could have important consequences at the production level because certain investments are necessary to become SISPO certified and for the moment mainly the larger and the better producers have switched from conventional to integrated production. However, apart from the controls performed on the SISPO producers by experts of the Union of Fruit Growers, and random sample checks by the public food agency on products in storage rooms and on the shelves of supermarkets, there are no controls on production practices and pesticide residues for local products that are sold in supermarkets. Both in the Czech Republic and Slovakia there exists a public BIO label for organically grown FFV. However, in neither country do the supermarkets adopt this label because customers are not willing to pay a higher price for these types of products.

## 4. Implications for Agricultural Producers, Rural Development, and Policy

Supermarkets and strong foreign retail chains are rapidly entering and taking over food retailing in Central and Eastern Europe. Supermarkets' procurement practices and requirements are an important challenge for farmers and supply chains in the region. As this process has started relatively recently, there are no studies on the impact so far, and the discussion here is to some extent speculative. Our analysis draws on insights from other regions, while identifying a series of specific CEE characteristics which will affect the impact.

A key concern is that the supermarket revolution will push a large share of farmers, and in particular small farmers, out of the market as they may find it hard to "make the grade" and sell to supermarkets. While at this point there is no systematic evidence on this, studies from other parts of the world, in particular emerging markets in Latin America, suggest that these pressures may be real and important (Reardon and Berdegué, 2002, Berdegué et al. 2003). The reason that in particularly small farmers are said to lose out is because of two reasons. First, there is an important fixed transaction cost component in costs of exchanges between farms and retailers, making it more costly for retailers to deal with many small farmers than with a few largers suppliers. Second, small farmers are often more constrained in their financial means for making necessary investments, either because they do not have sufficient own resources or because they have problems accessing external funds in imperfect rural financial markets.

Clearly the above are important challenges, which we should take very seriously. For example, Reardon et al. (2003c) found in several case studies in Croatia that specialized wholesalers and supermarkets' preferred supplier programs tend to work with the (relatively) large FFV producers in the main produce regions, and tend to eschew smaller producers if they have alternatives, for the reasons noted above.

However, one can also identify several factors which suggest that the impact of the supermarket revolution on farmers, including small farmers, may be less dramatic in some contexts, and may even have positive effects in Central and Eastern Europe; and even more so for rural development.

First, the effects documented in this paper are especially relevant for suppliers of FFV. This is an important group of producers[10], but most farm produce, including milk, grains, sugar, etc., is processed before it reaches the retail sector. The impact of the supermarket revolution on these farms will be indirect in the sense that supermarket development is affecting the food processing/manufacturing sector, which in turn affects farmers.[11] The results of this "chain rule" set of effects may be more similar to that of foreign investors taking over dairy or sugar processing plants (see Dries and Swinnen, 2004a, 2004b; and Gow, et al., 2001; for case studies).

Second, in several countries farm output is dominated by larger farming companies -- typically privatized state and collective farms. This holds in particular for countries such as Slovakia and the Czech Republic where the vast majority of agricultural land is used by large farming companies. In other countries, such as Poland or Croatia, small farms dominate. Moreover, within a country the importance of farm organizations typically differs significantly among subsectors (eg grains versus dairy), reflecting economies of scale. Hence

[10] The fruit and vegetables (incl. potatoes) sector accounts for 15% of total crop output in the Czech Republic (CSU, 2004). Similarly, while fruits and vegetables occupied merely 4% of total agricultural area in Hungary in 2001, sales of F&V made up 18% of total agricultural sales (Kopint-Datorg Rt, 2004). Market shares of F&V were not readily available for the case of Poland but the importance of this agricultural subsector is shown by the fact that 50% (or 1.5 million) of agricultural holdings are growing potatoes; 20% grow field vegetables and 7% have strawberry production. Furthermore, orchards account for 1.4% of total agricultural area (GUS, 2004). Finally, for Croatia we find that 70% of agricultural households have orchards; 22% have potato production; and 5% grow other vegetables (CROstat, 2004)

[11] A potentially important effect of supermarkets which is not analyzed in this paper is the impact on the food processing sector. In early transition, many CEE countries had food processing companies which produced low quality output, were undercapitalized, and in need of investment and consolidation to survive in a more competitive environment. While much has changed over the past 10 years, several problems continue to characterize food processors. As such, supermarkets may have a strong impact on these companies – much like the direct impact of farms with direct retail-farm exchanges.

the impact of retail changes on suppliers is likely to differ significantly between countries and sectors.

Third, the CEE farming sectors have undergone a dramatic restructuring over the past fifteen years. Besides privatization and the restructuring of the farms, this included a massive outflow of labor from the agricultural sector. In some countries, such as the Czech and Slovak Republics and in Hungary more than 50% of (officially registered) workers in agricultural left the country early on in transition. In other countries this adjustment process has been more gradual, but the effect has also been a strong outflow of farmers and farm workers (Swinnen et al., 2004). This process has continued as investments in the food industry and preparations for EU accession and the need to enhance the competitiveness of the domestic farms have continued pressure for restructuring. In this perspective, the impact of the retail revolution may be a continuation of important agri-food chain restructuring which started fifteen years ago.[12]

Fourth, the farm sector in Central and Eastern Europe is most in need of finance for investments, quality improvements, and access to high value markets. Interestingly, investments by modern retailers and vertical coordination with suppliers may well be of significant assistance in this process. Examples from Central America (Berdegue et al. 2003) and Croatia (Reardon et al. 2003b) document how modern retailers assist their suppliers with credit, inputs, extension services, and even bank loan guarantees to upgrade the suppliers capacities to produce and deliver products of high quality and, increasingly, food safety standards.

[12] The average annual decline in agricultural employment in the first wave countries Hungary, Czech Republic and Poland was -12% in 1989-1992, -6% in 1993-1997, and -4% in 1998-2001 (ILO, 2003).

Preliminary evidence indicates that these assistance packages are especially likely to be provided in markets where there is a shortage of high quality suppliers.[13] This is often the case in transition countries, because: (1) there has traditionally been a serious problem with product quality, (2) financial constraints have limited farms' ability to invest in quality, (3) farm restructuring – and in particularly the shift of collective farms to individual farms – implied loss of managerial capacity, especially for quality output. Hence, such assistance programs may be more likely to be provided in transition countries, and in particularly in those where the market is dominated by small/medium farms – at least when retailers want to source commodities locally. Evidence presented in this paper, and in other studies, suggest that modern retailers do invest in important local sourcing especially of fresh products such as FFV.

Such assistance packages tend to be introduced by multinational retailers. However, competition between retailers for quality suppliers forces other retailers, including local companies, to follow this path in order to maintain a sufficiently large supply base; an example of a lead domestic chain doing this is that of Konzum in Croatia. This is especially important in transition countries where there is typically a shortage of quality supplies.

An important impact of these strategies is on the international competitiveness of the supply chains and, hence, the farms that are able to upgrade to the demands of the modern retailers. This is a major factor in the current process of EU accession and wider international integration. Many experts have pointed out the continuing weaknesses of the CEE agri-food supply chains which have caused the net agri-food trade balance between the EU and the CEE to shift dramatically in favor of the EU over the past 15 years (Swinnen, 2002). The retail investments and the associated supply chain effects could have an

[13] Studies on vertical coordination between food processors and supplying farms find similar strategies and effects (eg. Gow and Swinnen, 2001; Dries and Swinnen, 2004a).

important impact on improving the competitiveness of the CEE supply vis-à-vis their EU competitors in more integrated markets.

As mentioned before there is little systematic evidence so far – and this points to an important need for research in this area. The only study existing on supply chain investments, quality upgrading and small farmers in Eastern Europe is that of Dries and Swinnen (2004a,b) on Polish dairy farmers. Their analysis shows that the impact is generally positive for farmers, also for small farmers, as processors assist them with quality upgrading and investments. The only farmers who lose out are those close to retirement who would have gone out of business anyhow. Most studies of modern supermarket investments in other regions tend to point at opportunities for farmers, but often emphasize the major challenges facing small farmers (Reardon and Berdegué, 2002). However, even these studies show that small and medium farmers can have a future in modern retail chains. For example, a 2003 report on Central America, (Berdegué et al. 2003) documents that 70% of the suppliers for Hortifruti, a highly developed specialized retail FFV supplier in Costa Rica, are small farmers (who passed the selection process and benefited from extended supplier assistance), working via intermediate packers who aggregate supplies, and that this suppliers group has been very stable over the past five years. The same thing occurred in Nicaragua, a poorer country, where the supply chain invested in a system of collection centers in rural areas to collect small and poor farmers' products.

Finally, modern retail investments will not only affect rural suppliers, but will have a wider impact on rural development. This includes improved access of better quality and a wider variety of foods and other products for rural households; and the creation of off-farm employment, directly or indirectly, in the supply chain. Investments in packaging, quality control, extension services etc. are likely to create new jobs in the rural areas; while at the same time the competition from the retail chains will cause traditional shops and retail outlets to close. The supermarkets, as motors of market development, will also generate opportunities for differentiation of products and value added

In summary, the previous arguments lead to the conclusion that retail investments are likely to have important implications for supply chains and rural households in Central and Eastern Europe. It appears that these investments may bring very significant benefits to the region, but could also pose significant threats where inefficient or undercapitalized farmers cannot "make the grade."

It is important for a policy debate to begin on the most effective and appropriate methods for developing "win-win" solutions for retailers and for agrifood producers in the region. The specifics of this debate will vary by country, determined by the agrarian structure, the condition of supply chains, the status of current regulations, whether the country is on the accession list, and so on.

An example of a policy issue that will, however, cross-cut many of the countries is the need to address the challenges that the retail transformation poses for small/medium producers. In situations where small and undercapitalized farms are prevalent, such as in Croatia, Bulgaria, and Poland, governments should be keenly aware that the survival of these farms will be challenged very rapidly by the development of supermarkets. That transition may well be inevitable in the longer run, but a case can be made for the need to assist these small farms to meet the requirements of the transformed retail sector in order to make the impacts more gradual on the rural sector, and even to harnass the market development power of the supermarkets to create opportunities for small farms. This will be challenging in a situation of limited rural credit markets and poor extension services. When upgrading is done of these latter services, attention should be paid to gearing the upgrading to the requirements of the modern retail sector as the dominant client, rather than to the requirements of the declining traditional wholesale and retail sectors.

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**Table 1: Key characteristics of the three phases of the retail transformation**

| *Characteristics* | *Phases* | | |
|---|---|---|---|
| | *Communism* | *Transition* | *Globalization* |
| *Concentration in retail sector* | High | Low | High |
| *Dominant source of capital* | Domestic | Domestic | Foreign |
| *Foreign investment* | - | Brownfield | Greenfield |
| *Share of modern retail* | Low | Low | High |
| *Share of large multinationals* | Low | Low | High |
| *Location of modern retail outlets* | - | Cities | Everywhere |

**Table 2: Waves of retail transformation in CEE**

| Indicators | | First Wave | | | | Second Wave | | | Third Wave | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | CZ | HU | PL | SK | CR | RO | BU | RU | UK |
| *Retail Development* | year | | | | | | | | | |
| % modern retail in total | 1998 | 54 | 46 | 27 | 34 | 19 | 3 | 5 | - | - |
| | 2002 | 55 | 48 | 44 | 49 | 42 | 8 | 23 | 1-2 | <1 |
| Foreign food retail sales per urban resident (USD) | 2002 | 808 | 503 | 302 | 377 | 93 | 64 | 148 | 4 | 2 |
| % income spent in foreign food retailers | 2002 | 14 | 10 | 7 | 8 | 2 | 3 | 8 | 0.2 | 0.3 |
| *Reform & development* | | | | | | | | | | |
| Reform progress EBRD | 1998 | 3.5 | 3.7 | 3.5 | 3.3 | 3.0 | 2.7 | 2.8 | 2.5 | 2.5 |
| | 2002 | 3.4 | 3.7 | 3.5 | 3.3 | 3.5 | 3.1 | 3.3 | 2.9 | 2.7 |
| EU membership | | 2004 | 2004 | 2004 | 2004 | 2007* | 2007* | 2007* | - | - |
| GDP/capita (USD) | 1998 | 5500 | 4600 | 4100 | 4000 | 4800 | 1900 | 1550 | 1800 | 800 |
| | 2002 | 6700 | 6600 | 4900 | 4400 | 5000 | 2100 | 2000 | 2400 | 850 |
| Income category | | Upper middle | Upper middle | Upper middle | Upper middle | Upper middle | Lower middle | Lower middle | Lower middle | Lower middle |
| *Demography* | | | | | | | | | | |
| % urban population | 2002 | 75 | 65 | 63 | 58 | 59 | 56 | 68 | 73 | 68 |
| % females in workforce | 2002 | 64 | 52 | 60 | 63 | 60 | 62 | 71 | 64 | 62 |
| Male/female labor force | 2002 | 1.2 | 1.3 | 1.2 | 1.2 | 1.2 | 1.2 | 1.1 | 1.2 | 1.2 |

Sources: GDP/capita and EBRD reform indicators are from EBRD (1998, 2002, 2003). The modern retail shares come from Shopping Monitor CE (INCOMA Research) and Bushnakova (2003) for Romania. The share of urban population in total, total population, and the shares of the genders in the (outside the home) labor force come from www.UNFPA.org. The sales foreign food retailers are own calculations based on CIES (2003) and USDA/FAS Gain Report(2003).

* expected

**Figure 1 : Concentration of retail and procurement systems**

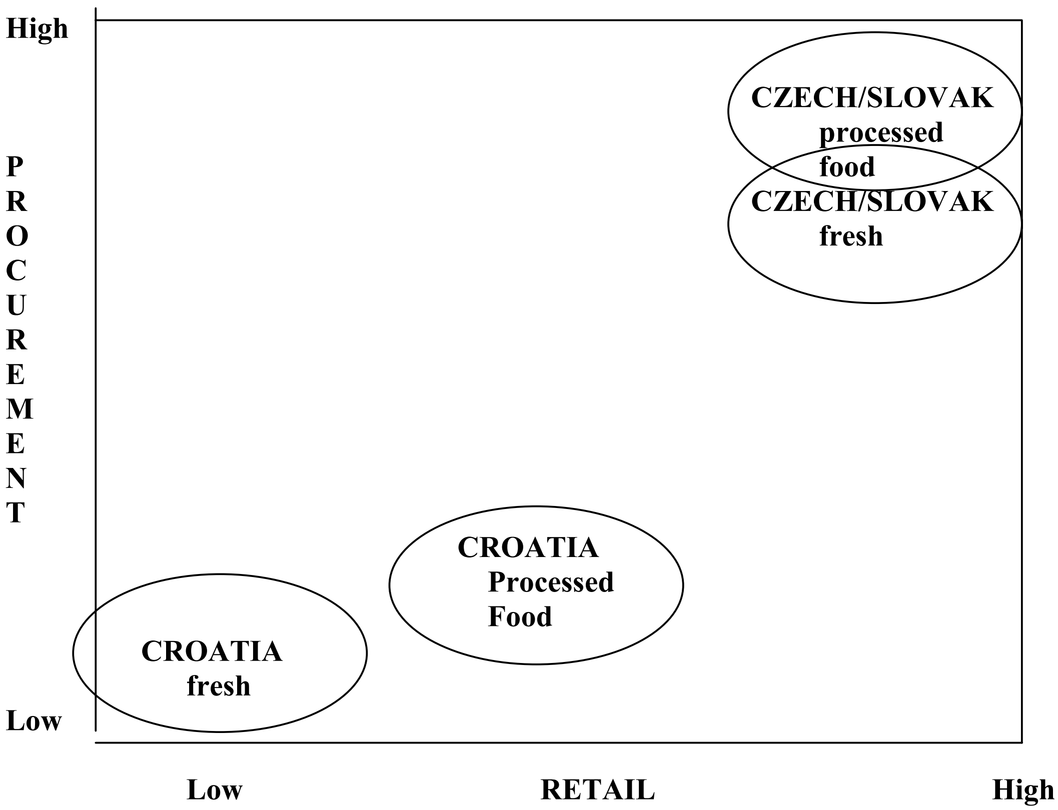
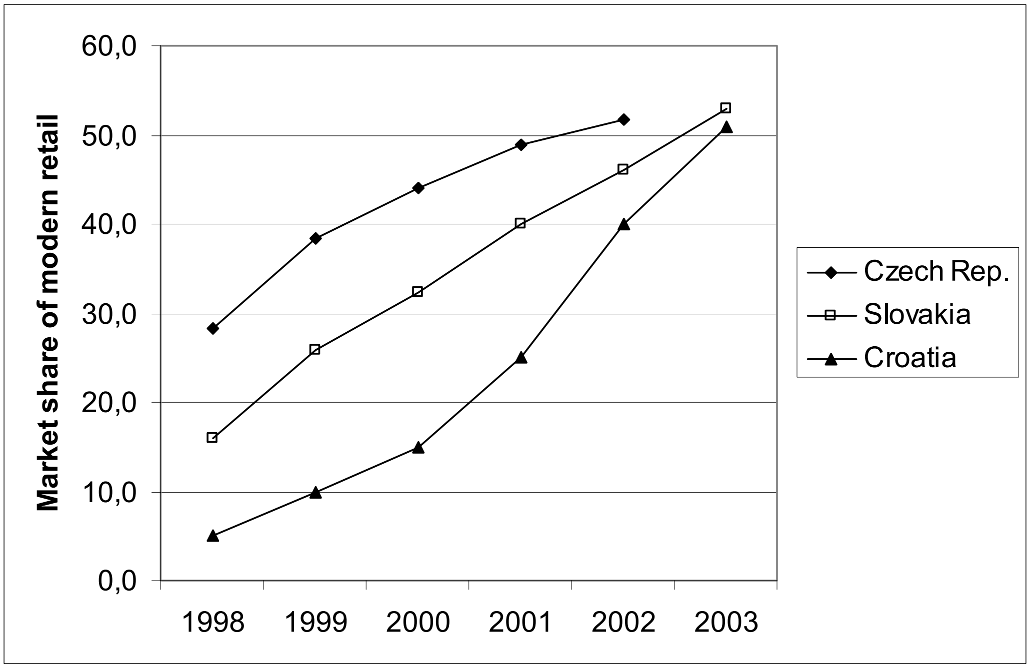
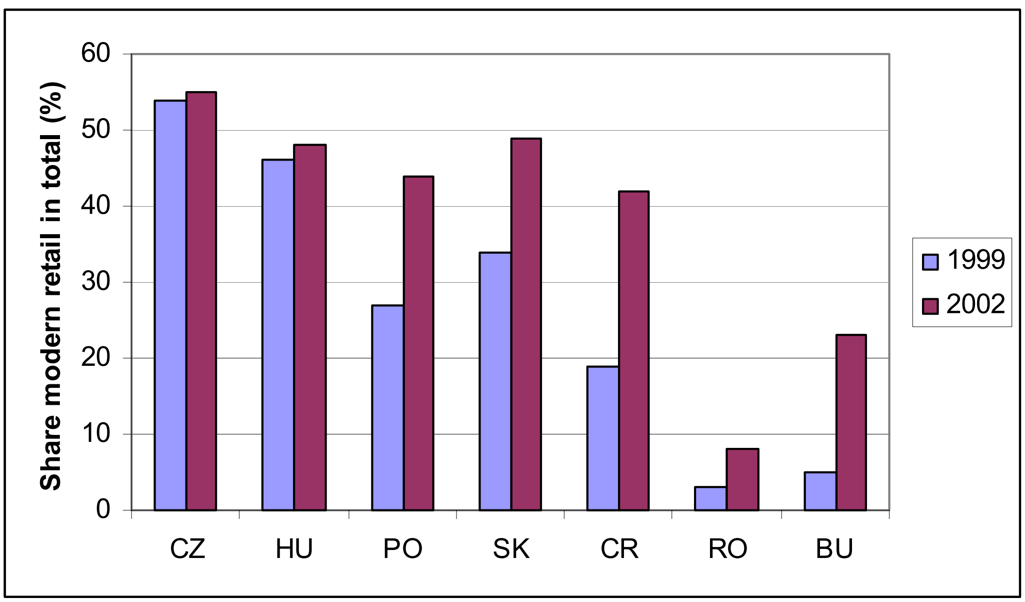


**Figure 2: Change in market share of the modern retail sector***



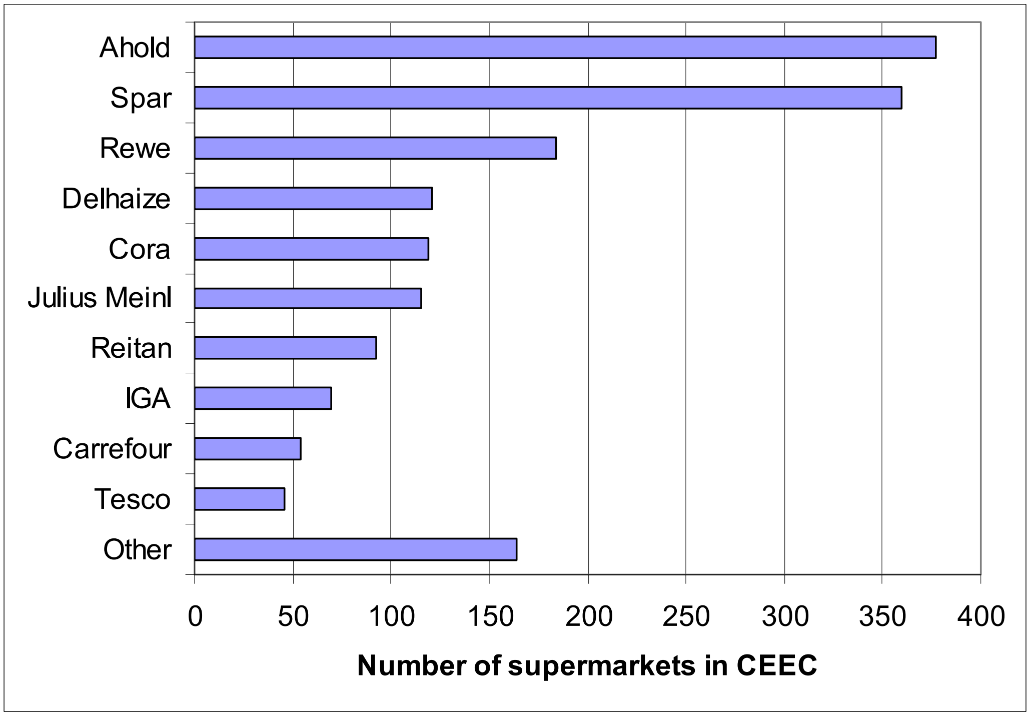

* The modern retail sector comprises hypermarkets, supermarkets, and discount stores
Source for Czech Rep. and Slovakia: Shopping Monitor CE (INCOMA Research)

**Figure 3: Share of the modern retail sector in total retail 1999-2002**



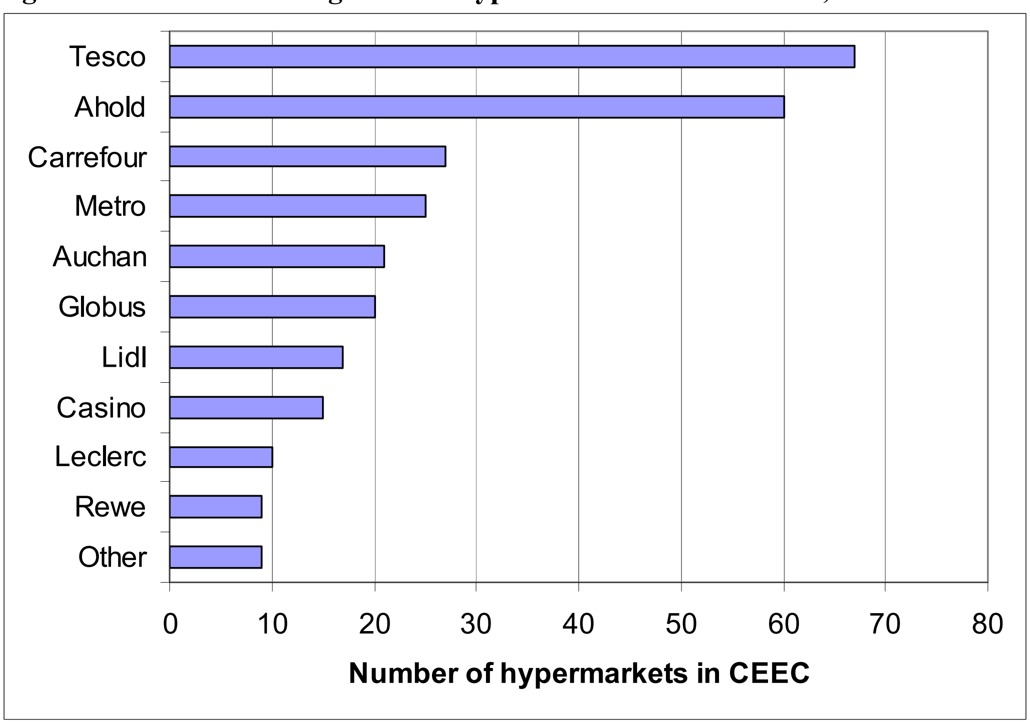

Source: Shopping Monitor CE (INCOMA Research)

**Figure 4: Number of foreign owned supermarket outlets in CEE, 2002**



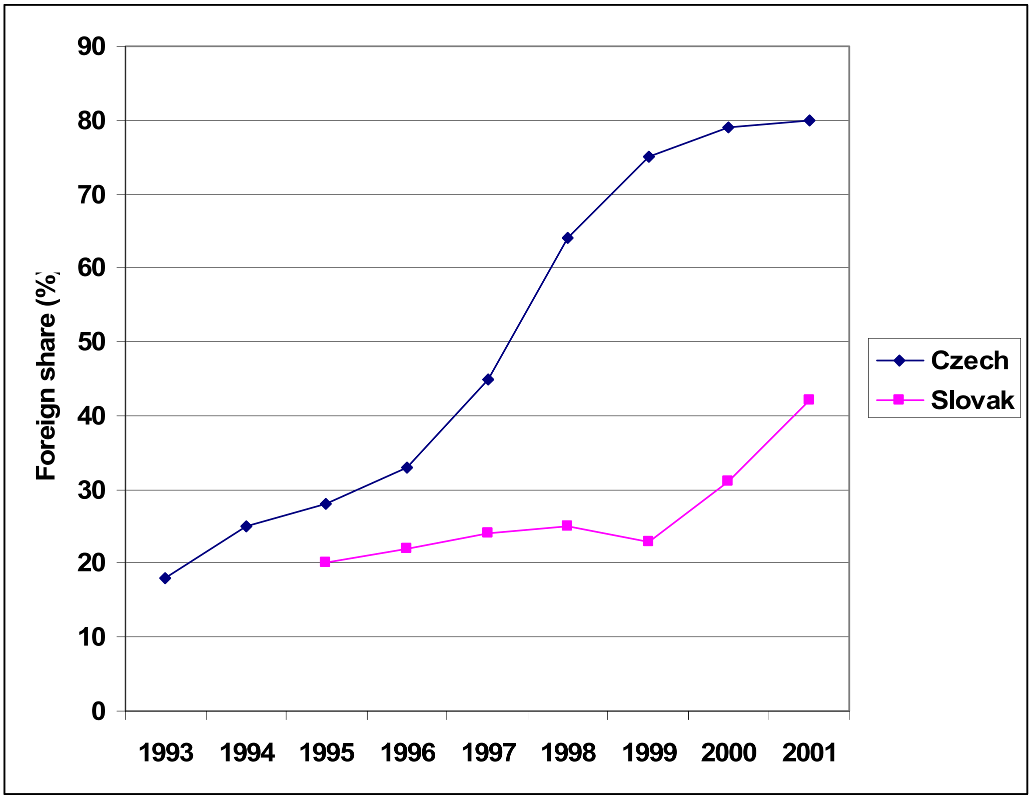

Source: CIES (2003)

**Figure 5: Number of foreign owned hypermarket outlets in CEE, 2002**



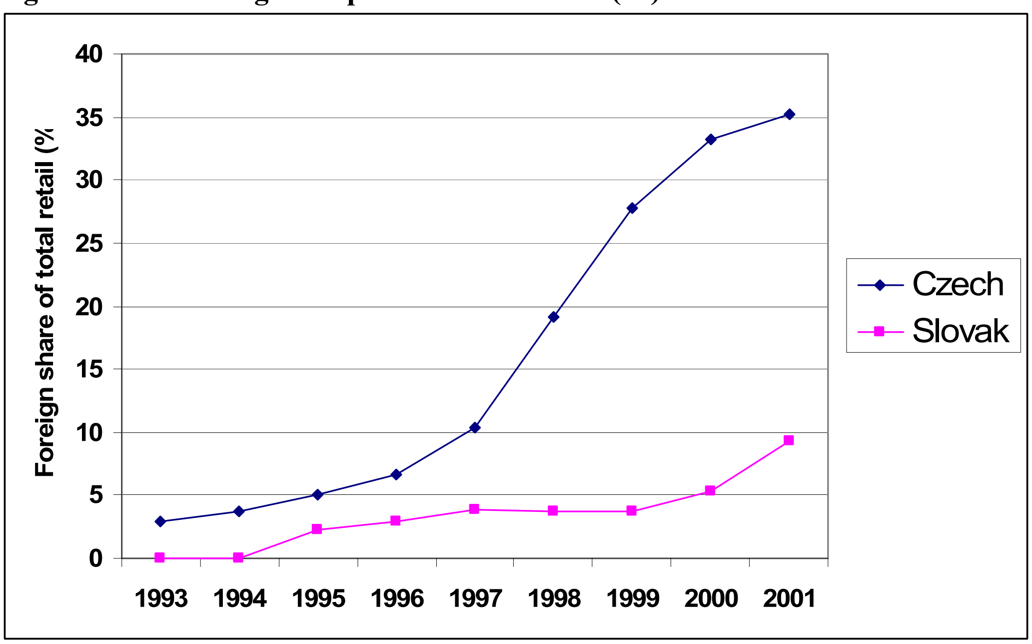

Source: CIES (2003)

**Fig 6: Share of foreign ownership in top 50 retail trade companies (%)**



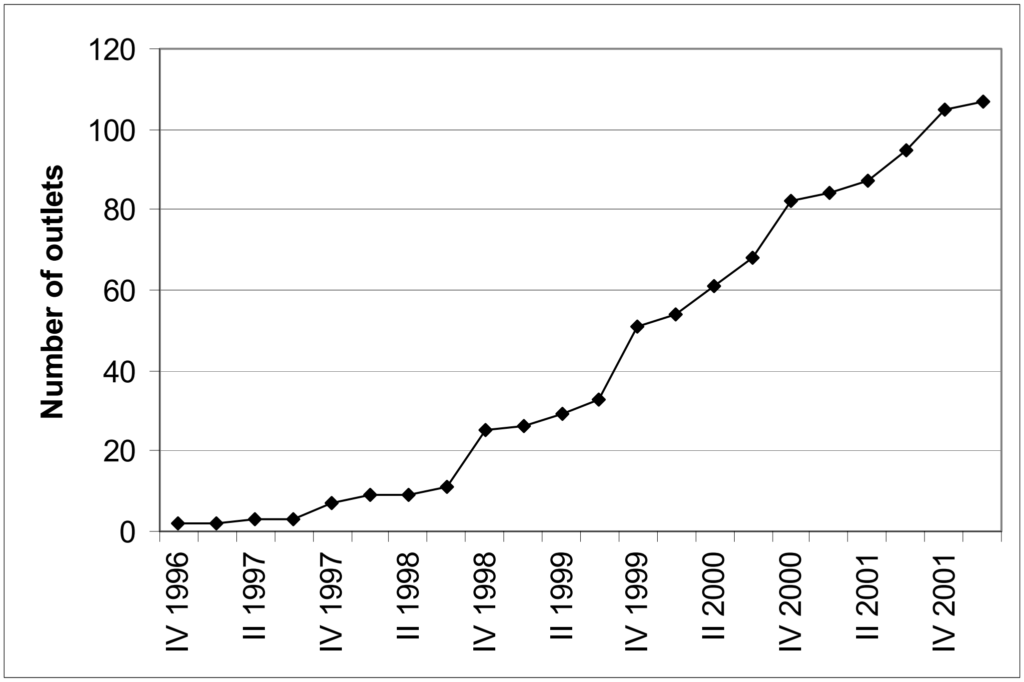

Source: Own calculations based on Shopping Monitor CE (INCOMA Research)

**Fig 7: Share of foreign companies in total retail (%)**



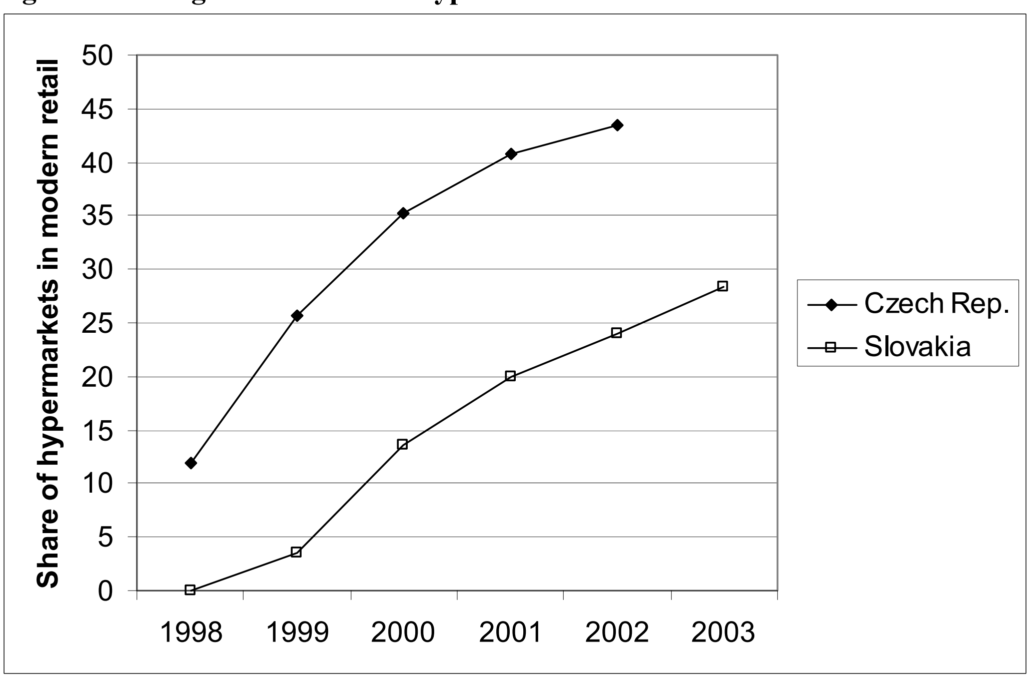

Source: Own calculations based on Shopping Monitor CE (INCOMA Research)

**Figure 8: Change in number of hypermarkets in the Czech Republic**



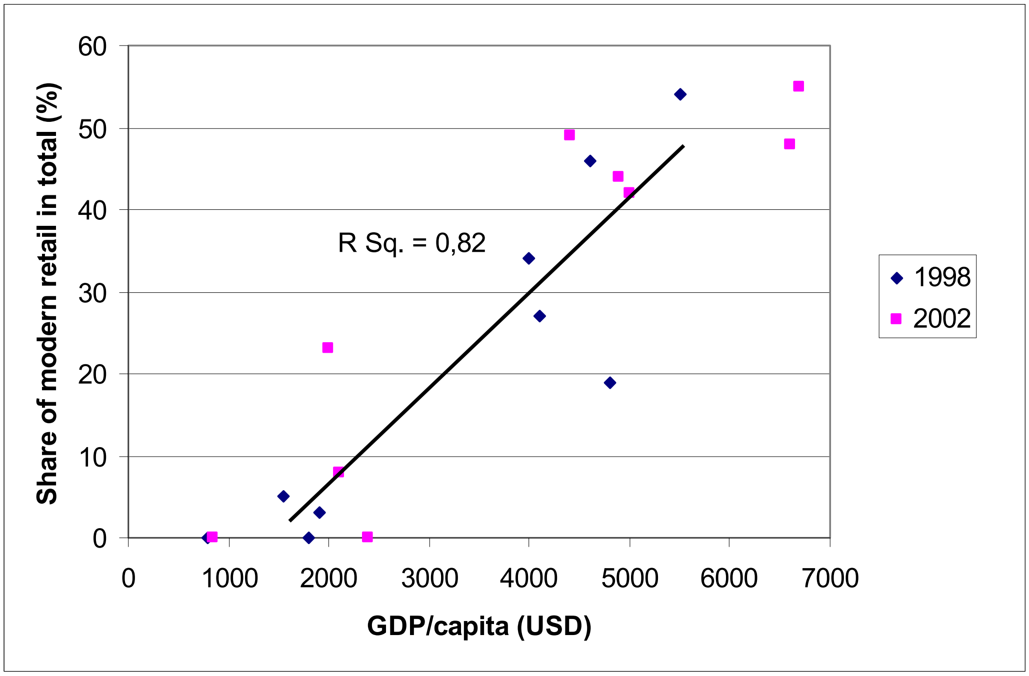

Source: Own calculations based on Shopping Monitor CE (INCOMA Research)

**Figure 9: Change in the share of hypermarkets in the modern retail sector**



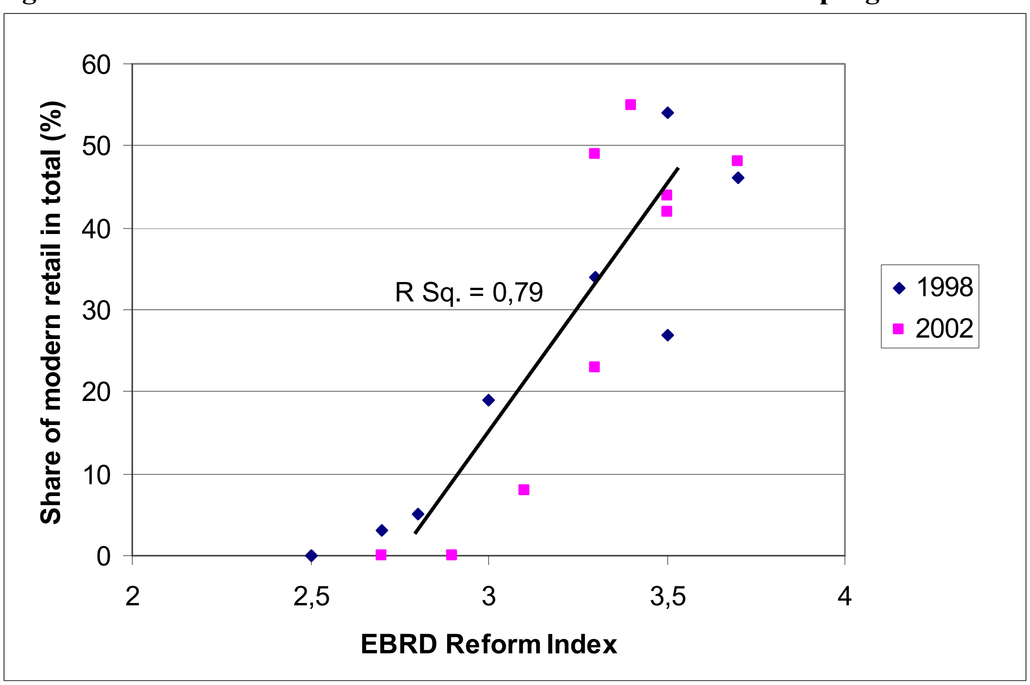

Source: Own calculations based on Shopping Monitor CE (INCOMA Research)

**Figure 10: Share of the modern retail sector in total and GDP/capita ***




* 1998 and 2000 data for Bulgaria, Croatia, Czech Republic, Hungary, Poland, Romania, Russia, Slovakia, Ukraine
Source: Own calculations based on EBRD (2003) and Incoma Research

**Figure 11: Share of the modern retail sector in total and reform progress**




* 1998 and 2002 data for Bulgaria, Croatia, Czech Republic, Hungary, Poland, Romania, Russia, Slovakia, Ukraine
Source: Own calculations based on EBRD (1998, 2002) and Incoma Research