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# **Foreign Direct Investment in the Food Processing of the Baltic Countries**

Csaba Jansik



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## Preface

The food sectors of Estonia, Latvia and Lithuania share a fascinating history of sharp turning points. Modern food processing evolved starting with a revolutionary boom between the two world wars, continued as centrally controlled extensive socialist development in the soviet time, and restructured fundamentally in the new environment of market economy in the 1990s. Food processing has always been one of the most significant sectors and a major source of export earnings in the Baltic economies.

The most recent turning point removed artificially set barriers and reanimated the long-forgotten commercial vivacity around the Baltic Sea region. Independence brought a new era of fundamental changes to the Baltic food sectors in a regional context. Traditional trade patterns revived bringing also a new phenomenon to life: the international flow of food industrial capital. Sudden changes stirred up food industrial circles in every corner of the Baltic Sea region.

This research focuses on the foreign investments that have flown to the Baltic food industries over the past decade. Foreign capital infusion has played a substantial role in the restructuring food processing sectors. This research was designed to analyse the determinants of food industrial FDI and the host environment in the Baltic countries. The study attempts to embrace the entire process of food industrial FDI from source to destinations by searching the experience and motivations of Finnish food processing investors in the Baltic countries. The opening Baltic markets have spurred and enhanced the internationalisation of Finnish food processing firms, while Finnish investments have gained high rank in the food industrial FDI stock of all Baltic countries.

Estonia, Latvia and Lithuania aspire to membership in the European Union. The Baltic production subsidiaries of Finnish and other Scandinavian food processing investors are predicted to operate on the vast homogenous food markets in the foreseeable future. The European Union's Eastern enlargement presents serious challenges but also offers prospects to both foreign investors and their Baltic affiliates.

This study is the final product of a one-year research project at the Agricultural Economics Research Institute in Helsinki in 1999-2000. I would like to thank the staff of the institute for their kind assistance and guidance. The project was instructed and supervised by Ilkka Laurila and in the final phases also by Jyrki Niemi. Lauri Kettunen reviewed the final manuscript and gave useful comments on it. I owe special thanks to Juha Marttila, who initially directed my attention to the interesting and rich topic of food industrial FDI in the Baltic countries. In the technical phase of the publication Jaana Ahlstedt provided valuable help by doing the layout of the final manuscript.

This research project builds heavily upon the several dozens onsite consultations with food industrial experts, researchers and businessmen in the Baltic



countries and in Finland. I hereby would like to express my sincere appreciation for their valuable contribution. The detailed list of interviewed experts is included in the section of references at the end of the study.

Many individuals assisted me in the collection of primer data in Estonia, Latvia and Lithuania. I particularly wish to thank Andris Miglavs, Piret Hein, Irena Kriščiukaitienė and Romualdas Zemeckis for their precious assistance in organising the local meetings and providing logistic support, Vilija Girgždienė, Tiina Saron and Juris Hāzners for their thought-raising comments, Andris Leitis and Brigita Aleksandravičiute for their unflagging help in getting over the language barriers.

I deeply appreciate the understanding attitude of executive managers of Finnish food processing companies, who devoted their time to a lengthy questionnaire and shared their thoughts and experience with me on their Baltic investments.

Finally, I would like to thank the Finnish Ministry of Agriculture for the financial support of the research project.

The research study is a synthesis of primer and secondary information collected in 1999 and 2000. Closing date for data collection was March 2000, which date should be stressed especially in the context of industry case studies.

The study attempts to express an impartial and objective view on foreign investments in the Baltic food sectors. It does not represent an official standpoint of any involved institutions. I am solely responsible for the findings, interpretation and conclusions presented in the study as well as for any errors that may occur throughout the text.

Helsinki, May 2001

Csaba Jansik

## **Foreign Direct Investment in the Food Processing of the Baltic Countries**

Csaba Jansik

**Abstract.** The Baltic countries implemented fundamental structural and economic reforms in the 1990s including comprehensive privatisation and liberalisation of foreign trade of goods and capital. Food processing was the largest contributor to manufacturing output in all three countries in the 1990s. Privatisation of food processing started early and was completed by the end of the decade.

The study analyses foreign direct investment inflows to the food processing of the Baltic countries from the beginning of the reforms to the end of 1999. The main purpose is to investigate the magnitude and sub-sectoral distribution of food industrial FDI.

The country-specific chapters for Estonia, Latvia and Lithuania are structured uniformly. After an overview of food processing, food industrial FDI is examined, while industry case studies form the second part of the chapters. The study includes altogether 21 detailed case studies of individual food industries from the three countries.

The figures on the distribution of geographical origin reveal the important share of Finnish investors in the food industrial FDI influx in the Baltic region. Therefore, the motivations, experience and strategy of food processing investors were uncovered through a survey among the Finnish investors.

Foreign investors have expressed different interest in the individual food processing sub-sectors all over Central and Eastern Europe. The same patterns were identified in the Baltic countries. The ultimate research objective of the study is to determine the forces that have driven the preference of foreign capital. A novel analytical tool, the concept of FDI-concentration maps is introduced, by which national and Baltic similarities and disparities are detected in the light of the Central and Eastern European tendencies.

The study concludes that uneven sub-sectoral allocation of food industrial FDI was driven by privatisation policy, concrete implementation of privatisation and industry structure of the sub-sectors. The study also confirms that – complying with the Central and Eastern European observations – attainable market power has motivated the sub-sectoral choices of foreign investors in the food processing of the Baltic countries. Further changes are foreseeable in the ownership structure of food processing in the near future; an important element is the consolidation of food industrial capital in the Baltic region. Corporate competitiveness will be crucial in the survival of Baltic food processing companies after accession to the European Union.

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**Index words:** Estonia, Latvia, Lithuania, food processing, foreign direct investment, privatisation, FDI-concentration maps, FDI motivations, food industrial sub-sectors

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## List of Acronyms

BAFTA	Baltic Free Trade Agreement
BBH	Baltic Beverages Holding
BCE	Business Central Europe
BNS	Baltic News Service
CEE	Central and Eastern Europe(an)
CEFTA	Central European Free Trade Agreement
CIS	Commonwealth of Independent States
CR	Concentration Rate
EBRD	European Bank for Reconstruction and Development
EEK	Estonian Kroon
ETK	Central Consumers Cooperative of Estonia (Eesti Tarbijate Keskühistu)
FDI	Foreign Direct Investment
FFDIF	Finnish Food and Drink Industries' Federation
FIM	Finnish Markka
FSU	Former Soviet Union
FYR	Former Yugoslav Republic
GDP	Gross Domestic Product
IMF	International Monetary Fund
IO	Industrial Organisation
LTL	Lithuanian Lita
LVL	Latvian Lat
MA	Ministry of Agriculture
MFA	Ministry of Foreign Affairs
MNEs	Multinational Enterprises
MS	Market Size
MTTL	Maatalouden Taloudellinen Tutkimuslaitos, Agricultural Economics Research Institute, Helsinki)
NACE Rev. 1	Nomenclature générale des Activités économiques dans les Communautés Européennes, Standard Classification of Economic Activities in the European Union, Revision 1.
OECD	Organisation for Economic Cooperation and Development
SCP	Structure-Conduct-Performance paradigm
SEK	Swedish Krona
SME	Small- and Medium-scale Enterprises
UN	United Nations
UNCTAD	United Nations Conference on Trade and Development
UNIDO	United Nations Industrial Development Organisation
USD	U.S. Dollar
USDA	United States Department of Agriculture
VAT	Value Added Tax
WTO	World Trade Organisation



# 1. Introduction

*Central and Eastern Europe* (CEE) experienced economic difficulties and a sharp decline in agricultural and food output as a result of the political and economic changes at the end of the 1980s. National economies have already recuperated from the first crisis of the shift to market economy. Several structural and institutional reforms were completed; production decline was stopped and turned into growth in the middle of the 1990s. As a significant element of the reforms, foreign trade was liberalised and trade relations were re-orientated into new directions. CEE countries endeavour to integrate their economies into the European Union.

An essential component of this strategy is to import foreign capital, expertise and up-to-date technology. Central and Eastern European countries have attracted nearly USD 90 billion of foreign direct investments (FDI)<sup>1</sup> over the past decade. Foreign investments are expected to heal the acute capital shortage and also to improve competitiveness, profitability, and quality.

On the other hand, multinational and large foreign companies that are under a constant growth pressure have also benefited from the opportunities, since privatisation of the state owned firms in the CEE countries offered them outstanding chances to penetrate into new markets.

The Baltic countries, *Estonia, Latvia and Lithuania* have received a great deal of foreign investments relative to their size. Capital influx has accelerated especially over the recent years. The current research reviews the host environment that foreign firms have encountered in each of the Baltic countries.

Due to its geographic proximity, the Baltic region is of great importance to *Finland*. Finnish firms have actively invested into the Baltic countries. Their accomplished projects, experience, and future strategies represent the attitude of foreign investors in the region including investment motivations and obstacles.

*Food processing* has been a magnet for foreign investments ever since transition reforms began in the early 1990s. It has absorbed a significant portion of total industrial investments. Two reasons explain the phenomenon. First, in many CEE countries food processing was one of the first areas to be privatised, and second, foreign firms have expressed a particular interest in the food industries. A relatively stable level of food consumption and the expected growth of domestic food markets were definitely among the attracting forces of food industrial FDI.

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<sup>1</sup> Foreign direct investment (FDI) is a transaction in which an investor based in one country (the home country) acquires assets in another country (the host country) with the intent to manage that particular asset. This management dimension explains the "direct" aspect of FDI distinguishing it from portfolio investments in foreign stocks, bonds and other financial instruments. (World Trade Organisation 1996).

Food processing holds an extraordinary position in all the Baltic economies. Despite the recession, it has accounted for around one-third of total manufacturing output and foodstuff shipments have been major contributors to export earnings in each Baltic country over the past decade.

The fundamental political-, legal-, and economic reforms, corporate restructuring and privatisation shook the conventional patterns of Baltic food processing. The new operational environment introduced unmercifully harsh business and financial relations compared to the protection and convenience in the age of state paternity. Shrinking foreign and domestic markets accumulated tremendous redundant capacities. A rivalry for survival induced vicious competition among food processors. Enterprises needed capital for modernisation and rapid transfer to market oriented management mentality. Food industrial foreign investments offered a fast way of resolution to both needs of Baltic food processing companies.

## **1.1. Research Objectives, Structure and Methodology**

### **1.1.1. Research Objectives**

Food industrial FDI flowed into the Baltic countries in a historically unique period. It became a strong shaping force of food processing in Estonia, Latvia and Lithuania. At the same time, the process has been of remarkable importance to the food processors of investing countries. Food economies in Europe have generated increased interest for research over the past decade. Food processing arrived at a milestone in the beginning of the 1990s marked by strengthening globalisation, liberalising food economies in the Central and Eastern European countries, and consequently, an internationally vivid capital flow.

*The main purpose of the research study is to document the above unique period through the illustrative example of one particular geographic area in Eastern Europe.* The elaborate account of inward foreign direct investment in the Baltic food processing demonstrates the general characteristic features of inward food industrial FDI in the CEE region. *The research study is geared towards two target groups with slightly different purpose. For outside users, it aims to be a source of factual information, while for “inside readers”, for those involved in food industrial FDI flows in the Baltics, it intends to grant a coherent overview of Baltic food processing industries and a novelty analysis of sub-sectoral FDI motivations.*

Prior to the explication of research objectives, it is imperative to draw the boundaries of interest and determine what lies out of the study's focus. The study does not attempt to address the macroeconomic development and the dynamics of overall FDI to the Baltic countries, since extensive literature has been written on them. Agricultural production and the related policy issues have

also been the subject of many research projects. This study does not intend to discuss agricultural problems with the occasional exception of factors affecting food processing or food industrial FDI. Time-span of the study is limited to the 1990s.

*Two primary research objectives were set in the study: identifying (1) the motivations and (2) magnitude and significance of food industrial FDI in the Baltic countries.* Research objectives can further be classified into four groups. The following paragraphs include the objectives; a concise explanation is attached to each. *The study endeavours:*

1. *to explain the developments in the Baltic food processing and the characteristics of food industrial FDI.* The overviews of food processing sectors are restricted to some main aspects and events that are necessary to understand the attributes of food industrial FDI.
2. *to document the major changes of ownership, market structure and performance of selected Baltic food processing industries in the transition period.* The two major selection criteria of industries were (1) significant size within food processing, and/or (2) demonstrative characteristics to illustrate the trends of food industrial FDI.
3. *to survey the motivations, strategy and experience of Finnish food processing investors in the Baltic countries.* Objectives include scanning of FDI determinants – both motivations and obstacles –, as well as future strategy of the investors.
4. *to explain the driving forces of uneven industrial distribution of foreign capital among the food processing sub-sectors within the Baltic countries.* The study intends to uncover the common patterns in Baltic food sector and the divergences observed in the individual countries. The Baltic examples will also be contrasted to the industrial distribution of food processing FDI in Central and Eastern Europe.

### **1.1.2. Applied Research Methods**

*Economics of industrial organisation constitutes the underlying theoretic and conceptual foundation for the study.* The entire research is built upon the industry approach, as a core aspect.

Food processing is examined with respect to its significant role in the manufacturing sector, then the focus is shifted to individual food processing industries. International economic context in Chapter 1 and food sector overviews in Chapters 2 to 4 are descriptive sections using primer and secondary statistical information: the analyses of food industrial FDI in the country profiles are

supported both by first-hand information ordered directly from Baltic national statistic institutes and secondary data from statistical publications.

Market boundaries are often indistinct in food processing, since substitution of competing products is complex and large enterprises tend to diversify activities. Hence, industries are hard to demarcate for concrete research. The current research delimits food processing industries on the ground of NACE,<sup>2</sup> a very exact and internationally approved statistical classification of industries. Food industries are defined as the 4-digit classes or 3-digit groups of Division 15 in the study. Division 16, tobacco is considered a separate food processing industry.

The economics of industrial organisation considers three main categories of conditions in each market or industry: structure, conduct and performance. Several views have been evolved as to how causation runs among the three attributes of industry.<sup>3</sup> The mainstream view of industrial organisation claims that causation flows from market structure to performance (Table 2). Market structure is argued to have the initial impact in a particular industry, it determines the strategy or behaviour of the participants, which, in turn, influences the financial performance of the companies and the entire industry.

Country profiles feature elaborate information on the individual food processing industries after the overview of Baltic food sectors and food industrial FDI. The *method of case studies* is applied to investigate the characteristics of individual food processing industries.<sup>4</sup> Industry case studies constitute a popular research technique since they are real-life reflections and illustrations of the concepts of industrial organisation and economic theory.

The concrete structure of case studies varies freely among the examined industries, although common objectives are clearly observable through the en-

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<sup>2</sup> Nomenclature générale des Activités économiques dans les Communautés Européennes, NACE is the statistical classification of economic activities within the European Union. Currently NACE Revision 1 is in use in Europe. The classification includes Sections and Subsections (alphabetical codes), Divisions (2-digit codes), Groups (3-digit codes), and Classes (4-digit codes) (Eurostat 1996, p. 147).

<sup>3</sup> The analytical framework including the three main industry conditions is also known as SCP-paradigm that is generated from the initials of the three components. The *mainstream view* is a contrast to other streams such as the *behaviouralist* or the *entry-contestability* approaches (Shepherd 1990, p. 5-9)

<sup>4</sup> The birth of industry case studies as a research technique dates back to the early phases of evolving industrial organisation theory. The issues of monopoly, oligopoly, and their profit and pricing implications raised the attention of economists at the turn of 19<sup>th</sup> and 20<sup>th</sup> centuries. In the early 1900s, industry gradually replaced the firm as the focal point for economic thought and research. The method of industry case studies was developed by a group of young economists headed by Edward Mason at Harvard University in the 1930s. (Shepherd 1990, p. 524) Industry case studies gained popularity and spread in economics. Due to their demonstrative power, they are frequently used also in economic textbooks.

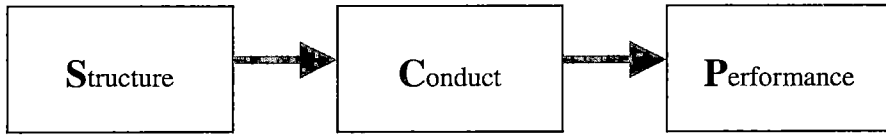


Figure 1. Causation flow of the mainstream view in industrial organisation.

tire set. All case studies intend to document the changes in market structure and the arrival or absence of foreign direct investments. Besides, financial performance is often traced whenever data availability allowed such investigation. A part of “Conduct” component was covered by the investigation of market structure, which frequently presents information on rivalry and corporate behaviour in the particular industry. Besides, little emphasis was put on the “Conduct” component, mostly because related statistical figures and facts, such as advertising expenses etc., are rather scarcely accessible in the Baltic countries.

Industry case studies provide interesting lessons about food industrial FDI. Concrete examples facilitate concluding remarks and some generalisation at the end of several case studies. The case studies have two primary missions within the study. (1) They display facts and information on the ten-year history of Baltic food processing industries. (2) They serve evidence to the Baltic application of FDI-concentration maps.

The survey chapter could itself be considered an autonomous study, since methodology and the scope of research diverge from the main approach. As far as the applied methodology is concerned, the chapter belongs to the *survey research* category according to the classification on page 20. Yet, survey component enriches the study with an additional approach. The survey was designed and incorporated to the research project for two reasons:

1. It links up with the rest of the chapters, the line of country profiles and case studies. The survey examines food industrial FDI at the sources of investments; it makes the previous chapters complete with the investors’ standpoint and experience.
2. Survey results together with industry case studies support the principal conclusion of the study: the concept of food industrial FDI-concentration maps and their Baltic manifestation.

The *concept of FDI-concentration map* is an effort to give a consistent explanation to the phenomenon of uneven sub-sectoral distribution of food processing inward FDI stock in the Central and Eastern European countries. The idea was developed on the ground of industrial organisation. FDI is argued to take up a particular position and play an influential role in the causation flow of

SCP-paradigm (Figure 49). The concept of FDI-concentration map enounces the inter-relation of market structure and foreign direct investments. Chapter 6 provides a discussion on the methodology and the preceding thoughts and findings in the literature of FDI and industrial organisation that the idea of FDI-concentration maps conceived on.

### 1.1.3. Definitions and Applied Terminology

In order to ensure the consistency of discussion through the research study, it is imperative to give an account of the most important definitions and terms. The following section includes a brief introduction of the most frequently applied elements of terminology in the field of FDI, food processing and industrial organisation.

*Foreign investments* are in the centre of the entire study. As defined earlier in footnote 1, foreign direct investment, or FDI, is to be distinguished from portfolio and other financial investments. FDI is concluded always by *foreign strategic investors*, who are headquartered in their *resident countries* and run *production subsidiaries* or *foreign affiliates* in the *host countries*. In the Baltic food processing, strategic investments are of crucial importance since they usually involve a transfer of technology, know-how, and technical and managerial expertise. Financial investments do not interfere directly with daily operation of the acquired company. Although FDI and strategic investments are in the primary focus of the study, financial investments will also be covered in the country-, and industry-specific sections. Financial investors are exceptionally active in the Baltic countries compared to the food processing of other CEE countries. Both strategic and financial investments will be taken into account in calculating the rate of foreign participation in the individual food industries.

The exact boundaries and consistent terminology of economic activities are essential in the study. Manufacturing sector, Section D in NACE, consists of several processing activities including the manufacture of foodstuffs. Manufacture of food, beverages and tobacco – NACE divisions 15 and 16 – are together referred to as *food processing* or occasionally food sector. Individual branches – three-digit groups and four-digit classes in the NACE classification – are called *food processing industries* or *sub-sectors*. First-stage and second-stage processing food industries will frequently be distinguished through the discussion. *First-stage industries* process the output of basic agricultural production. Since they are characterised by direct reliance on agricultural raw material, vertical relations and procurement mechanisms are of utmost importance for first-stage processors. These industries are typically exposed to agricultural policy and the various endeavours of agricultural lobbying in most economies. *Second-stage industries* utilise semi-finished processed goods or other ingredients, which reduces their direct exposure to agriculture. There is not a distinct consensus on

exactly which industries belong to which group. Dairy, meat, fish, fruit and vegetable, and grain processing as well as sugar production are usually classified as first-stage processing industries. Bakery, confectionery, beverages and tobacco are mostly considered as second-stage processing industries, although some of them procure part of its raw material from agricultural producers.

*Industrial organisation approach applies various measurement techniques of industry structure and industry performance.*

Several calculation methods exist to capture the structure of a given industry: (1)  $CR_k$  concentration ratios measure the share of the  $k$  largest companies in the aggregate sales of the industry. (2) Herfindahl-Hirschman Index (HHI) involves the data of each company and is computed as the sum of squared market shares of all companies in the industry. (3) A rather rarely used formula is the entropy-coefficient, which also includes information on all companies using the logarithm of their inverse market shares. HHI and entropy coefficients are regarded as accurate indicators of industry structure since they both utilise information on the total number of companies in an industry. However, such detailed databases are rarely available.  $CR_k$  concentration ratios are the most widely applied indicators of market structure, since their data requirement is confined to the sales figures of the largest enterprises in the industry.  $CR_4$  is the most commonly used concentration ratio of concrete industry-specific studies as well as it is the most wide-spread concentration ratio calculated in food industrial analyses.<sup>5</sup>  $CR_4$  indices will be applied also in the current study as the primary indicators of industrial structure. They will be used both in the industry case studies and in the comparative analysis of FDI-concentration maps.

Quantifying the influence of foreign capital within the individual food processing industries is an essential issue in the study. *Foreign participation is measured as foreign ownership share within the aggregate registered capital in a given industry. Registered company capital* refers to the equity of an enterprise, with which it is officially registered and which reflects the composition of owners. Aggregating the company capital of all involved enterprises gives the ownership composition of the entire industry.<sup>6</sup>

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<sup>5</sup> Ratnayake (1999, p. 1043) found a significant correlation between  $CR_4$  and HHI indicators with industrial data of New Zealand. He stressed the applicability of  $CR_k$  ratios also for empirical and IO analyses, as  $CR_4$  ratios are fairly easily understood indices of market power and they are useful for international comparison due to wide availability.

<sup>6</sup> It is important to note, that the company weights obtained from registered capital figures does not necessarily result in the same rank and structure as sales revenues or financial indices of individual companies. Market leading companies may be underrepresented in the capital structure, or companies with smaller market shares may have relatively high shares in the industry's aggregate registered capital. *Vice versa*, the largest companies may also be overrepresented in the capital structure, if their company capital share is higher than their share in industrial sales revenues would suggest.

*Profit is the ultimate performance indicator* used throughout the study. *Profitability* is always calculated as *profit before taxes to net sales revenues* of a particular company, unless otherwise stated. Aggregate industry profitability is the summed profits and losses of all involved companies as a share of aggregate sales revenues in the industry.

Baltic countries used to be part of the Soviet Union until 1990-1991, when they eventually detached as a result of an impressive and rapidly accelerating public and political liberty-movement. The term *pre-independence period* refers to the soviet time, while *transition- or post-socialist period* signify the independent new era. Initial hyperinflation was soon tamed by strict economic policy; monetary reforms introduced stable currencies in all Baltic countries. Therefore, *local currencies* – Estonian Kroon (EEK), Latvian Lat (LVL) and Lithuanian Lita (LTL) – are used through the entire study. A table of exchange rates can be found in Annex 2.

#### **1.1.4. Position of the Current Research in the FDI Literature**

*Foreign direct investments into Central and Eastern Europe* have inspired the birth of extensive literature over the past decade. Various classification concepts emerged to provide orientation in the multitude of FDI studies. Pye (1995) suggests a division between descriptive studies and survey research. Szanyi (1998) asserts the literature into three groups: (1) case studies, (2) surveys, and (3) studies using national databases. A recent classification identifies *three categories on the basis of applied methodology* (Jansik 2000b):

1. *Analytical-descriptive studies*. National or international databases are used to document the dynamics of FDI flows and stock, describe the geographic origin and sectoral destination of foreign direct investments.
2. *Survey research*. Investors are surveyed by questionnaires or interviewed in person to collect first-hand information on their motivations and experience in Central and Eastern Europe. Researchers then process the information and publish average or overall figures in support of the principal conclusions.
3. *Empirical studies*. Empirical analyses utilise databases of macro- or micro-economic levels and apply statistic or econometric techniques or construct models to reach results and conclusions.

Applied methodology provides an important angle to categorise studies written on foreign direct investments into Central and Eastern Europe. However, *further aspects of classification* may also determine the nature and position of studies in the body of FDI literature:

1. *Geographical coverage* is the choice of host economy to be investigated. Geographical coverage may comprise (1) the entire



- CEE region, (2) a group of countries or (3) one individual country.
2. According to sectoral destinations, studies may specialise in a certain recipient sector such as manufacturing or services or even in particular industries such as various manufacturing industries or banking. *Industry specific analyses*, however, form a rare group within the literature of FDI into the CEE region.
  3. Studies frequently investigate two aspects of FDI. According to *research subjects*, the primary objective may be to explore (1) the determinants or (2) the influence of foreign direct investments. FDI determinants can further be divided into fostering or impeding factors, in other words *FDI motivations and FDI obstacles*.

*This research* cannot be strictly assorted to one single category of applied methodology. The country profiles are analytical-descriptive sections that rely mostly on national statistics. Industry case studies embody a different research methodology. The chapter on the experience of Finnish food processing investors represents another different technique, as it belongs entirely to survey research category. FDI-concentration maps on their behalf apply certain empirical elements.

While the study *is characterised by a combination of research methods*, it can be precisely assigned to categories by the additionally reviewed classification aspects. Geographical coverage includes an exact group of countries, the Baltic States, and the study focuses exclusively on one clear section of manufacturing: food processing. As for its research subject, the study aims to identify the motivations of foreign investors that have driven FDI into the food processing of the Baltic countries.

### **1.1.5. Structure of the Study**

The study consists of seven chapters. Chapter 1 is an introduction, and major conclusions are drawn in the closing Chapter 7. *Research is organised into three distinct parts:*

1. *Chapters 2-4 present the country profiles of Estonia, Latvia and Lithuania, respectively,*
2. *Chapter 5 is a self-contained unit that reports the results of a survey research on Finnish food processing investors operating in the Baltic markets, and*
3. *Chapter 6 introduces the concept of FDI-concentration maps and applies it to the Baltic food processing.*

Research objectives are determined, the structure of the study and the set of research techniques are introduced in Chapter 1. It also sets the stage for further discussion featuring a brief overview of food industrial FDI in Central and

Eastern Europe and the most important common characteristics of Baltic food processing and food industrial FDI.

The country profiles of Estonia, Latvia and Lithuania follow a parallel structure in Chapters 2, 3 and 4. Each profile is divided into two parts:

1. The first part provides elaborate statistical information on the food processing industries. It includes (1) an overview of the food sector and (2) a section on food industrial FDI. *Food sector overview* enumerates the significance of food processing within manufacturing, the industry-structure, and dynamics of food production as well as share of domestic and export sales. The section of *food industrial FDI* unveils figures and information, which often are unavailable in regular statistical publications, thus they have rarely been detailed by earlier studies. Main characteristics of food industrial foreign investments such as their proportion in manufacturing FDI, role in the food processing, geographic origin and distribution among the individual food industries are reviewed for each Baltic country.
2. The second part consists of seven food industry case studies from each country. The case studies document the post-socialist history of selected food industries with demonstrative importance to food industrial FDI and shed light on the details of host environment for foreign investors.

Chapter 5 summarises the results of the survey conducted with 12 Finnish food processing investors who run altogether 21 production subsidiaries in the Baltic countries.

Chapter 6 delineates the concept of FDI-concentration maps. It is applied to the Baltic food processing with the aim of giving a coherent explanation for the uneven sub-sectoral distribution of food industrial FDI. Chapter 6 builds on the information provided in the previous chapters and synthesises the market seeking nature of foreign investors. The study ends with conclusions and a summary of major findings in Chapter 7.

Figure 2 demonstrates the logical linkage among the three major components of the research. The international economic context and country profiles presenting statistical overviews and food industry case studies make up the most extensive component. The three country profiles and the survey result component are to provide a solid foundation to the conclusions presented in the chapter of FDI-concentration maps.

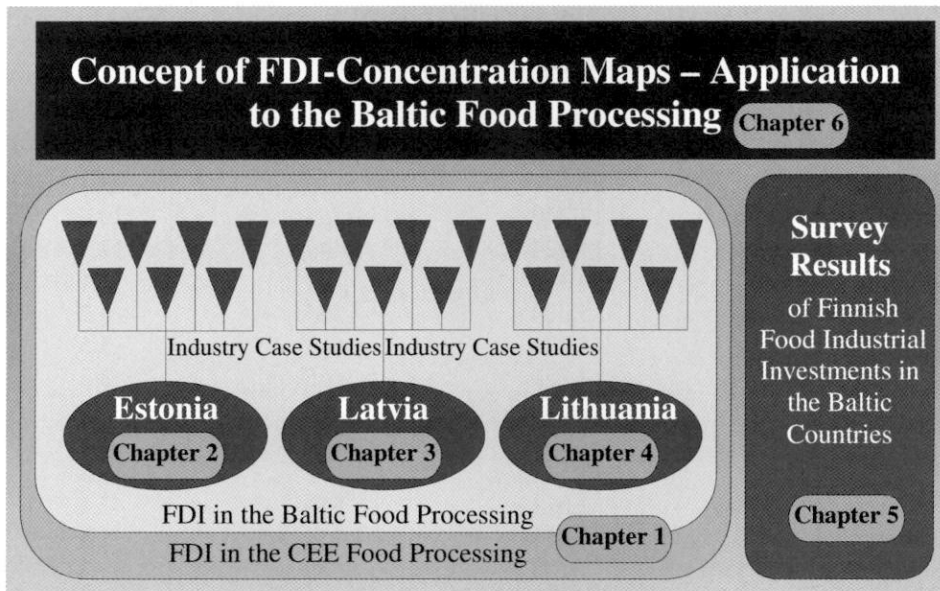


Figure 2. Structure of the Research.

## 1.2. International Context for Food Industrial FDI in the Baltic Countries

The world economy has been affected by intensifying globalisation in the 1990s which coincided with the opening and liberalisation of the Central and Eastern European economies. Although the majority of FDI is traded within the developed regions,<sup>7</sup> Central and Eastern European countries have rapidly increased their capital import since the beginning of the reforms. The foreign investment stock in CEE exceeded USD 83 billion in 1998. It made up only a little over 2 percent of the world's total inward FDI stock, but the capital infusion represents fundamental importance to the economies of the recipient countries.

There is certainly a historic reason for dynamically growing capital inflows to the former socialist countries. Through opening up after decades of isolation, they suddenly became popular targets of foreign capital. FDI has been distributed unequally among the CEE countries since the beginning of the transition reforms. Poland, Hungary, Czech Republic, and Russia have received the over-

<sup>7</sup> The world trade of capital has been dominated by the investment *Triad* including the European Union, Japan and the United States. The *Triad* accounted for 78.8 percent of the world's total outward and 58.5 percent of inward FDI stocks in 1998. Approximately 63 percent of the outward FDI stock originated from the *Triad* were also located in the *Triad* countries. (UNCTAD 1999, p. 21, 491, 495).

*Table 1. Net FDI inward stock in selected Central and Eastern European countries.*

	in million USD	in USD/capita	% of total
Poland	20,047	518	23.5
Hungary	17,770	1,759	20.8
Czech Republic	14,924	1,449	17.5
Russia	10,344	71	12.1
Romania	5,264	234	6.2
Croatia	2,984	663	3.5
Ukraine	2,751	55	3.2
Bulgaria	2,265	276	2.7
Latvia	2,135	890	2.5
Slovakia	2,111	391	2.5
Lithuania	2,012	544	2.4
Estonia	1,615	1,154	1.9
Slovenia	1,135	568	1.3
Total CEE	85,357	280	100

Source: EBRD 2000, p. 15.

Note: The list is representative and does not include figures of Albania, FYR Macedonia and most of the CIS countries.

whelming majority of foreign investments. An unquestionable attracting force is the size of the host economy, which captures part of the uneven geographic distribution of FDI. In order to seize the aggregate power of other attracting forces among the CEE countries, FDI inward stock figures are often expressed in relative terms usually divided by the population of the host country (Table 1).

Although the absolute amount of FDI inward stock stayed modest, the Baltic countries have been very successful FDI recipients in relative terms. FDI stock per capita in Estonia, Latvia and Lithuania are well above many large countries' corresponding figures and also the region's average.

### **1.2.1. FDI in the Food Processing of the CEE countries**

Food processing has traditionally played key role in the economies of all CEE countries. It has ensured domestic food supply, processed agricultural raw material and in many countries contributed notably to foreign earnings. Restructuring has driven food processing into deep crisis. Capital shortage hindered modernisation and productivity improvements. Foreign direct investments are therefore of great importance in the region. Food processing has been a popular target of foreign investors; the shares of food industrial investments of total FDI

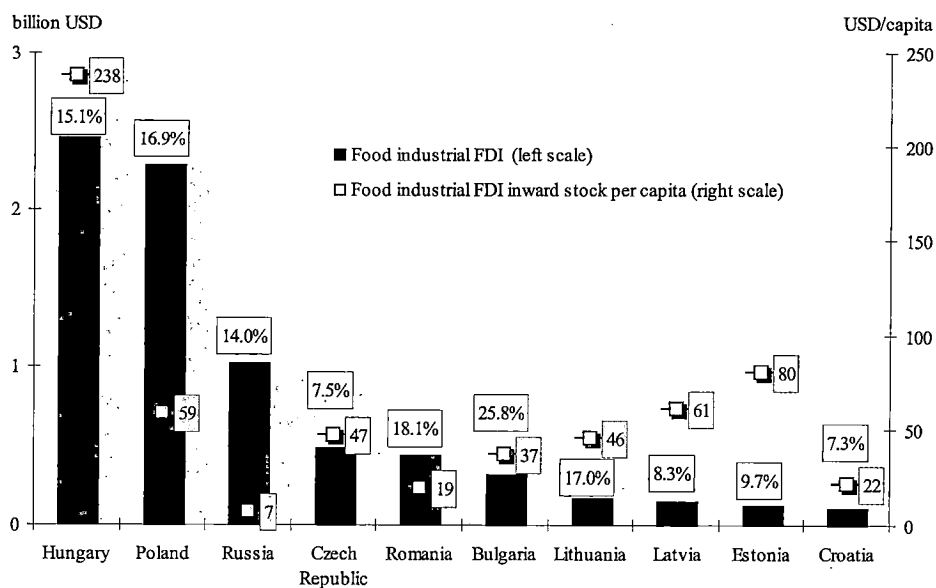


Figure 3. Cumulative stock of food industrial FDI in Central and Eastern European countries in 1997. Percentages in the boxes mark the share of food industrial FDI in total FDI (OECD 1998, p. 10; Business Central Europe 1999).

stock were between 10 and 20 percent in most of the CEE countries in 1997. Some countries, however, attracted much more investments to their food processing than others (Figure 3).

Similarly to total FDI stock, it is relevant to calculate the food industrial FDI per capita figures for each country, since they indicate the magnitude of food industrial investments relative to the size of population and result in a different order of countries. The Baltic countries absorbed modest amount of food industrial FDI in absolute terms, but relative figures indicate high attractiveness for the Baltic food processing.

### 1.2.2. Industrial Distribution of Food Processing FDI – General Trends in the Region

An interesting pattern evolved in the industrial allocation of food industrial FDI. Foreign investors have preferred certain food processing sub-sectors to others in most of the Central and Eastern European countries. A question rises, *what drives the decisions of foreign investors and their industrial priority in the food processing*. For numerous CEE countries statistical evidence suggests that foreign investors tend to prefer the following industries:

- ◆ traditionally popular food processing industries in international markets (confectionery, tobacco, soft drinks, beer),
- ◆ industries affected by strict production control in Europe (primarily sugar and to a less extent dairy),
- ◆ “luxury” high value added, highly processed expensive food articles (coffee, tobacco, confectionery, soft drinks, spirits, and certain dairy products),
- ◆ industries with good or excellent domestic market prospects (usually vegetable oil, tobacco, sugar),
- ◆ industries with good export opportunities (export oriented food processing industries vary country by country in the CEE region).

Low foreign interest and involvement in the individual food processing industries are similarly explained by the following obvious reasons:

- ◆ moderate market opportunities (both on the domestic and export markets),
- ◆ slow restructuring and privatisation,
- ◆ low value added, inexpensive basic foodstuffs,
- ◆ administrative obstacles in certain food industries,
- ◆ marginal significance within the food processing of the particular host country.

The world-wide phenomenon of globalisation has affected food processing in Central and Eastern Europe. The same multinational giants have appeared on the food markets of many CEE countries. This process has been recognised in the sugar, soft drink, beer, and tobacco production. It is anticipated to come about also in the confectionery and vegetable oil industries. Slightly smaller but still large European firms will continue to influence the distilling, dairy and meat processing industries.

### **1.3. Overview of Food Industrial FDI in the Baltic Countries**

Food sectors of the Baltic countries share plenty of common characteristics. The matching circumstances and historic heritage of food processing sectors are reviewed in this section. The major indicators of food industrial FDI are compared among the three countries to provide comprehension and a transparent base for further discussions.

#### **1.3.1. Common Characteristics of Baltic Food Processing**

During the soviet regime, the formerly renowned food sectors of the Baltic countries were subordinated to the central development plans and a giant food supply system. Industry structure of the food processing was streamlined ac-

cordingly. Meat and dairy grew to be the leading food industries in all three republics. Food processors enjoyed cheap inputs and state subsidies; in return, they supplied the vast markets with inexpensive mass products. Baltic food sectors were able to produce three to five times as much as domestic consumption would have required. Processing facilities were united into large state-owned concerns to better suit the huge demand of internal markets and to ensure an easier central control. The leading food industries such as dairy, meat, grain processing and bakery consisted of 5 to 12 mammoth firms in each country.

Estonian, Latvian and Lithuanian food sectors found themselves in a substantially new operational and market environment with regained independence in the beginning of the 1990s. The most severe losses were experienced in market conditions, since traditional markets were cut off with the new borders. As for eastern sales opportunities, Baltic food processors were struck by (1) import duties, (2) the competition of subsidised western food exports and food aid, (3) political disagreements and (4) drastically falling purchase power.<sup>8</sup>

Production of most food articles contracted drastically in the early 1990s. Outputs are not expected to recapture the oversized pre-independence magnitudes, they will most likely stabilise on lower levels. A similar pattern of fluctuation can be recognised for export oriented food industries of the Baltic countries. After a dramatic decline in 1992-1994, sales started to recover dynamically in 1995-1997 and sank again as a result of the 1998 Russian crisis.

### **1.3.2. Food Industrial FDI**

#### **1.3.2.1. Privatisation and Foreign Direct Investments**

The opportunity for foreign direct investment was opened by ownership changes in the food processing. Like many characteristics of Baltic food sectors, *privatisation* policy directions also held cognate attributes in the three countries. Agricultural circles successfully lobbied for privileges to raw material producers in the privatisation of the largest food industries such as dairy, meat and grain processing. While farmers were offered preferential purchase opportunities in the largest first-stage processing industries, commercial based privatisation was applied mostly in secondary processing industries. The privatisation of the food processing, however, was heavily interwoven with the mighty threads of political and personal interests in a number of industries. National privatisation laws did not allow direct participation of foreigners in the largest sub-

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<sup>8</sup> Some of these factors make the transition history of Baltic food sectors rather unique compared to other transition economies, which were less dependent on foreign sales. The rest of the changes such as restructuring and ownership reforms uniformly characterise all food sectors in the CEE region.

sectors such as dairy-, meat-, grain- and fish processing. In the rest of the industries, legislation permitted selling the privatised companies to foreign investors. Yet, many successful companies were preferably transferred to domestic private ownership in the initial phases of ownership change.

Although *foreign capital* started to drip slowly to the whole region, direct selling to foreign investors through open bidding of privatisation was exercised primarily in Estonia. A few occasional direct transactions occurred also in the other two countries, but *the “two-step ownership change” remained a peculiar phenomenon associated with food industrial FDI penetration to the Baltic States.* The *first step of ownership change* was accomplished with privatisation. First-stage processing industries were typically allotted to farmers, while domestic private persons and corporate investors acquired stakes in the second-stage processing industries. Powerful domestic enterprises were ambitious buyers, who used their financial strength and sometimes a misty set of relations to acquire the most prosperous food processing enterprises. Each Baltic country had one or several corporate investors, who collected a diverse portfolio of food processing companies during the course of privatisation.<sup>9</sup> Only part of these acquisitions was made with the intention of permanent managing. Some food processing enterprises were seen as intermediate investment projects, and later were resold with notable earnings. Many foreign investors arrived to the Baltic food processing in the post-privatisation period, when investment targets had to be purchased from the fresh private owners. The majority of such shares were bought from corporate owners, although occasionally farmers and private persons also offered their shares for sale. Food industrial FDI, therefore, involved a *second step of ownership change* just within a few years.

*Time distribution of food industrial FDI influx embraces two intensive courses.* A period of haste followed the opening of economic isolation from 1991 to 1994; multinational food manufacturers arrived in the first group to acquire positions in the popular second-stage or so-called “excise” food industries. Several smaller joint ventures were also established with the participation of foreign investors from the Baltic Sea region. Early movers managed to take part in the first step of ownership change. After a silent temporary interval, food industrial FDI influx intensified again in the recent years. Northern European food processors have propelled the inflows. They gained dominant share in food industrial FDI of the Baltic region by the end of the decade (Table 3). Recent foreign investments already constituted the second step of ownership change. Numerous foreign companies opted for green-field investments, which proved to be a reasonable alternative to participating in the politically affected privatisation process.

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<sup>9</sup> The most renowned cases are the purchases of trading company *Vilnius Prekyba* in Lithuania, *Ave Lat* concern in Latvia, and holdings such as *Magnum Group* and *ETFC Group* in Estonia.



### 1.3.2.2. Foreign Ownership Share in Food Processing

Foreign investors captured sizeable shares in the Baltic food processing by 1998 (Figure 4). Estonia has the most foreign-capital dominated food sector; the high share is a result of commercially based privatisation of large processing enterprises. Concentrated structure is another factor that explains the high foreign ownership share in the Estonian food sector. With a few acquisitions, foreign investors seized some of the largest food processors, whose summed share is remarkable in the registered company capital structure of the food sector.

Parallel to Estonia, food industrial FDI in Lithuania is also centralised in large subsidiaries. The considerably lower foreign ownership share is attributable to the different capital composition of Lithuanian food sub-sectors. As a contrast to the Estonian pattern, domestically owned food industries in Lithuania have much higher portion in the aggregate company capital of the food sector than foreign majority owned industries.

The Latvian structure of food industrial FDI is dispersed compared to the other two Baltic countries. It lacks giant investment projects, although foreigner investors have occupied considerable positions. Numerous foreign owned medium-scale food processors make up a prosperous section of the Latvian food sector. Consequently, foreign capital is distributed evenly in the aggregate company capital in the food sector.

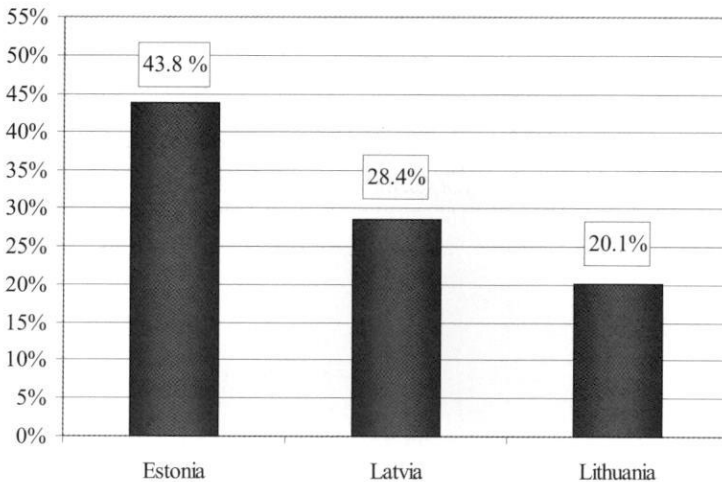


Figure 4. Share of foreign ownership in the aggregate registered company capital of the Baltic food sectors, end of 1998 (Statistical Office of Estonia 2000a, p. 94; Central Statistical Bureau of Latvia 1999a, p. 11; Statistics Lithuania 1999b, p. 23).

### 1.3.2.3. Industrial Distribution of Food Processing FDI

The industrial distribution of food processing FDI abides to the major rules in Central and Eastern Europe (Point 1.2.2, on pages 25-26). Although a distinct similar pattern is observable in the Baltic countries, the concrete manifestation of the trend shows interesting sub-sectoral divergences.

FDI clearly favours beverages and tobacco industries throughout the CEE region, this tendency is very pronounced also in the Baltic countries. Second-stage food processing industries were the first ones to lure substantial foreign investments right in the beginning of privatisation. Large food processing sub-sectors with close ties to agricultural raw material production absorbed no significant FDI before 1995. However, foreign capital infusion has risen since then, and a number of interesting, in fact astonishing industry cases occurred. FDI penetration figures in Estonian meat, Latvian milling and Lithuanian dairy industries offer fascinating stories particularly characteristic to first-stage food processing of the Baltic countries. The bakery, and fruit and vegetable processing sub-sectors provide additional Baltic peculiarities. These cases are unique in the CEE region. Table 2 displays the shares of foreign ownership in selected food industrial sub-sectors.

Industry case studies will reveal some of the reasons that explain FDI penetration. Then, Chapter 6 will provide a coherent concept on industrial distribution of foreign capital and elaborate the country specific reasons that lead to the similarities and divergences of corresponding industries.

*Table 2. Foreign ownership share in the aggregate company capital of the Estonian, Latvian and Lithuanian food processing (in percent), 1998.*

Industry	Estonia	Latvia	Lithuania
Meat	64.7	18.1	4.2
Fish	2.1	14.4	3.7
Fruit and Vegetable	92.4	79.9	11.8
Dairy	14.9	0.8	32.6
Milling	0.7	53.5	3.5
Feed	2.9	11.7	25.9
Bakery	44.7	41.3	5.3
Sugar	-	32.0	60.5
Beer	81.8	61.3	82.1
Soft drinks	89.7	40.4	16.7

Sources: data from the Statistical Office of Estonia, Industry and Energy Statistics Section; data from Central Statistical Bureau of Latvia, Balance of Payments Statistics Section; figures of Lithuania based on FDI data from Statistics Lithuania, Construction and Statistics Unit.

### 1.3.2.4. Geographic Origin of Food Industrial FDI

The two peak periods of food industrial FDI influx had slightly different composition of geographic origin. A few multinational companies arrived in a hurry in the beginning to ensure solid positions. Apart from the initial big projects, multinational enterprises have shown little interest afterwards. Scandinavian countries began investing to the Baltic food processing also in the beginning of transition, and their interest has been increasingly intensifying. Finnish, Swedish and Danish food processors have fuelled the second large wave of food industrial FDI in the late 1990s.

Table 3 shows the rank and relative weight of investing countries in the food sectors of Estonia, Latvia, and Lithuania. The table confirms that Scandinavian countries entered Baltic food processing most ambitiously. Finland, Sweden and Denmark jointly accounted for principal stakes in foreign owned capital in the food processing. They recorded 65.6 percent of food industrial FDI in Estonia, 43.9 percent in Latvia and 38 percent in Lithuania (Table 3).

Relatively small size is a common characteristic of the Baltic food markets. The three countries together consist of less than 8 million consumers. This fact has substantially influenced the geographic composition of food industrial inward FDI. The two major groups of investors, multinational enterprises and Scandinavian food processing companies view Baltic food markets very differently.

The attitude of food processing *multinational* enterprises (MNE) is clear. Since they consider the whole European or, even more so, the global food

*Table 3. Geographical origin of food industrial inward FDI stock in the Baltic countries, end of 1998.*

Rank	Estonia	(%)	Latvia	(%)	Lithuania	(%)
1.	Finland	47.0	Finland	23.2	USA	23.2
2.	USA	23.3	United Kingdom	19.4	Denmark	16.7
3.	Sweden	14.3	Sweden	18.6	Finland	11.3
4.	Denmark	4.3	USA	8.9	Sweden	10.0
5.	Netherlands	1.4	Estonia	7.7	Germany	3.4
..	Others	9.7	Others	22.2	Others	35.4
Σ	Total	100.0	Total	100.0	Total	100.0

Sources: Estonia – primer data from the Statistical Office of Estonia, Industry and Energy Statistics Section; various industry sources; own calculations; Latvia – Central Statistical Bureau of Latvia 2000a, p. 10-11; Lithuania – Statistics Lithuania 1999d, p. 16.

Notes: Calculations based on registered company capital for Estonia and Latvia and FDI inflows for Lithuania. Investments made by BBH are divided between Finland and Sweden in the case of all three Baltic countries.

markets important, the size of Baltic countries stays usually under their FDI threshold. It does not mean that multinational enterprises would neglect Baltic food markets, but they apply a different market strategy. Some of the large multinationals set foot only in one of the three countries from where they supply the entire Baltic Region. Other multinational enterprises apply an even broader regional strategy, in which Baltic markets are supplied from their other CEE production subsidiaries. Since many food processing MNEs have production subsidiaries in Poland, Baltic food markets are sometimes degraded as an extension connected to the Polish market. In these cases, separate production facilities were “spared”, trading and logistic affiliates were established instead and Baltic countries have been supplied through exports. It is evident that the Baltic food sectors do not become enthusiastic about such a strategy.

By the end of the decade *Scandinavian* countries occupied dominant position in the Baltic food industrial inward FDI stock (Table 3). This fact is not at all surprising in the light of historic developments and international context.

1. Apart from the strategy of global gigantic manufacturers, food processing investors tend to position their focus on conveniently close markets. Most Scandinavian food processing companies, which are powerful on their national markets, have traditionally concentrated international activities on the neighbouring countries. Mergers and acquisitions among the food processors of Nordic Countries started already in the 1980s and accelerated in the 1990s. The EU membership of Sweden and Finland further reinforced the consolidation process. Western European competitors have constantly joined forces across the national borders and grew rapidly. In response, Scandinavian food manufacturers pursue increasing market power that is measurable in the vast common European market. Internationally sizeable market power can most easily be created starting in the adjacent countries.
2. Transitional reforms facilitated the expansion of this “Nordic-strategy” of food industrial consolidation towards the Baltic countries. A new region is being incorporated to the Northern European food markets. Foreign investments are evidently driven also by the future accession prospects of Baltic countries to the European Union. Baltic food consumption is anticipated to be part of the unified European food market in the near future. Yet, as a special regional attitude, a kind of Nordic “fellowship and adherence” is most probably going to prevail. Northern European countries will continue to tighten their international food economic connections covering the entire Baltic Sea area.

3. Food sectors in the Baltic States excellently suited the (1) objectives, (2) economic power, and (3) location advantages of the Scandinavian food manufacturers.

- (1) The primary “corporate growth-objective” is extremely difficult to accomplish on the saturated domestic or European Union markets. The objective to grow is easiest to accomplish on emerging markets that represent promising future prospects.
- (2) Economic power of Scandinavian food manufacturers appropriately suits the magnitude of Baltic food industries and processing companies. It explains the eagerness of Nordic food processors to invest into the Baltic countries as opposed to Poland, which is also a transition economy located in the Baltic Sea region, but comprises an indigestible and huge market for medium size investors. Baltic markets have provided reasonably sized alternatives to expansion plans to Poland or even more to Western Europe.
- (3) Location or geographic proximity is evidently a serious motivation, as it also allows maintaining tight contacts in everyday operation between the parent companies and subsidiaries.

The Baltic countries underwent tremendous changes over the first ten years of transition. Their food sectors shared plenty of common characteristics in terms of historic heritage, structural patterns or market orientation at the turn of a new era. Food processing in each country entered fundamental reforms in the same international context. Still, the Baltic food sectors and individual food industries followed largely diverse paths through the course of reforms. The country profiles and industry case studies in the next chapters are designated to animate the details and elucidate the reasons for national and special industrial characteristics.

## 2. Estonia

### 2.1. Overview of Food Processing

The Estonian food processing sector has been traditionally export oriented. During Estonia's first independence period, large quantities of bacon and butter was sold primarily to the United Kingdom, Germany and the Scandinavian countries. In the soviet regime, production of meat and dairy industries was redirected to the large markets of the Soviet Union. Fish processing also developed rapidly to supply eastern markets. Production capacities of the food processing exceeded domestic demand by about 30-40 percent. Food production reached its peak in the 1980s. Estonia was designated to be one of the food suppliers in the Soviet Union's inter-republic distribution of industrial activities.

#### 2.1.1. Significance of Food Processing in Estonia

Decades of development and perpetual investments of food processing resulted in an industry structure, in which it attained predominant position among other industries. Food processing used to account for over one-third of Estonian manufacturing output in the pre-independence period and long persevered its position through the turbulent years of the 1990s (Figure 5).

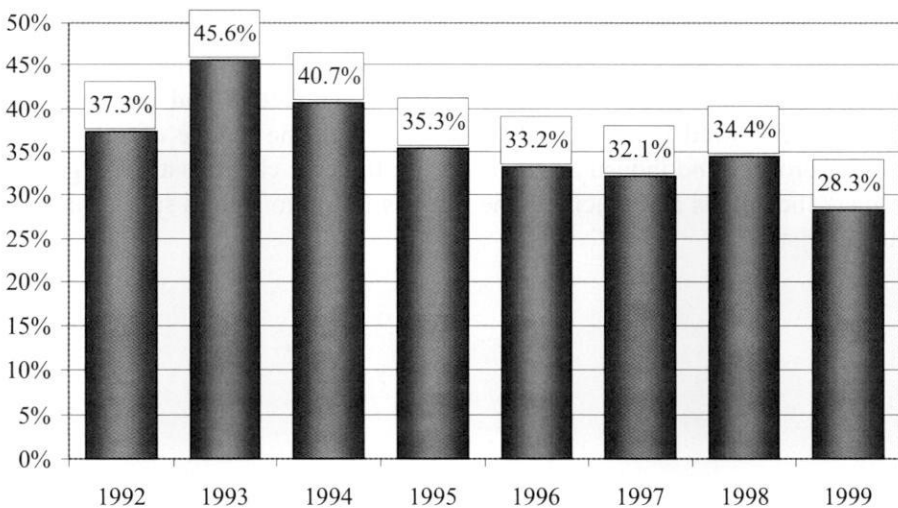


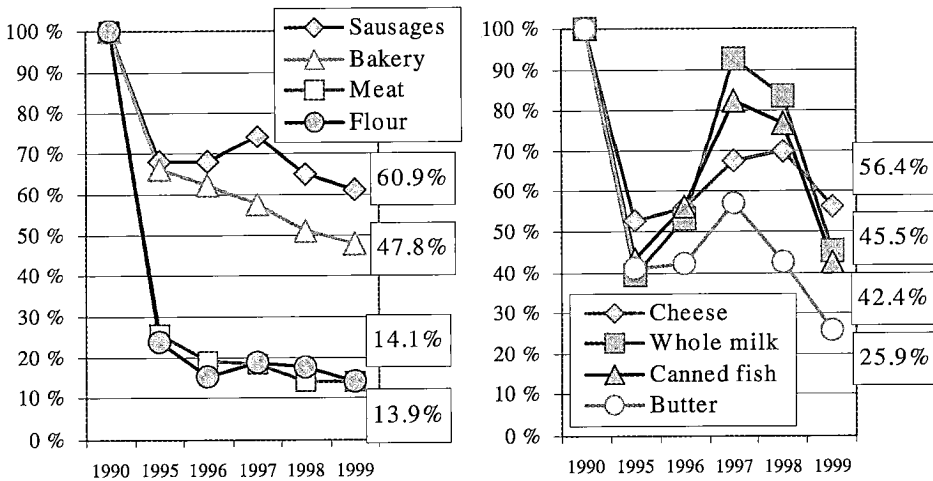
Figure 5. Share of food processing in Estonian manufacturing 1992-1999 (Statistical Office of Estonia 1999b, p. 100-101; 1999e, p. 247-248).

The output of food and most other processing industries followed the average rate of overall decline in Estonian manufacturing. Yet, transition crisis hit textile industry so badly that its share contracted from 13 percent in 1992 to 5 percent in 1993. Consequently, the relative significance of food processing increased to an overwhelming 45 percent and stayed above historic average for two years. Food sector's share in manufacturing returned to its previous level in the second half of the 1990s, but fell eventually in 1999 for two major reasons:

- (1) Wood and furniture industries have performed dynamic growth over the entire decade increasing their share in manufacturing by 9 percentage points between 1992 and 1999.
- (2) Russian economic crisis in the second half of 1998 brought the spectacular recovery of food processing to a dramatic end.

### 2.1.2. Food Production

Changing output volumes of Estonian food processing industries and their major products followed two basic development routes in the 1990s. One group of products was characterised by continuous decline throughout the whole decade (Figure 6). These industries usually lost their export opportunities and suffered serious losses on the domestic market. The changing environment such as removal of subsidised fixed prices, falling purchase power and deteriorating agricultural production engendered an irreversible decline in the meat and grain sector.



Figures 6 and 7. Production trends of selected food items in Estonia based on changes of production volume, 1990, 1995-1999, (1990=100%) (Statistical Office of Estonia 1999b, p. 102; 1999e, p. 267).

After an initial sharp drop, the other group of industries recovered by the middle of the 1990s as eastern trade relations revived again. Traditionally export-oriented industries such as dairy and fish processing boomed from 1995 to 1997. Production climbed back to as high as 60 to 95 percent of the 1990 reference level. The Russian economic crisis then broke the recovery in 1998; output in 1999 fell back to the 1993-1995 levels (Figure 7).

### 2.1.3. Industry Composition in Food Processing

In 1999, food industrial sales stood at 38.6 percent of the 1991 level calculated by constant prices. The large majority of food processing sub-sectors shared the fate of contraction in real term. Yet, some industries declined at a faster pace than others did. It brought about fundamental changes in the structure of the food processing by the end of 1990s.

*Meat production* and *grain processing* industries have been the biggest losers in Estonian food sector. Meat processors were unable to recapture their positions on the export markets, production diminished to 14 percent of pre-transition level by the end of the decade (Figure 6). Meat processing drew feed industry along to the steep downhill. The share of meat industry, close to one-fourth in the beginning of the transition period, slimmed to little over 14 percent by 1999. The *feed industry* contracted proportionally even more: its share reduced from 8 to 2 percent in seven years (Figure 8). *Milling* was severely hit by the liberal agricultural and trade policy of the country. Once a notable sub-sector, its production contributed only less than one percent annually to the Estonian food output during the years of independence.

*Beverages* gained weight between 1992 and 1999, however, the average growth of more than four percentage points conceals discrepant routes of the major beverage industries. The share of distilling was cut by half, counter-weighted by the dynamic expansion of beer manufacturing and soft drink production. The share of winemaking started from a negligible stage, but due to constant growth, it reached around one percent by the end of the decade.

The share of the collective category of other industries has fluctuated around ten percent in the entire observation period. Fluctuation is attributable to the fact that it includes numerous industries such as fruit and vegetable processing, starch production, confectionery, vegetable oil and other products. *Starch*, and *vegetable oil*, have minor shares, while the production of other foodstuffs have rapidly risen to more than three percent in 1999. *Confectionery* makes up a stable portion between 3 and 4 percent, while *fruit and vegetable processing* has kept its share between 1 and 2 percent.

Bakery and dairy industries have shown positive development. Although production of *bakery* products dropped to the fraction of the 1990 level, the relative share of the industry even increased. Bakeries almost entirely supply the



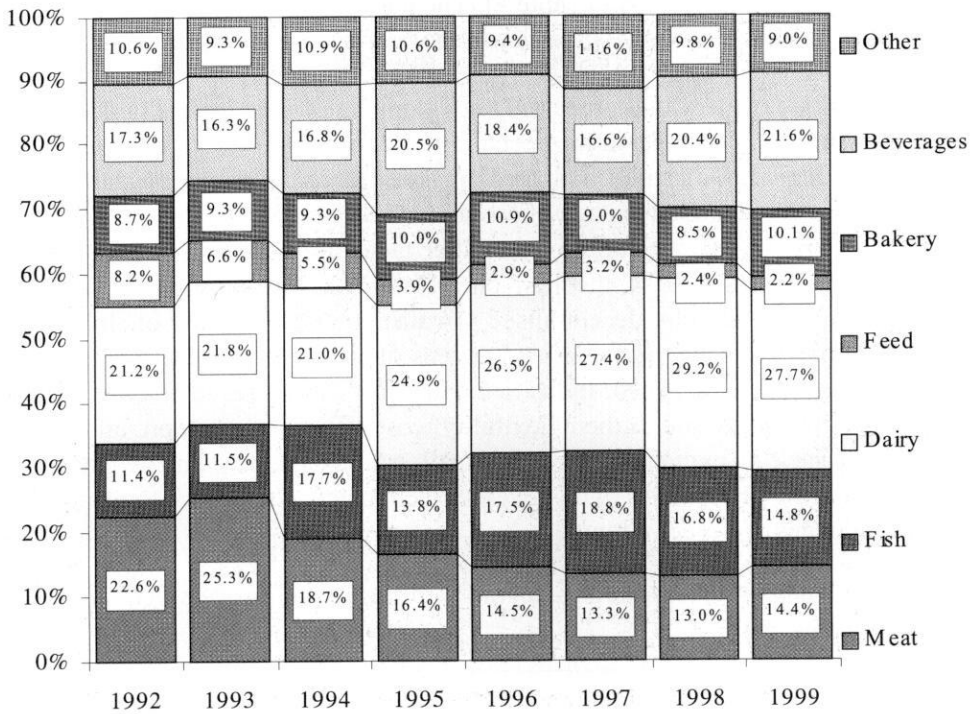


Figure 8. Sub-sectoral composition of the Estonian food processing, 1992-1999 (Statistical Office of Estonia 1999b, p. 100-101; 1999e, p. 247-248).

stable domestic market. The growing share of the *dairy industry* is also ascribed to the successful reorientation to stable sales targets such as the domestic markets and to a less extent, Western European export markets.

*Fish industry* has always been very export dependent. Since sales of processed fish was largely determined by the purchase power of eastern markets, the share of industry within food processing sector followed the fluctuation of export opportunities. The prosperity of fish industry culminated in 1997, when it accounted for almost one-fifth of the Estonian food processing output. The recession resulted in serious downsizing at the fish processing companies, although part of the industry – similar to dairy companies – managed to redirect export sales from CIS to other countries, thus total collapse was avoided.

#### 2.1.4. Number of Enterprises

Estonian food processing used to be heavily concentrated in the soviet era. There were altogether 48 large state-owned concerns prior to independence. The number of food processing enterprises multiplied intensely in the transition

period reaching 528 by 1998 (Table 4). The burst of growth was fuelled by two main factors just like everywhere else in the food sectors of Central and Eastern Europe:

1. State owned food processing conglomerates were often divided into smaller units in the decentralisation efforts of privatisation.
2. Hundreds of small and medium sized enterprises were established taking advantage of economic freedom.

In Estonia, the contribution of the latter factor to the growth of companies was stronger than that of the first one. Dairy was the only major industry substantially affected by decentralised privatisation. The number of small bakeries boomed over the past years and dozens of small meat and fish processing businesses were established. Industries with reasonably low entry costs gained sudden popularity. Due to their flexibility, cost-effective operation, and sometimes the lack of hygienic standards, small establishments competed successfully with large companies, which were too clumsy or ineffective to respond to the challenges of new environment.

*Table 4. Number of enterprises in the Estonian food processing industries, 1993-1998.*

Industry	1993	1994	1995	1996	1997	1998	Change from 1993 to 1998	
							in number of firms	in % (1993=100%)
Meat <sup>a</sup>	56	88	81	71	94	92	36	164.3
Fish	38	56	57	57	71	83	45	218.4
Fruit and Vegetables	13	18	13	15	17	16	3	123.1
Oils	3	3	3	4	3	4	1	133.3
Dairy	32	39	39	38	47	41	9	128.1
Milling	10	16	19	20	25	29	19	290.0
Starches	5	5	5	5	4	3	-2	60.0
Feed	14	20	22	19	21	18	4	128.6
Bakery	67	116	129	124	158	154	87	229.9
Confectionery	5	5	4	10	12	9	4	180.0
Other	12	22	23	20	40	35	23	291.7
Alcoholic	3	7	7	7	8	7	4	233.3
Wines	5	6	6	6	6	8	3	160.0
Beer <sup>b</sup>	13	13	14	12	13	14	1	107.7
Soft drinks	7	9	9	8	13	15	8	214.3
Tobacco	1	1	1	0	0	0	-1	-
<b>Total</b>	<b>284</b>	<b>424</b>	<b>432</b>	<b>416</b>	<b>532</b>	<b>528</b>	<b>244</b>	<b>185.9</b>

Source: Statistical Office of Estonia, Industry and Energy Statistics Section

Notes: <sup>a</sup>Including poultry processors. <sup>b</sup>Together with malt producers.

Despite the rapid growth of the number of companies, food processing industries continue to be under the control of large processors. The aggregate share of small operations stays moderate in most of the industries. In 1998, 62 meat processing companies with less than 20 employees did not hold even two percent of statistically registered sales of the meat industry. Similarly, the market share of small beer and soft drink manufacturers was less than one percent. In other industries, small enterprises employing less than 20 people attained higher weight in industrial sales. Seven small-scale enterprises accounted for 2.4 percent of the feed industry, 113 micro-bakeries controlled 5.5 percent of bread market, and 48 fish processors contributed with 9.3 percent to the output of fish industry.

### 2.1.5. Structure of Domestic and Export Sales

Although much less food is sold on foreign markets than in the pre-transition period, the food sector preserved its export orientation in the 1990s. Out of the large sub-sectors, dairy and fish industries accounted for the bulk of export sales in 1998. The sales of meat processing was primarily redirected to the domestic

*Table 5. Share of domestic market in sales revenue of Estonian food processing industries, 1994-1998.*

	1994	1995	1996	1997	1998
Meat	87.2	91.0	94.8	90.9	79.2
Poultry	n.a.	n.a.	98.8	99.2	98.5
Fish	25.9	22.0	23.9	20.3	31.4
Fruit and Vegetables	73.9	88.7	86.3	52.4	81.9
Oils	96.8	95.0	100.0	n.a.	n.a.
Dairy	70.1	66.6	67.7	65.5	74.9
Milling	100.0	99.3	100.0	99.5	98.4
Starches	100.0	100.0	99.4	98.0	95.5
Feed	99.8	99.0	98.2	96.9	97.2
Bakery	99.2	99.7	99.7	99.8	97.5
Confectionery	62.5	66.1	59.6	56.4	63.7
Other	82.6	57.8	58.9	71.6	73.0
Alcoholic	94.7	96.2	91.1	94.0	91.5
Wines	94.6	95.0	97.8	97.0	96.9
Beer	96.3	96.6	97.1	96.0	90.6
Soft drinks	70.2	71.1	63.9	68.5	71.8
Total	74.2	75.2	72.6	69.7	74.0

Source: Statistical Office of Estonia, Industry and Energy Statistics Section

market while the baking industry became entirely domestic oriented by the end of the decade.

Second-stage processing industries typically supply the domestic market with the exception of confectionery and soft drinks, where dominant companies pursue ambitious export strategy. Estonian beer manufacturers have also exported 5 to 10 percent of their production.

Transit trade is often a source of confusion. Estonia exported foodstuffs of over EEK 7 billion in 1998. Cocoa and cocoa preparations amounted to one-fourth of total food exports; the shipments were almost entirely re-exported sales to Russia and Ukraine. Re-exports made up 21.1 percent, 19 percent, and 63.2 percent of total foreign sales of dairy, fish, and confectionery products, respectively (Estonian Business Guide 1999, p. 110).

## **2.2. FDI in the Estonian Food Processing**

Estonia has been extremely successful in attracting food industrial FDI. The country has one of the most foreign-owned food processing sectors in Central and Eastern Europe. Among the Baltic countries, Estonian food processing has the highest foreign share in the capital structure. (Figure 4). Despite its success in international context, other Estonian manufacturing industries have even surpassed food processing in attracting FDI.

### **2.2.1. Food Industrial FDI in Estonian Manufacturing**

The sectoral composition of FDI influx is a function of privatisation schedules in Central and Eastern Europe. Privatisation started typically with manufacturing industries, since in most countries the privatisation attitude to services and even more to utilities was very hesitant and cautious. Foreign investors were active participants in the privatisation process, in fact privatisation was the primary source of FDI in the early years of transition.

The sectoral and time distribution of foreign direct investments in Estonia followed the international patterns. Manufacturing absorbed 40 to 50 percent of annual FDI inflows until 1995. The role of services and utilities increased only later in the 1990s.

Food processing sector did not receive as much foreign capital as its share in manufacturing output would have suggested. Three factors explain the relative lack of attractiveness in the early transition period:

1. Food processing ran into the first deep crisis of the new independence period. Eastern market connections were torn apart with the new borders, purchase power in domestic and export markets fell drastically. Concurrently, food processing was struggling with restructuring. *Dubiety concerning turbulent economic*

*environment as well as huge redundant capacities kept foreign investors away from an early entry.*

2. Privatisation of the largest food processing industries such as dairy, meat and grain processing fell under the authorisation of Article 32 of the Privatisation Law.<sup>10</sup> The special amendment granted preferences to raw material suppliers. *The unequal privatisation conditions squeezed out foreign investors from the largest industries in the initial phase of transition.*
3. *A commercial technique* was applied in the privatisation of the rest of food processing industries. *This opened the entry opportunities for foreign investors in most of the secondary stage industries, which are preferred targets of FDI. However, the share of these industries was not predominant in the Estonian food processing. Therefore, food industrial FDI did not show impressive results in a manufacturing comparison although big investment projects were accomplished in certain small- or medium-size food industries.*

The relative smaller weight of food industrial FDI can be recognised in the structure of aggregate company capital of Estonian manufacturing and food processing. Table 6 notifies that foreign capital attained controlling share in manufacturing, while foreign ownership stayed below manufacturing average even until the recent years. Nevertheless, *the high share of foreign capital in other Estonian manufacturing industries should not shadow over the success of food processing. Estonian food processing has proved its strong attractiveness to foreign direct investments in an international comparison.*

*Table 6. Share of foreign ownership in aggregate company capital of Estonian manufacturing and food processing 1996-1998<sup>a</sup>.*

	1996	1997	1998
<i>Manufacturing</i>			
Total company capital (in million EEK)	8,781.4	11,193.1	12,238.7
of which foreign capital (in million EEK)	5,838.9	6,661.9	7,621.6
share (in %)	66.5	59.5	62.3
<i>Food processing</i>			
Total company capital (in million EEK)	1,520.7	1,694.8	1,890.8
of which foreign capital (in million EEK)	451.5	525.1	827.8
share (in %)	29.7	31.0	43.8

Sources: Statistical Office of Estonia 1999c, p. 88, 94; 2000a, p. 88, 94.

Note: <sup>a</sup>Data indicate the status of December 31 in the respective years.

<sup>10</sup> For more details on the privatisation of Estonian food processing, see Sepp and Loko (1999).

## 2.2.2. Foreign Ownership in the Estonian Food Processing

Changes of ownership structure are shown in Figure 9, which provides a demonstrative summary of privatisation history and penetration of foreign investments to the sector. Privatisation of food processing was accomplished primarily between 1993 and 1996. State ownership fell to a minor share by 1996 when privatisation of all the large dairy, meat and grain processing companies were finally completed. The only industry, which stayed mainly in state ownership up until the end of the decade, was distilling. Domestic private share grew rapidly and became the dominant form of ownership by 1996.

Figure 9 enlightens the Estonian manifestation of the Baltic phenomenon: the “two-step ownership change”. State-owned capital was first transferred to domestic private owners in the privatisation process. Foreign investors have recently increased their share by purchasing stakes of the domestic shareholders. This does not mean that direct selling to foreigners was excluded from the privatisation of Estonian food processing. Foreign ownership jumped to nearly 30 percent right in the beginning of the transition period. Big investments into the second stage processing industries, primarily in beverages, tobacco, bakery and other food processing, raised the share of foreign capital right in the beginning of the transition period. Foreign share, however, did not move much for years afterwards. No additional large-scale investments were made after the

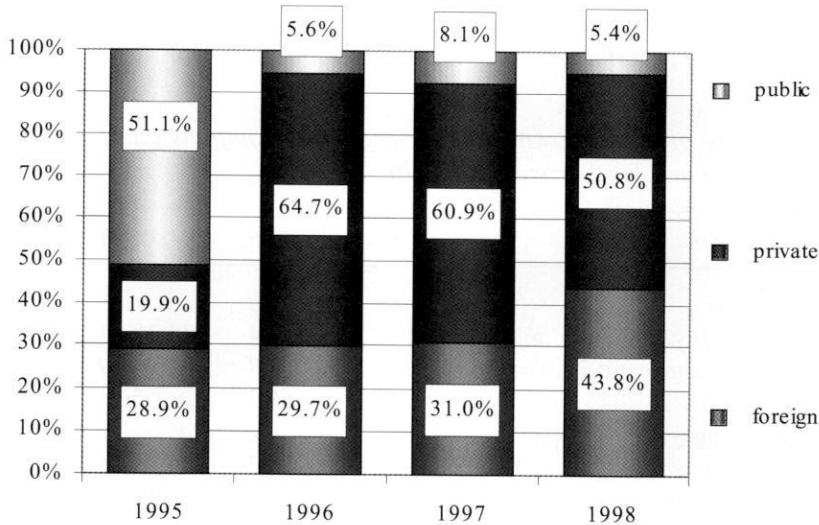


Figure 9. Ownership structure of the Estonian food processing in 1995-1998 (Statistical Office of Estonia 1999c, p. 94; 2000a, p. 94; direct data from Industry and Energy Statistics Section).

completion of privatisation, in fact, bitter divestment cases occurred in the tobacco or fish industries. In the second half of the 1990s, foreign owners appeared slowly in the first-stage processing industries such as dairy, fish and feed industries. Another distinct leap was made after 1997, when foreign investors purchased a considerable share of the meat industry and positions of FDI were reinforced in the dairy, beer, bakery and other food processing industries.

### 2.2.3. Special Characteristics of Food Industrial FDI in Estonia

Since common characteristics of food industrial FDI in the Baltic countries were discussed in the introduction, this point focuses on the distinctive features that characterise mainly Estonia.

1. An important and unique factor, which was expected to affect food industrial FDI inflows, was the renowned liberal attitude of Estonian trade and agricultural policy. FDI studies frequently discuss the *import-FDI substitution effect*.<sup>11</sup> In the case of Estonia, the idea would translate the following way: due to the low import duties of foodstuffs, foreign food manufacturers might prefer export sales of their foodstuffs to direct investments. This way multinational enterprises would increase production and take advantage of scales economies in their home bases, and fully benefit from the low import duties that the target country offers. Although liberal trade policy resulted in steep and immediate rise in the food trade deficit of Estonia, *food industrial FDI inflows did not prove the concerns about import-FDI substitution effect*. The high presence of food industrial FDI demonstrates the fact that – using the terminology of Dunning’s eclectic paradigm<sup>12</sup> – Estonian food processing sector bears signifi-

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<sup>11</sup> Developed countries are the largest FDI exporting countries, where the substitution effect of trade and FDI raises concerns from the opposite angle: attention is focused on the question whether FDI replaces export sales or complements them. For a thorough theoretical discussion and literature overview, see Caves (1996, p. 116-122). For a food industry specific interpretation and overview of food industry-based empirical studies, see Henderson et al. (1996, p. 122-125).

<sup>12</sup> Dunning (1985) set up his renowned eclectic paradigm in an attempt to synthesise historic FDI theories. He took over and improved the elements of Hymer’s and Kindleberger’s industrial organisation approach and Buckley’s internalisation theory and combined them into a new coherent theory of FDI determinants. Dunning argues that three aspects are necessary conditions of FDI. (1) Foreign investors must bear specific *ownership advantages* over competitors. (2) The benefits of investment should excel the benefits of exports or licensing (*internalisation advantages*). (3) Foreign production should be more efficient by using a combination of production factors in the host country as opposed to the corresponding set of production factors in the resident country of the investor (*locational advantages*).

*Table 7. Share of large-scale food processing companies in the aggregate company capital of Estonian food processing:*

	1996	1997	1998
Share in total company capital (in %)	85.5	87.6	84.5
Share in foreign owned company capital (in %)	94.9	94.4	96.0

Sources: Statistical Office of Estonia 1999c, p. 94; 2000a, p. 94.

Note: Figures of enterprises employing over 50 people.

cant *locational advantages*. In other words, the arrival of foreign investors suggests that the overall benefit of direct investments surpass that of mere exporting or licensing.

2. *Another special characteristic of food industrial FDI in Estonia is its extreme concentration.* Table 7 illustrates one dimension of concentration: while companies with over 50 employees have 84.5 percent of total company capital, they hold 96 percent of foreign-owned capital. This fact is not unique, since foreign companies tend to allocate their investments into large affiliates in the CEE countries. Another fact demonstrates the concentration of food industrial FDI even better: less than ten subsidiaries absorbed over three-quarter of food industrial investments in Estonia. High concentration is partly attributable to the fact that Estonia is the smallest of the three Baltic countries.
3. *The distribution of geographical origin* also carries a very peculiar feature: *a one-country dominance*. Nearly half of total food industrial FDI originated from Estonia's northern neighbour (Table 3). The *controlling role of Finnish capital* in food industrial FDI is not at all unanticipated. Geographic proximity, close economic and cultural relations and the difference in economic power of the two adjacent food sectors predetermined a unique role for Finnish food processors in Estonia.

#### **2.2.4. Industrial Distribution of Foreign Capital**

Industrial distribution of foreign capital followed the tendencies observed in the food processing sectors of other Central and Eastern European countries (Point 1.2.2. on pages 25-26). The fish, dairy and grain processing industries usually attract little or limited amount of foreign investments, while beverages are popular targets of FDI across the CEE region. Distilling tends to be the last food sub-sector to be privatised in many countries, so its high share of state ownership in 1998 is not remarkable either.



*Table 8. Industrial distribution of foreign capital in Estonian food processing, 1998.*

Industry	Total company capital (million EEK)	of which			Share of foreign capital (%)
		public	private	foreign	
Meat	422.6	0	149.2	273.4	64.7
Fish	134.6	0	131.8	2.8	2.1
Fruit and vegetables	74.4	0	5.7	68.8	92.4
Dairy	331.3	0	282.0	49.4	14.9
Milling	23.7	0	23.7	0.0	0.0
Feeds	39.4	0	38.2	1.2	3.0
Other	94.3	0	83.9	10.4	11.1
Bakery	114.2	0	63.2	51.0	44.7
Distilling	160.4	122.6	30.0	7.8	4.9
Beer	131.4	0	23.9	107.4	81.8
Soft drinks	242.9	0	25.0	217.9	89.7
<b>Total</b>	<b>1,769.3</b>	<b>122.6</b>	<b>856.6</b>	<b>790.1</b>	<b>44.7</b>

Source: Statistical Office of Estonia, Industry and Energy Statistics. Section

Note: Figures include companies with over 20 employees.

Other industries diverge from Central and Eastern European tendencies. Foreign investors usually do not favour meat industry, fruit and vegetable processing, and bakery in the region. Yet, FDI has a very strong or even dominant ownership share in these three industries of Estonia.

Market power has an unquestionably decisive role in the industrial distribution of FDI. The unusually high share of foreign capital is primarily ascribed to the special market structure. Foreign investors favour concentrated food industries, where they can acquire high or dominant market positions. After having established themselves on a particular market, they often accelerate the process of industrial concentration. The current research introduces the concept of “FDI-concentration maps” to provide a consistent explanation for the uneven industrial distribution of food processing FDI in the Baltic countries (Chapter 6).

## **2.3. Industry Case Studies**

### **2.3.1. Dairy Industry**

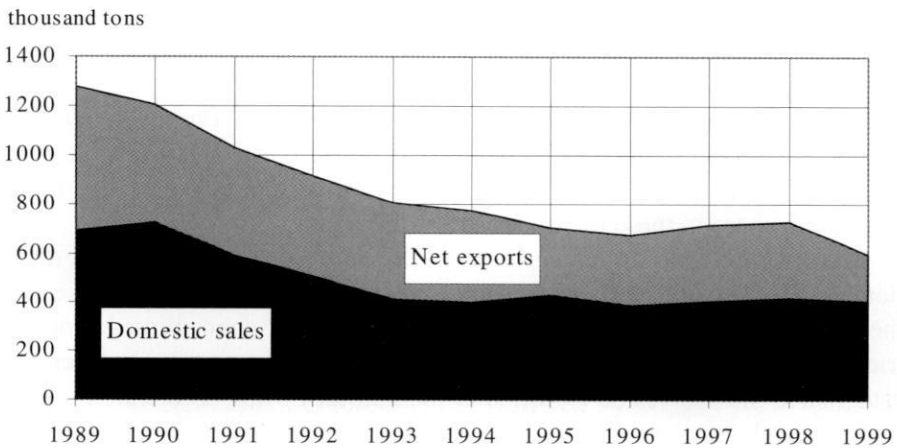
Milk production has long traditions in Estonia. Climatic conditions and good quality of pastures favoured the emergence of dairy processing that was well

advanced as early as between the two world wars. Estonia used to be a butter exporter to Western Europe.

Cooperative movement of milk producers followed Scandinavian tendencies.<sup>13</sup> Dairy companies were nationalised in the soviet period and developed to supply eastern markets. Dairy plants with extensive processing capacities were created primarily in Central and Southern Estonia. Production used to be concentrated in a few corporate units, the industry consisted of 9 dairy companies plus 2 dairy and meat processing enterprises in 1989.

### 2.3.1.1. Production and Exports

In the last years of the soviet era, meat and dairy shared the first place in the rank of industries. Both of them contributed 34 percent to the overall Estonian food processing output. The importance of meat processing decreased steadily in the transition period, while dairy industry preserved or even increased its share. Since 1994, dairy processing has been the predominant food industry. It accounted for nearly 28 percent of total food processing output even in 1999, a year after the Russian crisis (Figure 8).



Notes: in order to correct the distortional effects of transit export, "net exports" are calculated as production minus consumption. Both production and consumption figures are volume terms and include the entire range of dairy products as reconverted to milk.

Figure 10. Production of the Estonian dairy industry by major destination in 1989-1999 (Estonian Dairy Association).

<sup>13</sup> Starting conditions were similar to other Baltic Sea countries. Assuming a history without soviet occupation, Estonian farmers would most probably have continued to dominate the vertical relations in the dairy chain, just as it happened in Denmark or Finland.

The output of dairy industry fell continually in the 1990s, production virtually halved over ten years between 1989 and 1999. Figure 10 illustrates that the decline was caused by two main factors:

1. A considerable drop was experienced in exports directly subsequent to gaining independence. Net exports stabilised on a lower level through the midyears of the 1990s. The Russian financial crisis shook the thriving dairy exports eventually in 1998. Net exports were cut by half from 1998 to 1999.
2. The other factor that dragged down dairy production was the fall of domestic demand in the beginning of transition. The strict fiscal policy and deteriorating purchase power pushed the consumption of dairy products down to 50 percent in just three years between 1990 and 1993 (Figure 10).

*Table 9. Estonian dairy exports by main product groups and destination countries, 1996-1998.*

	1996		1997		1998	
	(tons)	(%)	(tons)	(%)	(tons)	(%)
Non-concentrated milk and cream	2,695	100.0	6,082	100.0	3,885	100.0
of which: Russia	2,575	95.5	5,009	82.4	3,546	91.3
Ukraine	35	1.3	520	8.5	49	1.3
Netherlands	25	0.9	0	0.0	54	1.4
Concentrated milk and cream	24,509	100.0	28,487	100.0	17,716	100.0
of which: Netherlands	13,921	56.8	17,161	60.2	8,148	46.0
Japan	3,314	13.5	5,855	20.6	4,252	24.0
Russia	960	3.9	1,373	4.8	1,171	6.6
Butter	15,867	100.0	28,792	100.0	18,144	100.0
of which: Russia	8,485	53.5	18,372	63.8	10,110	55.7
Latvia	576	3.6	3,238	11.2	3,431	18.9
Ukraine	3,662	23.1	3,041	10.6	847	4.7
Cheese and curds	6,267	100.0	9,028	100.0	10,988	100.0
of which: Russia	4,314	68.8	8,454	93.6	7,317	66.6
Latvia	0	0.0	29	0.3	2,243	20.4
Finland	24	0.4	3	0.0	561	5.1
Cream, yoghurt and kephir	16,563	100.0	41,486	100.0	35,188	100.0
of which: Russia	15,731	95.0	39,081	94.2	24,607	69.9
Latvia	350	2.1	1,336	3.2	8,125	23.1
Ukraine	347	2.1	725	1.7	1,776	5.0

Source: Statistical Office of Estonia 1999d, p. 111-112.

Consumption revived slightly by the end of the decade due to slowly recuperating real incomes and the prolificacy of product assortment. A wide assortment of yoghurts, curd desserts, flavoured spreads and other new products were introduced.

Estonian dairy exports fully relied on the recovery of CIS markets in the middle of the 1990s. Russia and Ukraine received the overwhelming proportion of exported dairy products through the boosting period of 1995 to 1997. CIS countries absorbed over 90 percent of exported cheese, curd, yoghurt and cream and 60-70 percent of butter in 1997 (Table 9). A definite drop can be observed already in 1998, but the actual harm caused by the sluggish eastern markets was experienced in 1999. Most of the export losses in 1999 were attributable to the diving eastern sales (Figure 10).

### **2.3.1.2. Privatisation and FDI**

The privatisation of dairy industry was subject to Article 32 of the privatisation law. Similarly to other first-stage processing industries, the regulation granted privileges also to cooperatives formed by milk producers. They were often established especially for privatising dairy enterprises.

A decentralised privatisation method was adapted in the dairy sector. The large state-owned dairy companies consisted of numerous subsidiary units usually scattered in a wide area. Therefore, the 11 large companies were detached into 36 smaller manufacturing facilities. Privatisation proceeded very rapidly, eleven units were sold by the end of 1994 mainly to milk producers' cooperatives. A year later, the entire dairy processing industry was in private ownership (Sepp and Loko 1999, p. 84). Milk producers obtained approximately 60 percent of the production capacities, whereas domestic private persons and companies purchased the remainder.

The Estonian dairy industry has attracted a wide palette of foreign capital after the completion of privatisation process. Financial investors bought shares in two companies: Võru Juust is in Swedish, Rakvere Piim in British ownership. A former customer from Afganistan has decided to invest into Lacto Ltd located in Rapla, Central Estonia. Two very strong and renowned strategic investors are also present in the industry. Finnish Valio Oy established a new facility near Tartu in 1995, while Dutch G van der Bergh Nijmegen B. V. purchased Põlva Piim, the largest subsidiary of Ühinenud Meireid (United Dairies) in early 2000.

A thorough inspection of the above foreign investment projects unveils numerous interesting characteristics:

1. In the beginning, foreign investors sidestepped the largest companies in the industry. Instead, small- and medium-scale dairies raised their interest. Võru Juust and Rakvere Piim both belong to the lower medium category measured on the scale of Estonian dairy industry. Even Lacto was not among the biggest companies

- at the time of acquisition. The one exception of a big investment target is most recently purchased Põlva Piim.
2. Most investors bought an existing company. The green-field investment of Valio Oy may be considered criticism about the industrial environment and the overall status of companies. The main concerns did not necessarily relate to production technology, rather to the special privatisation techniques and the low productivity of inert former state-owned processors.
  3. Although dairy FDI is usually domestic market-driven in the Central and Eastern European region, this approach has not at all been obvious in the traditionally export-oriented Estonian dairy industry. Võru Juust and Lacto are heavily geared to export sales, so is Põlva Piim. However, the new Dutch owner of Põlva Piim recently announced its wish to shift the previous focus to a strenuous presence on the domestic market. Valio Eesti has clearly established itself on the domestic market, and Rakvere Piim pursues a similar strategy. On the other hand, even Valio Eesti and Rakvere Piim have realised some export shipments, partly through using the business relations of their foreign owners.

### 2.3.1.3. Market Structure

The declining domestic and export markets induced a proportional intensification of competition among the Estonian dairies. As export sales were jamming, production was redirected to the domestic market. A rather fierce situation emerged in 1998, when domestic market suddenly became uncommonly saturated, and oversupply imposed a downward pressure on dairy prices.

Redundant capacities became an acute problem. At the same time, the companies have been in constant need of modernisation concerning technology and management methods. The changing consumption patterns have provoked the renewal of product assortment and installation of completely new processing lines, while competition has necessitated fresh and perceptive mentality to apply the entire set of modern management techniques.

Several dairies recognised that consolidation may be an effective way of survival. Estonian dairy processors have sought opportunities since the midst of the 1990s for joining forces in order to lower costs and arise on the market as a mightier player. Three groups of various level of synergy were formed over the recent years. (1) The dairies that belong to ETFC Group<sup>14</sup> are linked together

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<sup>14</sup> ETFC group is a private concern established by a group of former socialist leaders. They first acquired Tallinn Dairy Plant and owned close to 40 percent of the Estonian food industry in 1998 (Rislakki 1998). As of 1997, ETFC Group included the following dairies: Tallinna Piimatööstus, Pärnu Meierei, Kohuke, Rävala Piim, and Piimamees (Eke-Ariko 1998, p. 25).

Table 10. Concentration ratios in the Estonian dairy industry in 1997.

	Total industry		Domestic market shares	
	$CR_4$	$CR_{10}$	$CR_4$	$CR_{10}$
Concentration ratios - independent companies	48.6	85.2	48.2	84.9
Concentration ratios - with strategic alliances <sup>a</sup>	81.0	99.8	75.8	99.7

Source: own calculations based on figures from Estonian Dairy Association and Eke-Ariko (1998).

Note: <sup>a</sup>Sales of dairy processors belonging to the three alliances were combined and considered three companies.

by the same owners, however their cooperation in terms of raw material procurement, production, market strategy remained rather loose. (2) The Central Cooperative Eesti Piim was established in 1995. It encompasses 12 cooperative dairy processors. Eesti Piim implements also a rather loose level of cooperation by coordinating the activities of its members in terms of processing, marketing and export. (3) The alliance of Mulgi Meier, Põlva Piim and Paide Piimatööstus conceived as early as in the middle of the 1990s, although collaboration was strengthened step by step only in the subsequent years. In 1996, joint activities of Ühinenud Meiereid (United Dairies) covered harmonised raw milk procurement, sales and marketing. A virtual merger into one manufacturing company was concluded in the beginning of 2000. Ühinenud Meiereid achieved the tightest form of coalition among the three associations of dairy processors.

Table 10 presents the concentration ratios for the Estonian dairy industry based on 1997 sales figures. First, companies were considered as separate entities on the market. Then  $CR_k$  indicators were calculated by combining the shares of member dairies of strategic alliances or companies of the same owners. Since these associations did not incorporate members formally in one single business in the 1990s, the independent company-based  $CR_k$  is relevant until the end of the decade. However, concentration can be considered steadily growing as the group members gradually reinforce their joint activities or eventually merge.

#### 2.3.1.4. Vertical Relations to Raw Material Producers

Although milk in general has been sufficiently available through the 1990s, strong competition emerged among processors for quality raw material. The structure of milk production became fragmented, since the milk volume produced by enterprises fell significantly with a concurrent increase of milk production by individual farms (Figure 11).

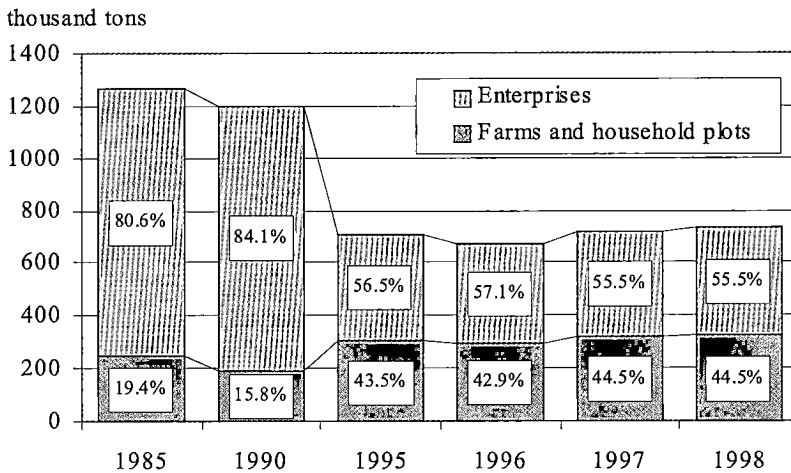


Figure 11. Structure of Estonian milk production by groups of agricultural producers, 1985-1998 (Statistical Office of Estonia 1999a, p. 112-113; Snille 1999, p. 95).

Unlike elsewhere in Central and Eastern Europe, milk farms in Estonia are not necessarily inferior to large milk producing enterprises in terms of quality and yield. In fact, farms and household plots have achieved higher average yield per cow in the end of the 1990s. Dairy processors, however, are reluctant to get involved in energy-consuming scattered raw material procurement, they prefer large shipments at a time. Furthermore, some of the prosperous processors such as rapidly expanding Tapila AS, Valio's production subsidiary, have established a stable supply base by making long-term contracts with their best milk producers. Suppliers of elite or high-grade milk are encouraged with special bonuses. These augmentations inspire growth of the successful producers and elimination of inefficient or too small farms. Nevertheless, this approach does not apply to all dairy companies. The negotiating power between processors and producers is greatly influenced by the quality and quantity producers can offer. Many processors have tried to economise on raw material costs and "afforded" delayed payments to farmers, which have exacerbated vertical relations. The negotiating power of small individual farms or suppliers of lower quality is obviously very limited. The concrete example of Valio's subsidiary proves that long term relations between processors and high-quality milk suppliers can bring mutual satisfaction in the dairy chain.

### 2.3.1.5. Performance

Performance of the dairy industry reacted sensitively to the fundamental market changes at the end of the 1990s. Industrial profitability was almost 2.5 percent

in 1997. Due to the exporting difficulties, dairy industry accumulated two percent loss in the subsequent year. A slow recovery can be witnessed in 1999, when aggregate profitability was again over one percent.

The large eastern export oriented dairies recorded essential losses, while other dairies, which relied on the domestic market or western exports, were not hit as badly. Many exporting companies have shifted focus onto domestic market, which further intensified the tough competition. Domestic market power became the ultimate corporate benchmark for success in the Estonian dairy industry. In 1999, Ühinenud Meiereid was the market leader, Tallinna Piimatööstus (ETFC Group) ranked second with a minor difference (Figure 12).

Foreign-owned dairies strengthened their positions as extensive development projects started to pay off. The market shares of Tapila and Rakvere Piim grew impressively compared with their shares in the middle of the 1990s. Lacto and Võru Juust had relatively small shares in the domestic market, but due to their solid export sales, they remained considerable participants in the overall structure of dairy industry.

#### 2.3.1.6. FDI-Related Remarks in International Comparison

Foreign investments in the Estonian dairy industry have some peculiar aspects in comparison to other dairy industries in the CEE region.

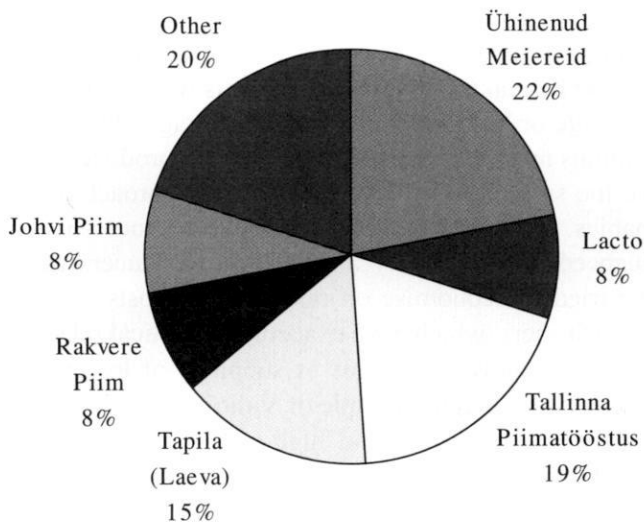


Figure 12. Structure of the Estonian dairy market based on sales, 1999 first half (Estonian Investment Agency, Food Processing Industry Overview).



1. When foreign investors enter the dairy industry in the bigger transition economies in Central Europe, they are usually motivated primarily by the domestic market. Foreign investors apparently have great interest in the domestic market also in Estonia, although FDI projects in the dairy industry also indicate the attractiveness of export opportunities.<sup>15</sup>
2. A special feature of foreign capital in the Estonian dairy industry is refrainment from active participation in the consolidation process. In order to ensure an expansion of domestic market power, foreign investors apparently opted for corporate growth as opposed to acquisition of new subsidiaries. Foreign investors commonly pursue a very aggressive market capturing strategy in the dairy industries of other Central and Eastern European countries. In Estonia, they have taken a more passive position, which also has proved to be an efficient market power building approach.

The Estonian dairy industry has already drawn sizeable foreign capital over the past few years. The domestic market can hypothetically absorb one or two more strategic investments and there is still place also for export-motivated FDI. Although entering the Estonian dairy industry is not an easy task any longer. Green-field investment takes up financial resources, while acquisition of existing facilities should be done with utmost care in an industry still suffering from redundant processing capacities.

### **2.3.2. Meat Industry**

Meat processing has always been an important sub-sector within the Estonian food sector. Although it lost weight essentially through the recent years, it still made up 14.4 percent of total food processing sales in 1999.

#### **2.3.2.1. Production**

The production of meat and meat products totalled nearly 200 thousand tons at the end of the 1980s, when capacity utilisation used to be at its maximum. Internal markets of the Soviet Union purchased the surplus of the Estonian meat industry. The situation changed dramatically after 1991, when new borders detached the tight segments of the food supply chain. Estonian meat producers lost their access to cheap feed, which was previously originated from other

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<sup>15</sup> An analogous feature was identified in the case of foreign investments in the Lithuanian dairy industry. Hence, this aspect might be considered a common feature of the Baltic dairy sector. It is ascribable to historic reasons, climatic advantages, and an overall competitiveness of Baltic dairy processing.

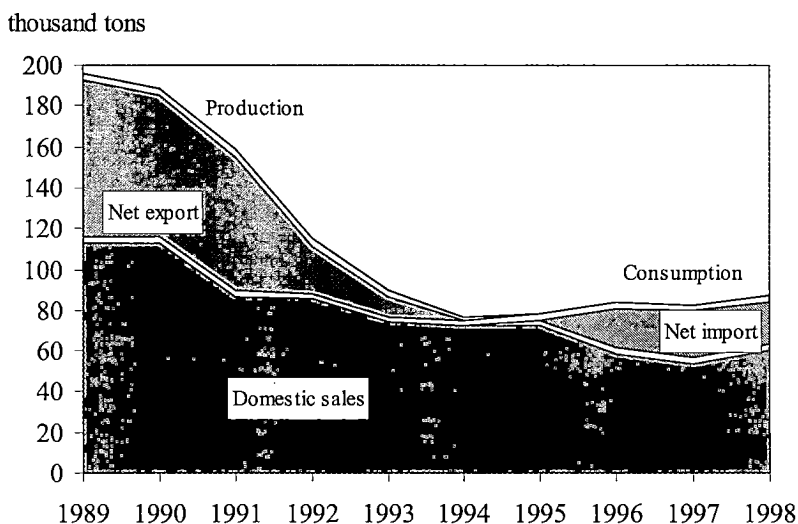


Figure 13. Composition of domestic and export sales in the Estonian meat production, 1989-1998 (Ministry of Agriculture of Estonia).

regions of the Soviet Union. Simultaneously, meat processors lost the opportunity of selling the surplus output in eastern markets. Companies in the vertical segments of the meat chain found themselves in a “squeeze-situation” pressing painfully at both ends. The survival of meat producers, slaughterhouses and processors were jeopardised by pressing prices and fading foreign markets.

The position of meat enterprises was further impaired by the liberal foreign trade policy of Estonia applied since 1993. In the middle of the 1990s, imported meat became a sudden rival for domestic meat processors, who were used to a situation of huge excess outputs. Meat import jumped from nearly zero in 1992 to 30 thousand tons in 1998, when imports made up already 36.5 percent of the Estonian meat market (Figure 13). Consumption decreased in the beginning of the 1990s, but remained stable afterwards. Bankruptcies of meat producer owned processing companies were inevitable in such a pressing situation. However, market environment did not encumber the boom of small-scale slaughterhouses. They had low amount of fixed assets and provided competitive prices on the local markets by ignoring hygienic and veterinary requirements and using short-cut channels to the consumers.

### 2.3.2.2. Market structure

Meat production used to be very concentrated over the soviet period; the industry included eight large companies (lihakombinaats) with 13 processing factories in 1991. After regaining independence, meat processing companies have

*Table 11. Status of the privatised Estonian meat processing companies, end of 1999.*

Company	Production capacity before privatisation (tons/shift)	Year of privatisation	Share of meat producers/ meat producing cooperative	Operating Status
Paide LK	14	1994	majority/Järva Lihahühistu	bankrupt in 1997
Haapsalu LK	10	1994	majority/Läänemaa LÜ	bankrupt in 1996
Tartu LK (Võru)	125 <sup>a</sup>	1994	majority/Põllumajandustulundus	bankrupt in 1998
Pärnu LK	30	1994	majority/Pärnu LÜ	self-liquidation in 1998
Valga LK	16	1994	majority/Valgamaa LÜ	operating
Saaremaa LPT	15	1993/94	majority/Saaremaa LPÜ	operating
Kohtla-Järve LT	n.a.	1994	majority/Pandivere LÜ	operating
Narva LT	n.a.	1996	majority/Pandivere LÜ	bankrupt in 1996
Tartu LK (Tartu)	125 <sup>b</sup>	1994	one-third of shares	bankrupt in 1998
Tallinna LK	130-150	1995	majority/LÜ Harama	bankrupt in 1996
Võhma LK	75	1995	majority/Agrofirma Pärnu	bankrupt in 1997
Rakvere LK	120	1995	one-third of shares	operating
Kõrgessaare LK	n.a.	n.a.	majority/KELP	bankrupt in 1999

Sources: Estonian Meat Association; Snille 1999

Note: <sup>a,b</sup>The combined production capacity of the two units of Tartu Lihakombinaat was 125 tons/shift.

witnessed fundamental changes. The Estonian meat industry has been specially characterised by unceasingly changing ownership and production structures over the past years.

Up to the beginning of the 1990s, meat products were manufactured exclusively by "lihakombinaats" that often had their own slaughtering facilities. Small meat processing enterprises were missing from the palette. Vertical relations between raw material producers and meat processors were tight. The concrete size of the large meat processing companies differed considerably. Meat industry consisted of three huge companies, one medium-scale and five smaller ones. In 1991, the share of the four largest companies reached 70 percent of total processing capacity in the meat industry. Facilities were evenly distributed among the counties. Most of the companies used obsolete technology, only the new plants of Rakvere and Saaremaa meat processing companies and part of Võhma plant met modern production and hygienic standards.

The large-scale slaughterhouses and meat processing plants were privatised based on Article 32 of the Privatisation Law. Meat producing farmers and their cooperatives had priority to purchase shares in the processing firms. Meat producers took advantage of the opportunity and acquired over 70 percent of the

total company capital of meat processing industry. Estonian private persons and legal entities owned the rest of the aggregate company capital.

Meat producers soon after acquiring the processing firms had to face with shrinking markets, and especially in the case of pork, the growing prices of imported feed (Martikainen 1999, p. 19). Under-utilisation of capacities became a common problem in nearly all of the processing companies. This, in turn, resulted in a large wave of bankruptcies in the second half of the 1990s.

Table 11 reveals the substantial changes in the market structure through the 1990s. Nine out of the 13 soviet-time facilities went bankrupt, only four of the formerly state-owned meat processors were in operation at the end of 1999. Simultaneously, many new slaughterhouses and meat processors entered the market. Some of the new firms were created by splitting the existing large units or bankrupt companies, but the majority of the establishments are private entrepreneurs. In 1999, the Estonian meat industry included 281 meat companies of which 264 were small-scale enterprises. Most of them had one or a few employees, undersized capacity and inadequate hygienic conditions. The transparent market structure of pre-independence time, when the industry consisted of eight companies, changed by the end of the 1990s. Market structure became largely polarised: 17 companies accounted for 90 percent of Estonian meat processing output, while 94 percent of the enterprises contributed with only ten percent to total meat production. In 1999, twelve of the big companies encompassed the entire line of meat production from slaughtering to finished products, the rest of the large companies specialised in processing or cold storage. Out of the 264 small-scale enterprises, 184 have merely slaughtering activities.

The structure of market power was redrawn also among the big players. Since three of the former four largest meat processing companies went bankrupt, the fourth one, Rakvere Lihakombinaat, gained an overwhelming market leadership. The share of Rakvere meat plant reached 35 percent on the domestic market in 1998, which was also greatly attributed to the company's state-of-the-art technology.

Tallegg, another major company of the Estonian meat processing industry, specialises in poultry processing. The company dominates the domestic poultry market and holds tight vertical relations to poultry and egg producers. The share of Tallegg is over 50 percent in the domestic poultry market. It is the only poultry processing company, which procures the majority of its raw material domestically.

### **2.3.2.3. Ownership and FDI**

The changing market structure and several bankruptcy cases reordered the ownership composition of the meat industry. Meat producers' cooperatives have lost their dominant share in the aggregate company capital within the industry, the

share of domestic private persons and private companies increased concurrently.

Foreign investors became interested in the consolidating Estonian meat markets. Successful large companies with dominant market positions and promising export prospects constituted the primary targets. Finnish HK Ruokatalo bought the market leader AS Rakvere in 1998. In the poultry processing industry, a foreign financial investor acquired a minority share in the dominant poultry manufacturer. Foreign ownership in the aggregate company capital of the Estonian meat industry increased to 60 percent due to the high capital value of Rakvere Lihakombinaat. The ownership share of domestic meat producers dropped below 20 percent, while private persons, employees and other investors hold over 20 percent.

Foreign participation became predominant in the meat processing industry by the end of 1999. Foreign investors had waited cautiously until market structure in the industry cleared up, the inefficient processors were eliminated and the leading processing companies reinforced their positions. The largest foreign direct investment was made only when concentration advanced far enough in the industry. The target of the investment and the attainable market position were considered thoroughly.

It is unlikely, that the Estonian meat industry would attract additional foreign strategic investments due to the current set-up of market positions. Nevertheless, the share of foreign ownership has already grown in the recent years as the foreign owner decided to purchase the remainder of shares in Rakvere Lihakombinaat. Furthermore, foreign ownership share may increase also by potential company acquisitions performed by the leading processors.

Estonian meat processors will have to focus on upgrading their technology in order to comply with the strict EU regulations. The number of slaughterhouses and meat processing facilities is expected to drop in the coming years as EU hygienic and sanitary measures are gradually enacted.

### **2.3.3. Fish Processing Industry**

Fish processing is an important sub-sector within the Estonian food industry. It employed over 7,500 people and made up 0.5 percent of the country's entire GDP in 1998. Fish catching and processing has a significant influence on the subsistence of rural people in remote coast areas. Fish processing was one of the country's major export earners in the late 1990s; it alone accounted for 5 percent of the country's total export sales in 1998.

Fish processing was created and developed in the soviet regime. The industry was designed to be part of a huge fish supply mechanism. On the soviet market, Estonia became the main manufacturer of canned fish products with 250 million of cans annually.

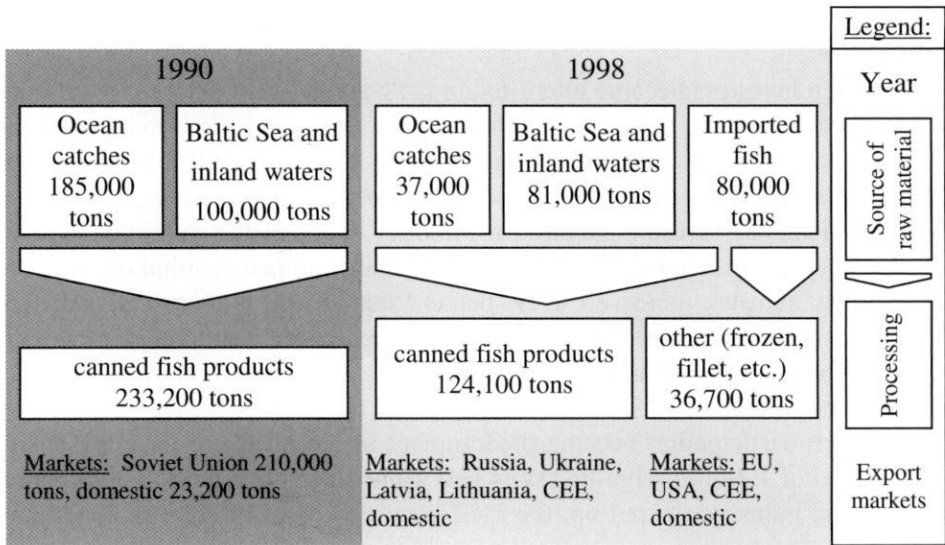
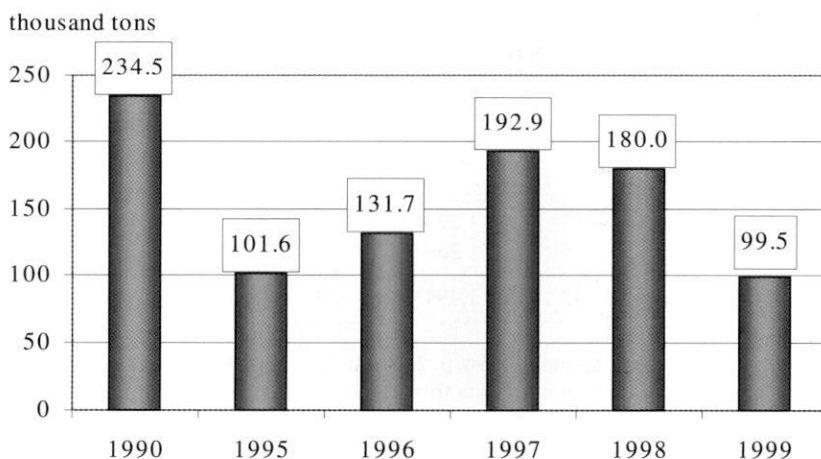


Figure 14. Changes in the Estonian fish catching and processing structure between 1990 and 1998.

Raw material suppliers underwent strong consolidation in the 1990s. The number of fishing kolhoses reaching almost 100 in 1950 declined to 8 by 1992. Most of the fish used to be caught by the ocean fleet near to the coasts of West Africa and South America. (Saron 1999) In the 1990s, ocean catches decreased with a concurrent increase of Baltic Sea catches. The Estonian offshore fishing fleet decreased from 75 vessels in 1991 to 15 vessels in 1999. The total fish catch amounted to 120 thousand tons in 1998, of which 70 percent originated from the Baltic Sea and inland waters and 30 percent came from ocean catches. An additional 80 thousand tons of raw material is imported mostly from the Nordic and other European countries (Figure 14).

### 2.3.3.1. Production and Markets

Fish industry experienced a deep crisis in the beginning of the 1990s due to loss of abundant raw material from ocean catch and the breakdown of the soviet fish trading patterns. Only 23 percent of the capacities were utilised, and the majority of production was redirected onto the domestic market. Fish processing companies recaptured the traditional eastern markets successfully in the middle of the 1990s. Production growth was impressive in 1997 and 1998, when total output approached 70 percent of the 1990 level (Figure 15). The fact, that fish markets were booming again between 1996 and 1998, postponed real restructuring and predicted the ultimate crisis of the industry.



*Figure 15. Fish production of Estonia (including canned fish) between 1990 and 1999 (Statistical Office of Estonia 1999b, p. 102; 1999e, p. 267).*

Fish industry has been the most export-oriented sub-sector in the Estonian food processing. Up to the beginning of the 1990s, 80 to 90 percent of its output was sold outside Estonia. The share of export sales remained very high even in the 1990s (Table 12). Major foreign markets continued to be Russia, Ukraine and Belorussia. The Russian crisis resulted in a 40 percent drop of canned fish prices within a week in August 1998. In the beginning of 1999, prices went up again slightly. Eastern fish exports showed some signs of recovery, until they were finally hit by a regulation passed in October 1999 by which Estonia could not export fish even by intermediary off-shore companies.

The most innovative and intelligent firms long ago recognised the risk of having all eggs in one basket. They have gradually shifted their product-mix from canned fish to frozen fish, burgers, fillets and other delicacy products during the recent years. Consequently, the share of seafood and other processed fish products reached already 16 percent of total Estonian fish production in volume terms in 1998. The main export markets for frozen, chilled, smoked and delicacy fish products have been the European Union and the CEFTA countries.

Domestic fish market presents a small but dynamically growing demand. The value of domestic sales doubled between 1994 and 1998, reaching a share of 20 percent of industrial sales by the end of the decade (Table 12).

Domestic fish demand has always been met by Estonian production. Fish consumption is higher than the national statistics suggest, since 50 percent of actual consumption is estimated to flow through the marketplace originating from unregistered processors. These small enterprises operate in poor hygienic

*Table 12. Share of export and domestic markets in total sales of Estonian fish industry, 1994-1998.*

Sales	1994		1995		1996		1997		1998		1999 <sup>a</sup>	
	million EEK	%	million EEK	%	million EEK	%	million EEK	%	million EEK	%	million EEK	%
Export	943	84.7	897	83.7	1,225	82.0	1,541	88.7	1,497	79.8	1,275	79.7
Domestic	170	15.3	175	16.3	269	18.0	196	11.3	380	20.2	325	20.3
Total	1,113	100	1,072	100	1,494	100	1,737	100	1,877	100	1,600	100

Sources: Statistical Office of Estonia 1999e, p. 244; Estonian Association of Fishery.

Note: <sup>a</sup>Figures for 1999 are preliminary data from Estonian Association of Fishery.

and sanitary conditions and use uncontrollable sales channels to gain advantage over the large fish processors. The lenient sanitary standards did not allow eliminating these enterprises before 1999. In January 2000, a new inspection law was passed that assures stricter standards and supervision.

### **2.3.3.2. Ownership and FDI**

Privatisation of the fish industry started in 1993. The sales of processing firms were open and no special privileges were granted to raw material producers. Yet, fishing kolhoses, and employees and managers of the processing facilities were the most active participants in the privatisation purchases. By the time the fish industry was entirely privatised in 1997, the large majority of assets were owned by domestic private persons and companies. Since the purchases of domestic investors rarely involved real working capital, new owners relied typically on bank loans. Many processing companies operated with outdated equipment and manufactured mainly conventional canned fish for the eastern markets. Owing to the depreciated value of assets, some of the companies achieved good sales-to-assets efficiency ratio (Hein 1999, p. 53). In the beginning of 1996, fish processing became profitable again, the aggregate profitability of the sub-sector rose to 10 percent in the middle of 1997. Reliance on one product line and one single market made the Estonian fish industry very vulnerable. This risk proved real in the Russian crisis in August 1998. The crisis deteriorated financial performance and cut sales opportunities of the companies drastically (Figure 16). Over a dozen companies went bankrupt, and 50 percent of the fish industry's capital was taken over by banks.

Foreign investors have expressed only moderate interest in the Estonian fish processing industry. Their reserved attitude had many reasons:



thousand EEK

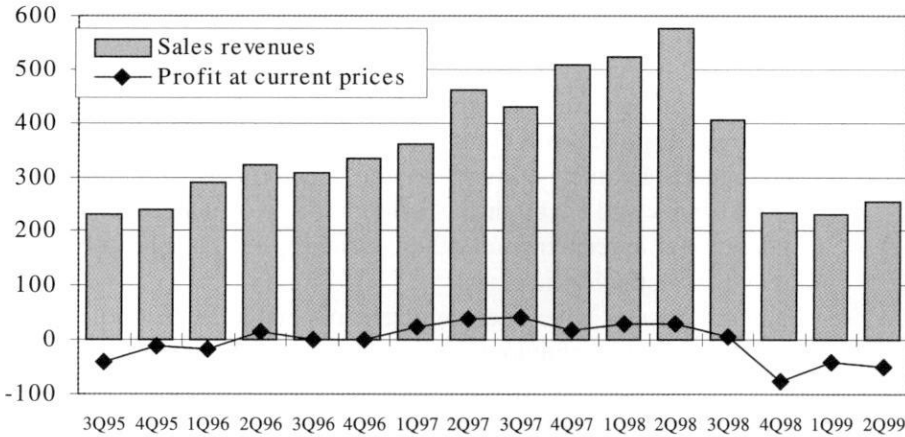


Figure 16. Quarterly sales and profit figures of the Estonian fish industry, 1995 3<sup>rd</sup> Quarter-1999 2<sup>nd</sup> Quarter (Statistical Office of Estonia, Tööstus 3/95-2/99).

- (1) Domestic fish market is rather evenly structured. None of the companies has overwhelmingly dominant market position. The 10 largest firms had 4 to 15 percent market shares in 1998.<sup>16</sup> Gaining a dominant position in such a market structure is rather improbable. The combined export and domestic sales figures show different prospects. Export sales are slightly more concentrated, the two leading companies had over 20 percent share each and  $CR_4$  rose over 60 percent in 1997. Foreign firms, however, have been aware of the risky Eastern markets and the product structure of Estonian fish export. Therefore, the large Estonian fish processing firms did not attract foreign attention.
- (2) Western and Northern European fish industry lacks large multinational enterprises that would have abundant liquid resources and propensity to invest in the CEE region. The large Scandinavian fish manufacturers have so far rather chose direct exports as opposed to investments. Canned fish is usually a subordinate segment in the product-mix of Western fish processors or it is made of different species compared to the Baltic canned fish. Conversely, canned products make up a significant share of output for Estonian fish manufacturers.

<sup>16</sup>The  $CR_4$  concentration ratio was 53 percent whereas  $CR_{10}$  was 86 percent, the rest of industrial sales was divided among 15 smaller firms (Estonian Association of Fishery).

- (3) A few small investments were made by Scandinavian companies, apparently with an experimental purpose, since some of them have already withdrawn from Estonia.
- (4) Due to its size and regional influence, the fish processing industry is of particular importance to rural development and employment policy in Estonia. As of 2000, the fish sector was administered by many ministries at the same time, which caused inconsistency and uncertainty. Fishing is affected noticeably by international agreements and the constantly decreasing catching quotas in the Baltic Sea.
- (5) Estonian owners have been reluctant or unable to modernise product-mix and technology and generally avoided the involvement of foreign shareholders. In a specific case, they even rejected the foreign firm's intended purchase, as the transaction was seen to endanger the existence of their company.
- (6) Throughout Central and Eastern Europe, foreign investments have been unusual in the fish sector compared to other food industries.

The Estonian fish industry is in acute need of investments. Old processing lines have to be replaced inevitably. Companies have two options:

- to increase the proportion of seafood and other processed fish on the expense of canned fish and decrease the dependence on the eastern market, or
- to wait for a recovery of purchasing power and revitalisation of canned fish demand in the eastern markets.

The first option requires enormous capital investments. The entire fish industry made USD 8.4 million of investments in 1997, the investments totalled USD 9.7 million and USD 10.5 million in 1998 and 1999, respectively. As a contrast to these figures, a total of USD 97.4 million would be needed between 1999 and 2002 to bring the Estonian fish industry into line with the EU requirements (Rural Development Plan, MA 1999). Before 2000, 14 fish processing companies have been approved to export to the EU. The future of the industry largely depends on available resources and the capability to modernise production and redirect export sales.

#### **2.3.4. Bakery Industry**

Baking activities were formally established into an industry after World War II by the formulation of large bakeries. Over the soviet era, price of bread was fixed and determined centrally. Consumption of inexpensive bread climbed up into unrealistic levels. As overall economic environment changed in the 1990s, both bread consumption and production dropped drastically (Table 13).

*Table 13. Production of raw material and products of the Estonian bakery industry, 1990-1999.*

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Flour (thousand tons)	158.0	166.0	152.9	86.0	64.1	49.1	23.7	29.0	27.3	22.1
Bread (thousand tons)	151.0	149.0	138.6	111.7	109.3	98.9	88.7	81.2	76.7	72.2
Pastry (thousand tons)	51.4	28.3	14.9	15.0	15.0	12.0	14.0	17.3	16.0	12.4

Sources: Estonian Business Guide 1999, p. 140; Statistical Office of Estonia 1999b, p. 102.

In the beginning of the 1990s, the industry consisted of 22 large-scale bread factories. Eight companies were in state ownership; they used to provide approximately 60 percent of total bread supply. Fourteen factories were in the cooperative ownership of ETK, which accounted for a market share of 40 percent.

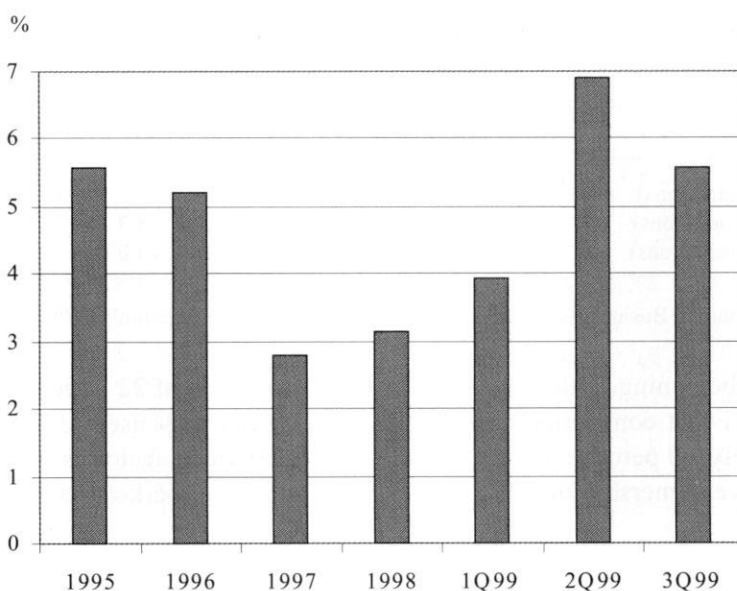
#### **2.3.4.1. Raw Material Supply**

Estonian bakery uses two main kinds of raw material. In the pre-independence period, 100 percent of rye flour and 15 percent of wheat flour used to be produced domestically; 85 percent of the wheat flour demand was met by imports from Kazakhstan and other member republics.

The largest mills in Tartu, Viljandi, Pärnu, Rakvere and Tallinn were privatised between 1993 and 1996. Plenty of small mills were established in the second half of the 1990s. Baking companies prefer purchasing their raw material from large suppliers, since they provide stable quality in large shipments. The liberal agricultural and trade policy disfavoured Estonian grain production. By the end of the decade, flour production fell to 14 percent of the 1990 level (Table 13). In 1999, only 70 to 80 percent of rye flour originated from domestic sources, the rest was imported mainly from Germany and Finland, whereas 100 percent of the wheat flour was purchased from the European Union. Wholesalers have recently conveyed most of the foreign flour to Estonia.

#### **2.3.4.2. Financial Performance**

Despite the constantly shrinking markets, the bakery industry has sound financial performance. Profitability has been around five percent in the second half of the 1990s. Figure 17 shows the profitability indicators of the large bakeries. Performance of the small bakeries is estimated to be lower. Aggregate industrial profitability hides the discrepant profit performance of the large companies. There are financially strong bakeries, which will have sufficient resources to modernise production and meet the diverse demand of consumers in the future.



Note: Figures from 1995 to 1998 include companies employing over 20 people, 1999 figures cover companies employing over 50 people.

*Figure 17. Profitability of the Estonian baking industry, 1995-1999 3<sup>rd</sup> Quarter (Statistical Office of Estonia 1999g, p. 33; 1999h, p. 47; 2000b, p. 10, 50; data from Industry and Energy Statistics Section).*

### 2.3.4.3. Ownership and FDI

Privatisation of the eight state-owned bread factories was accomplished over the period from 1993 to 1996. Most of the companies were sold to three groups of Estonian owners:

- ◆ employees of bakeries (Kohtla-Järve, Pärnu/Cibus, and Viljandi),
- ◆ managers (Rakvere),
- ◆ or other private persons (Tartu/Pere).

The only company directly sold to foreign investors was Tallinn Leibur. Finnish investor Vaasan & Vaasan purchased the company in 1993. Leibur used to be the largest single baking company with a market share of over 20 percent. Another Finnish investor, Fazer Bakeries did not find a good privatisation object and decided to set up a new company. German investors own 100 percent of the smaller Haapsalu Bakery. In addition to Finnish and German FDI, Narva bread factory was in Russian ownership as of the beginning of 2000.

#### 2.3.4.4. Market Structure and Concentration

Estonian bread market has been constantly reducing over the past ten years. The decline is primarily associated with the initially oversized production in the soviet time. Market became clearly polarised as two groups of companies evolved in the second half of the 1990s.

1. The first group includes 30 to 40 large-scale bakeries. They are the successors and spin-offs of the 22 bread factories as well as newly established companies. Nearly 95 percent of bread and pastry production originates from the group of large-scale companies.
2. The second group encompasses small-scale enterprises. Over 100 small bakeries were set up in the recent years. They usually operate in “micro-markets” – in one or a few municipalities. The aggregate market share of small bakeries has remained around 5 percent for several years.

ETK Leib and Leibur continue to be the market leaders. Being the bakery segment of a huge consumers’ cooperative, ETK Leib once used to consist of 14 bread factories, which covered about 40 percent of the market. ETK Leib has pursued a geographical rationalisation for the past few years with a corporate strategy to reform the composition and distribution of manufacturing units. In order to take advantage of scale economies, several facilities were sold, while others were developed. The process so far resulted in weakening market position, the share of the company descended to 20 percent. Leibur greatly benefits from the proximity of the large concentrated bread consuming market of Tallinn. The company has dynamically expanded; it presently controls one-fourth of the Estonian bread market. A group of middle-size bread manufacturers includes energetic companies with good market perspectives: Saile, Pere Leib, Järle, Cibus, Fazer Eesti and Vilma each has 5 to 12 percent market shares.

Although the detachment of several manufacturing units at ETK Leib propelled the atomisation of the market structure, the impact is temporary. ETK Leib will consolidate production in the remaining units, hence its market share is expected to grow again. Industry concentration has speeded up in the recent years both by corporate growth and company acquisitions. Many medium-scale companies with a present share of over 5 percent are determined to grow dynamically. Company take-overs started in 1999, when Pere Leib purchased a majority share in Cibus. In 2000, Leibur acquired Ceres Pagar, a small bakery in Tartu. The largest companies evidently strive for establishing a nation-wide production and distribution network in order to strengthen their market position. Therefore, concentration process in the Estonian bakery industry is anticipated to accelerate in the coming years.

### 2.3.5. Beer Industry

Beer market in the soviet time was characterised by cheap beer and high consumption. Beer industry consisted of seven companies. Market was divided among them on a geographical basis. Saku Brewery supplied the capital and Northern Estonia. Tartu Brewery covered the southern counties, while Pärnu and Saaremaa Breweries had high shares in the western region. There was hardly any competition among the companies, none of them interfered to the market areas of other manufacturers.

#### 2.3.5.1. Privatisation, Ownership and FDI

Privatisation started very early in the beer industry. Saku was the first brewery to be privatised in 1991. The state sold 50 percent directly to Baltic Beverages Holding<sup>17</sup> (BBH). The other half that remained in state ownership was offered for sale later; BBH purchased an additional 25 percent, while the rest of the shares were introduced into the Tallinn Stock Exchange.

Viru Brewery was privatised in 1993. The company was bought by Danish brewery Habro, which took advantage of the Danish government's investment promotion program. Foreign ownership has risen to 100 percent in Viru Brewery since its privatisation.

The second largest brewery of the pre-independence period was initially acquired by Estonian Magnum Group. It then sold the majority package to Finnish beer and soft drink manufacturer Olvi in 1997. An umbrella organisation A. Le Coq was established, in which Olvi owns 80 percent, the rest of the shares are held by Baltic Investment Fund.

A group of managers acquired Pärnu Brewery, while the rest of the medium-sized brewing enterprises were sold to small private investors, usually to Estonian citizens.

Privatisation of the beer industry was completed by 1996.<sup>18</sup> In 1999, 78 percent of aggregate company capital was owned by foreign investors, roughly 3 percent belonged to employees or managers, the remainder was in the hands of domestic private persons.

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<sup>17</sup> Baltic Beverages Holding is a joint venture of Swedish-Norwegian Pripps-Ringnes and Finnish beverage producer Hartwall. BBH was particularly established to act as the founders' investment and management company in the FSU republics. As of 1999, the company operated 11 manufacturing subsidiaries in Russia, Ukraine and the Baltic States (Vuosikertomus Hartwall 1998, p. 16-17).

<sup>18</sup> Employees and management acquired about 10 percent of the industry despite the fact that they did not enjoy any special privileges in the privatisation process. Their share has decreased as Pärnu Brewery lost significance over the past three years.

### 2.3.5.2. Production

Production of Estonian beer industry dropped sharply in the beginning of the 1990s due to the following reasons:

1. The monetary reform in 1992 resulted in a considerable loss of purchasing power.
2. Estonian breweries faced the increasing challenge of import beer shipments in the opening market.
3. Estonian beer manufacturers were coping with internal restructuring and privatisation. They did not have sufficient time to develop new products or company image, nor were they able to upgrade production technology in a short time.

Production started to increase again in 1994, which is strongly associated with the recovery of Estonian economy and real income growth. The largest breweries have improved manufacturing technology, marketing and distribution activities by 1999.

Consumption of beer is primarily a function of disposable income and consumption patterns, but to a certain extent it is affected also by weather conditions in the summer. Product assortment included a few homogenous and cheap beer brands in the soviet time. The favourable price-income ratios maintained relatively high consumption levels until the end of the 1980s (Figure 18). Consumption reached its lowest stage in 1993, and after three years of stabilisation, it started to boom again in 1997. At present, beer market is characterised by high quality products and a wide assortment including over 60 domestic and nearly 40 imported brands. Consumption attained 1989 level again ten years

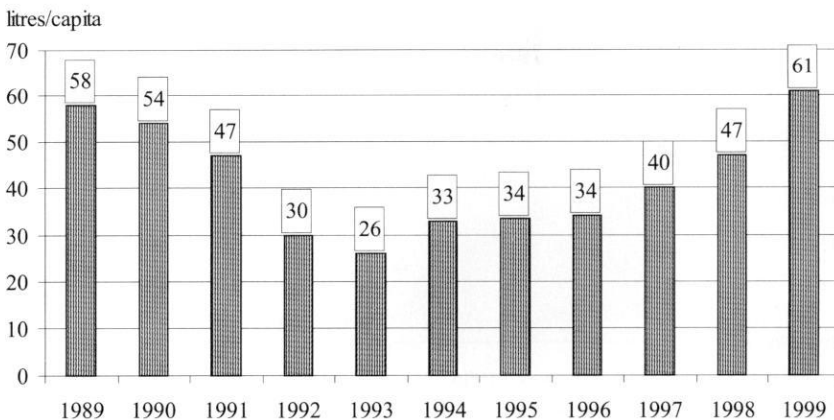
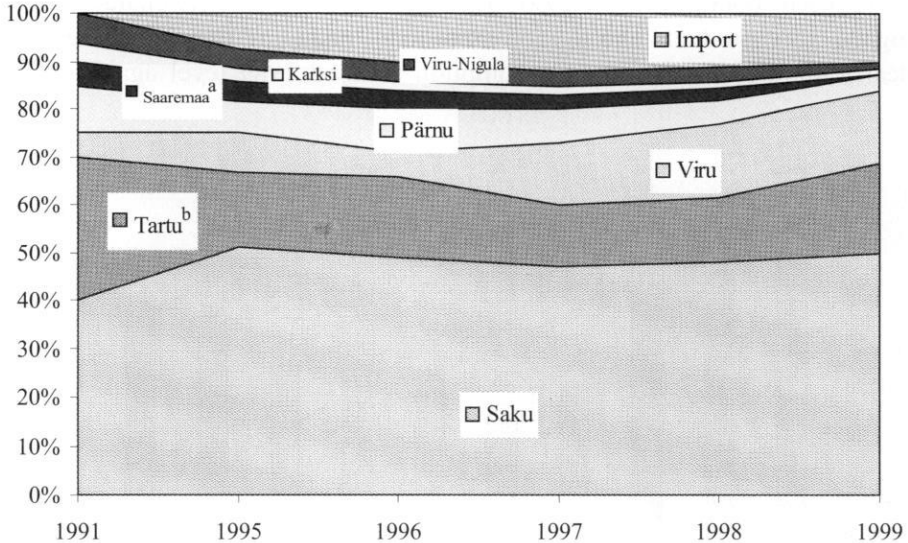


Figure 18. Beer consumption in Estonia, 1989-1999 (Estonian Brewery Association).

later in 1999. Continuous expansion is envisioned even for the future. Expectations are based on a comparison with many other European countries where annual consumption exceeds 100 litres/capita. Estonian beer market is anticipated to reach 80 litres/capita within the next five years.

### 2.3.5.3. Market Structure

The structure of beer market changed moderately in the 1990s. Imported beer gradually occupied a combined 10 to 12 percent share by 1998 and has maintained it since then. Domestically produced beer brands retained strong market positions among Estonian consumers. Saku Brewery attracted foreign investors in a very early phase and managed to increase its market share to over 50 percent, while other breweries were engaged with restructuring and privatisation. As competitors developed their technology and corporate strategy, composition of market became more even again. The other two foreign owned breweries, Tartu and Viru strengthened their positions by 1999 (Figure 19). Pärnu and Saare breweries were the biggest losers on the market. Both companies had outdated technology and lacked financial resources as well as a clear corporate strategy. Pärnu lost its notable market share from 1991 to 1999. Saare was purchased by Olvi but the factory was closed in 1998. Production of Saare's traditional brands was shifted to Tartu. The small breweries maintained their



Note: <sup>a,b</sup>Sales of Saare brand is incorporated into the market share of Tartu Brewery in 1999.

Figure 19. Market structure in the Estonian beer industry, 1991-1999 (Estonian Brewery Association).



1 to 3 percent shares. They even together account for an insignificant proportion on the market.

Since the three largest companies essentially developed marketing and logistic activities and Estonian market is small with relatively short distances, their distribution efficiently covers the entire country. Product assortment is kept wide. These factors have not allowed the mass-emergence of microbreweries, as happened in Latvia, Lithuania, and in most of the Central and Eastern European transition economies.

#### **2.3.5.4. Financial Conditions**

The market leader, Saku Brewery used to enjoy high profitability until the middle of the 1990s, when it was the sole manufacturer of quality beer products. Due to the lack of real competition, gross profit margin boomed to as high as 15 percent in the early years of independence. Profitability of the big manufacturers became equalised by 1999. Simultaneously, small breweries reported moderate profits. Aggregate profitability in the beer industry was 7.9 percent in 1998.

Excise tax has played an important role in the financial performance of the breweries. Before 1994, domestic producers were protected with lower excise taxes compared to imported products. A regulation changed excise taxation imposing 25 to 60 percent larger toll on imported beer and large domestic producers than smaller breweries. Unequal treatment was raised in 1999; a uniform taxation based on alcohol content was introduced instead. Beer consumption was consciously stimulated on the expense of strong alcohol consumption by maintaining excise tax ratio of spirits and beer products at four to one.

Estonian beer market has excellent future prospects. The three biggest companies Saku, Tartu and Viru will most probably continue to control around 85 percent of the market. Even small breweries may maintain their marginal importance.

Since consumer loyalty to domestically produced beer is very strong, the only feasible way to get feet on the beer market of Estonia is direct investment. Therefore, more foreign investors may arrive in the future, although establishing a notable position would require enormous resources in the recently consolidated market environment. The Estonian market is small in international comparison, however it is dynamically growing. Consequently, the arrival of additional foreign investors is not likely, but can not be fully excluded, either.

#### **2.3.6. Two Monopoly Cases**

The following cases introduce the developments of two small sub-sectors of the Estonian food processing. Both cases provide a unique example concerning the

presence or absence of foreign involvement. In this respect, the cases illustrate extreme situations.

### **2.3.6.1. Tobacco**

In 1993, the Estonian government and Swedish tobacco manufacturer Svenska Tobak AB established a joint venture called Eesti Tubaka. The new company was the successor of Leek tobacco manufacturing plant in Tallinn. The Swedish investor acquired 67 percent of the shares while the Estonian government retained 33 percent. The transaction attempted to create the third corner of a balanced triad within tobacco manufacturing in the Baltic region, since Danish Skandinaviska Tobakskompagni purchased the Latvian tobacco plant and Phillip Morris acquired the Lithuanian tobacco company. Svenska Tobak AB was planning to invest USD 20 million into the company, which would have been among the biggest investments into the Estonian food and tobacco sector. It was evident that besides their local markets, the Baltic countries were regarded as bases to penetrate large eastern markets for all three foreign tobacco manufacturers. Svenska Tobak AB was planning to conquer the Russian market from Estonia. Between 1993 and 1995 the Swedish company invested SEK 105 million into Eesti Tubaka (Tooming 1995).

After Russia imposed the double customs duty on Estonian export, the Swedish company realised that Estonia became an unsuitable port to the eastern markets. The ambitious development strategy was degraded accordingly. Finally, Eesti Tubaka was hit by the decision of the Estonian government, which increased the excise tax on domestically manufactured tobacco products to the level at which imported cigarette was taxed. The measure was a condition dictated by WTO before approving Estonia's membership in the organisation. Eesti Tubaka lost its price advantages over imported tobacco products. Therefore, Svenska Tobak decided to cease tobacco production in the Tallinn plant. Manufacturing was moved to Sweden and Eesti Tubaka was turned into a marketing and sales company. The traditional Estonian tobacco brands have been manufactured in Sweden and sold in Estonia since January 1996. The market share of Swedish Match Eesti<sup>19</sup> contracted but remained strong, it declined from about 70 percent to 40-50 percent in two years. The company achieved EEK 125 million sales revenues and EEK 7.3 million profits in 1997 (Eesti Päevaleht 1998). In the first half of 1998, it had sales revenues of EEK 61.3 million and profit of EEK 6.3 million (MFA 1998). The Estonian

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<sup>19</sup>Eesti Tubaka was renamed to Swedish Match Eesti AS due to the changes in the ownership of the parent company. Since then, there have been further changes in the Swedish parent company. During the second quarter of 1999, an agreement was reached covering the sale of Swedish Match's cigarette business to Austria Tabak for SEK 4,800 million.

government was trying to sell its share in the company for EEK 81 million; finally, the share package was sold for EEK 25 million to the Swedish owner (Eesti Päevaleht 1998).

Market shares have changed rapidly. Currently, Philip Morris covers 51 percent of cigarette sales by holding the three most popular brands. Swedish Match accounts for 30 percent of the market, with the most selling brands “Rumba” and “Leek” having 10 percent and 9 percent respectively. British-American Tobacco has the third largest share with 6.4 percent of the cigarette sales in Estonia (BNS 1999a).

The Estonian government received strong criticism about the policy concerning the tobacco industry. Although the fact of the adjustment of tobacco excise tax was decided earlier, the timing of the regulation was much debated. Eesti Tubaka argued that a few more years of favourable tobacco excise tax rates would have reinforced the company to stand competition with imported products. On the other hand, WTO requirements put pressure on Estonian government to urge with the equalisation of excise taxes.

It is a big question who benefited and who lost eventually in the case of the Estonian tobacco company. The tobacco excise tax income certainly rose, but higher tobacco prices induced illegal sales. The share of black market sales are estimated to have reached 25 percent in total Estonian tobacco sales by 1999, which caused tremendous losses in terms of unpaid excises tax (BNS 1999b). It is worth noting that World Trade Organisation showed no flexibility in the case of a country, which practised a much more radical and liberal trade policy than most of its member states. It is hard to speculate over the probable survival of Eesti Tubaka, even an additional few years of excise tax advantages might have not necessarily save it.

Nevertheless, Estonian tobacco industry became a negative text-book case of foreign direct investment. Tobacco manufacturing in Tallinn was completely terminated, which resulted in dismissing about 200 employees. The Swedish company followed the basic logic of business; when sales and profit became risky, it acted immediately. Relocating the production eased the company’s employment difficulties in the home facility. The ambitious investment plans were eventually replaced with trade relations.

### **2.3.6.2. Vegetable Oil**

Oilseeds constitute an exceptional branch of the agricultural and food sector. The consumption of vegetable oil is growing, trade impediments for oilseeds are low, and profitability of oilseed processing has been one of the highest among food industries (Jansik and Mäkimattila 1999, p. 159). Two factors make the oilseed sector particularly prosperous:

- Vegetable oil has a rapidly growing demand in both the European Union and in the Central and Eastern European countries. Vegetable oil and margarine are considered healthy options to animal fats. In many CEE countries, the relative prices of vegetable and animal fats have also contributed to the changing consumption structure.
- Both the EU and the CEE countries are suffering from a serious protein feed deficit. An important output of the vegetable oil industry is oil-cake of high protein content, which eases the pressure on the demand of protein additive for feed.

The excellent prospects and the need for vegetable oil production were recently realised also in Estonia. In the beginning of the 1990s, rape-seed had relatively little importance in the Estonian crop structure, the country lacked oilseed processing entirely. Estonian consumption of refined vegetable oil has been approximately 20,000 tons annually over the past years. All vegetable oil used to be imported from the Netherlands, Germany, Belgium, Finland and other countries.

In order to utilise the opportunities in the oilseed sector, a brand new company AS Werol Tehased was established in April 1997. The company is entirely owned by domestic investors, the major shareholder is the Estonian Compensation Fund (Hüvitusfond) with 67.7 percent. The rest of the shares are divided between two owners AS ERA Pank (13.6 percent) and Lõunastööstuse AS (18.7 percent). The company capital totals EEK 73 million. At the end of December 1997, AS Werol Tehased acquired the production premises of a former starch plant, which were renovated and converted into an oilseed crushing facility. Investments totalled EEK 136 million, which included reconstruction and the installation of state-of-the-art refining equipment. The first months of production in late 1999 have been successful. The annual production of the company is planned to rise up to 40,000 tons of refined vegetable oil.

The company has carefully organised its vertical relations in order to keep the entire oilseed chain under control (Figure 20). Production contracts were made with registered farmers, who receive credit to apply the appropriate agronomic methods and inputs. The primary objective is to guarantee stable quality and volumes of raw material supply. Due to the company's production contracts and the reasonable profitability of the plant, rape-seed production has increased sharply over the recent years (Table 14). In order to fulfil the ultimate raw material needs of the processing company, rape-seed should be grown on approximately 40,000 hectares in Estonia in the future.

Oil cake, the by-product of the vegetable oil industry, is a very important feed additive due to its high protein content. AS Werol is estimated to produce 35,000 tons of oil cake, which would cover the entire oil-cake demand in the domestic feed industry. Rape-seed oil is delivered in bulk, large plastic cans, or one litre bottles depending on the demand of end users.

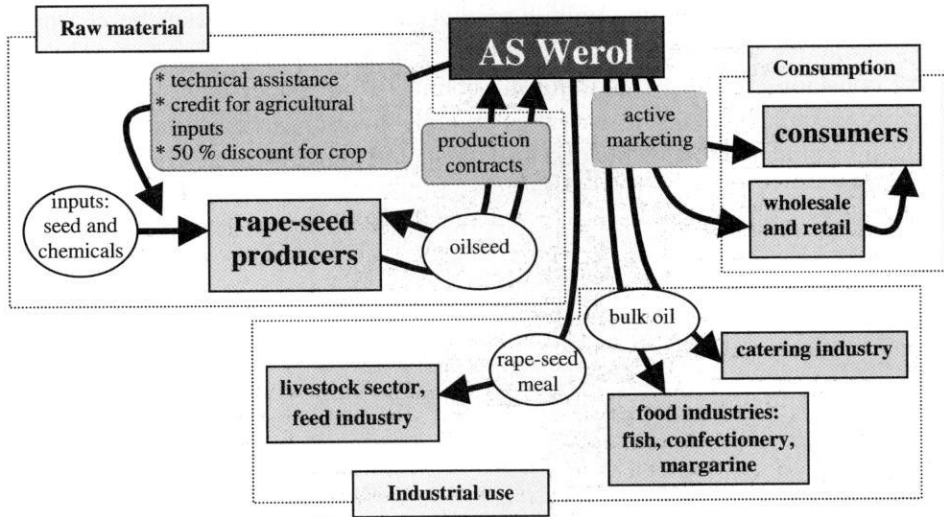


Figure 20. Vertical relations of the Estonian vegetable oil producing company in the oil-seed chain.

The company has built on the increasing domestic food awareness in its marketing campaign. AS Werol is fully in domestic ownership and procures raw material from domestic farmers. Besides being domestic, the company has definite competitive advantages: modern technology, high quality products, and logistic advantages such as good location in terms of raw material and markets. The only competitor of the company is imported oil, but within a few months AS Werol has been reported to increase its domestic market share from zero to nearly 40 percent. Operating at full capacity would allow AS Werol to supply theoretically the entire domestic market and export about 40 percent of its production.

Table 14. Rape-seed production in Estonia, 1994-1999.

	1994	1995	1996	1997	1998	1999 <sup>a</sup>
Sown area (ha)	2,474	5,982	8,546	7,425	17,492	24,200
Yield (kg/ha)	828	1,173	1,171	1,199	1,024	n.a.
Production (tons)	2,049	7,017	10,005	8,901	17,918	n.a.
Mineral fertilisers (active substance, tons)	365	738	632	760	1,645	2,181
Share of rape-seed area in total industrial crop area (%)	68.7	82.2	89.6	82.4	98.1	98.0

Source: Statistical Office of Estonia 1999a, p. 39-41, 70.

Note: <sup>a</sup>Preliminary figure.

These prospects and the unique market position would make the company very attractive also for foreign investors. The Estonian owners, however, are very conscious about maintaining the country's only vegetable oil processing facility in their hands. The arrival of foreign investors in the form of a green-field investment into this successful sub-sector, however, may never be fully excluded.

### 3. Latvia

#### 3.1. Overview of Food Processing

Latvian food processing followed a similar path like the Estonian and Lithuanian food sectors. In the soviet rule, Latvia supplied the eastern territories, particularly Russian oblasts. Extensive meat, dairy and fish processing capacities were developed. Confectionery also used to be a traditionally export oriented industry. Consequently, Latvian food processing became the single most important industry within manufacturing sector.

##### 3.1.1. Significance of Food Processing in Latvia

Food processing remained the absolute predominant industry of manufacturing also in the post-socialist period (Figure 21). In fact, the share of food sector became more controlling than ever, in the middle of the 1990s it acquired for over 40 percent of total manufacturing output. Chemical and wood industries occupied the second and third places, contributing with well below ten percent to the manufacturing output. The growth of the food sector's relative importance was attributable to the decline of leather industry and the dramatic collapse of motor vehicle production. In the second half of the 1990s the share of food processing decreased to one-third of manufacturing output. The drop is explained by the combined impact of falling food industrial output after the

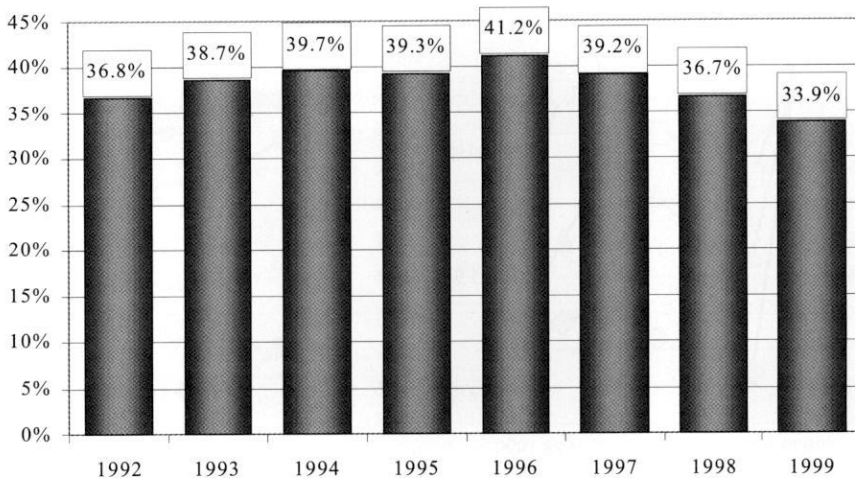


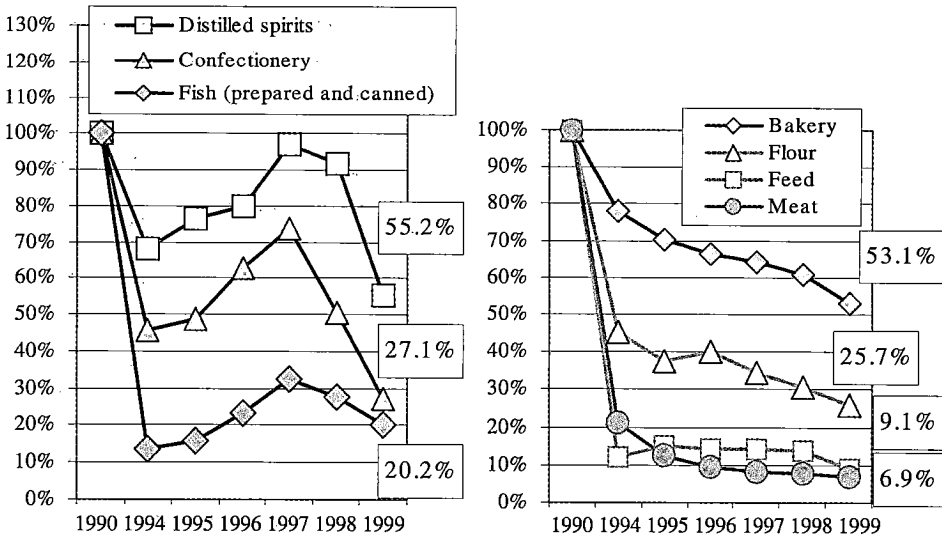
Figure 21. Share of food processing in Latvian manufacturing, 1992-1999. (UNIDO 1997, p. 396, 401, UNIDO 2000, p. 455, 457; UN 2000, p. 75).

Russian crises and dynamically growing chemical, metal and wood processing industries.

### 3.1.2. Food Production

The production decline in the Latvian food industries was more dramatic in magnitude than in Estonia or in Lithuania. Production of the key foodstuffs dropped to 7-55 percent of the 1990 level by 1999. Two interesting phenomena can be detected by analysing the figures below:

1. Some of the export-oriented product lines have moved on parallel routes in the 1990s (Figure 22). The trends of Latvian confectionery, distilling and fish output are identical to the path of Estonian export-oriented industries. The bottom was passed in 1994, and export-driven production dynamically expanded until 1997. Then, due to the Russian crisis, outputs fell again even below 1994 levels in 1999.
2. Bread production moved parallel with its raw material, although a considerable and permanent gap emerged between the pace of decrease in flour and bread output changes (Figure 23). The vertical components of meat production chain, feed and meat processing followed a tightly connected route. Similar to dairy and fish, meat processing also used to be driven by exports, but



Figures 22 and 23. Production trends of selected foodstuffs in Latvia based on changes of production volumes, 1990, 1994-1999, (1990=100%) (Central Statistical Bureau of Latvia 1998, p. 36-41; 1999b, p. 216-218, 224; 2000c, p. 92-93).



sales opportunities of meat products never recovered in the period of independence. Consequently, meat and feed production sank to astonishing lows compared to the year of 1990. Bread production is more geared towards domestic sales. The decline was not so steep owing to the reasonably stable Latvian purchasing power. Bread consumption, however, is still declining even in Latvia and it has not reached the lowest point yet. On the contrary, meat production apparently began stabilising on its present level as early as in 1997.

The two major types of paths presented in Figures 22 and 23 are common in the Baltic food sectors: (1) the output fluctuation of export-oriented industries has been discovered in Estonia (Figure 7 on page 35), whereas (2) the parallel routes of vertically interrelated industries will be found the most pronounced in Lithuania (Figure 35 on page 114).

### 3.1.3. Industry Composition in Food Processing

The industry composition of Latvian food processing changed considerably over the past decade. Three industries used to predominate food processing in the beginning of the independence period: meat, dairy and feed industries together accounted for as much as 65 percent of total food processing output in 1991 (Table 15). Fish processing and baking were also notable industries with 5 to 10 percent. Apart from a few medium- and small-scale sub-sectors such as milling, sugar, fruit and vegetable, confectionery and distilling, the rest of the industries had minor proportion within food processing.

Changes in the markets and recession in transition implied divergent routes of development for the individual food industries. All export dependent sub-sectors involved in first-stage processing initially recorded substantial decrease. *Meat and feed industries* have suffered a drastic fall of shares; starting from well over 40 percent in 1991 they together accounted for only 14 percent in 1998. The share of *dairy processing* also contracted, albeit not as dramatically: it fell only 4 percentage points between 1991 and 1998.

Several small- and medium-scale industries increased their share on the expense of the three large sub-sectors. Traditionally export-driven *fish processing* developed impressively by 1997, but established its sales on the eastern markets and lost share in 1998 due to the Russian crisis. Similar development can be observed for *confectionery* industry.

Industries, which are driven primarily by domestic or – with a broader view – by Baltic markets, have enjoyed relative prosperity within the industry composition of Latvian food sector. *Fruit and vegetable processing* increased its share with over 4 percentage points by the end of the decade. Its performance is attributable to growing juice and potato snack production. *Bakery* production,

Table 15. Sub-sectoral composition in Latvian food processing, 1991-1998 (in percent).

Industry	1991	1992	1993	1994	1995	1996	1997	1998
Meat	28.6	20.0	24.5	20.8	16.0	13.5	11.5	11.9
Fish	9.5	6.6	8.0	10.6	12.5	16.3	18.1	14.9
Fruit and vegetable	2.5	2.7	0.9	1.2	2.7	5.0	6.4	6.7
Vegetable oil	0.5	0.5	0.6	0.1	0.1	0.1	0.1	0.1
Dairy	22.3	23.9	21.2	18.9	18.8	17.6	16.4	18.3
Milling	3.7	5.9	6.8	7.6	6.7	8.1	6.0	4.5
Starch	0.0	0.0	0.1	0.1	0.1	0.3	0.3	0.3
Feed	14.1	10.1	4.0	2.5	2.5	1.3	2.0	2.2
Bread	5.6	10.4	15.3	14.1	13.4	11.9	11.1	11.5
Sugar	3.5	8.5	3.4	2.3	3.3	3.4	4.3	5.3
Confectionery	2.2	2.5	3.7	6.1	5.8	5.7	5.9	4.2
Other	0.8	0.7	0.6	0.8	0.8	1.6	3.8	4.6
Distilling and wine	3.1	4.5	5.1	7.7	9.0	9.0	8.2	8.4
Beer	1.4	1.5	3.2	3.9	4.9	4.1	4.4	5.1
Soft drinks	0.8	0.8	1.0	1.3	1.6	0.5	0.4	0.5
Tobacco	1.4	1.4	1.7	1.9	1.8	1.5	1.3	1.5
Total food, beverages and tobacco	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Sources: UNIDO 1997, p. 399; Central Statistical Bureau of Latvia, Balance of Payments Statistics Section

Note: Calculations are based on industrial output data (sales revenues).

although still declining in absolute terms, attained a sound share through the past decade. Since mostly domestic raw material is used for bread production, baking industry keeps the share of *milling* from diminishing to negligible levels, as it happened in Estonia. *Sugar* production, based primarily on domestic consumption, has also maintained its relative importance within the food sector; its share grew above 5 percent by 1998. The share of alcoholic beverages expanded impressively in the food sector in the 1990s. The proportion of *spirits and wines* enlarged nearly threefold, while the share of *beer* manufacturing showed an even more dynamic expansion. Alcoholic beverages comprised 4.5 percent of overall food processing sales in 1991, which share was raised to 13.5 percent by 1998.

### 3.1.4. Number of Enterprises

Similarly to the two Baltic neighbours, transition period has been prolific in newly established food processing enterprises in Latvia. During the soviet rule

*Table 16. Number of enterprises in the Latvian food processing industries, 1994-1998.*

Number of companies	1994	1995	1996	1997	1998
Meat	137	134	162	111	148
Fish	34	52	77	105	128
Fruit and vegetable	37	39	33	28	43
Vegetable oil	3	2	2	1	2
Dairy	74	74	68	76	87
Milling	45	23	37	33	28
Starch	1	1	2	2	2
Feed	17	20	17	26	22
Bread	94	166	269	292	216
Sugar	3	3	3	3	3
Confectionery	9	9	9	14	21
Other	6	14	39	64	50
Distilling	7	7	11	13	13
Wine	3	2	3	1	1
Beer	18	17	19	17	24
Soft drinks	8	10	16	13	18
Tobacco	1	1	1	1	1
<b>Total food, beverages and tobacco</b>	<b>497</b>	<b>574</b>	<b>768</b>	<b>800</b>	<b>807</b>

Source: data from Central Statistical Bureau of Latvia, Balance of Payments Statistics Section

food production used to be centralised in a few large processing concerns in each major food industries.

Decentralisation of the large production mammoths increased the number of companies in some first-stage processing industries, in which privatisation was governed by special laws. Yet, most of the growth was fostered by emergence of new enterprises. Small enterprises spread rapidly in the meat and fish processing and in bakery production. Fruit and vegetable, confectionery, beer and soft drink production as well as the category of other foodstuffs registered numerous micro-establishments in the 1990s (Table 16).

### **3.1.5. Structure of Domestic and Export Sales**

At the end of the 1990s, domestic market dominated the sales structure of all major food processing industries (Table 17). Foreign sales of traditionally export-oriented meat, fish and dairy processing industries contracted from their previous levels, while exports of fruit and vegetable processing – mainly juices – and alcoholic beverages developed dynamically in the past decade. Domestic

*Table 17. Share of domestic and export sales in selected food processing industries of Latvia, 1998.*

	domestic	export
Meat processing	76.0	24.0
Fish processing	57.2	42.8
Fruit and vegetable processing	73.4	26.6
Dairy processing	76.4	23.6
Bakery	95.8	4.2
Sugar	97.2	2.8
Alcoholic beverages	77.3	22.7

Sources: Industrial output data – Central Statistical Bureau of Latvia, Balance of Payments Statistics Section; Export data – Statistical Office of Estonia 1999d, p. 45.

Notes: Calculations are based on industrial output and foreign trade statistics. Foreign trade statistics include warehouse statistics.

market remained the primary target of milling, baking, sugar and beer industries.

Transition period has witnessed a sharp increase in foreign trade deficit of foodstuffs. Although consumer loyalty is important in Latvia, it may not be as strong as in Estonia. Food articles are imported mainly from the European Union, Central Europe and the two Baltic neighbours. The share of imported goods were 9.4 percent in Latvian food consumption in 1994, which grew to nearly 30 percent by 1998. The share of foreign origin exceeded 70 percent in the sales of coffee, fats and oils, confectionery and tobacco, while for dairy, bakery products and beer it stayed under 10 percent.

### **3.2. FDI in the Latvian Food Processing**

FDI influx started in 1992 and 1993 with the beginning of privatisation process. Unlike elsewhere in the CEE region, manufacturing did not receive the largest proportion of FDI. Transport and communication attracted the majority of foreign investments in the first half of the 1990s.

The sectoral distribution of inward FDI stock became more equal by 1999, although transport and communication preserved its leading position. Financial services and trading sector lured considerable foreign investments. Manufacturing absorbed one-fifth of inward FDI stock accumulated by 1999 (Table 18).

Table 18. Sectoral distribution of inward FDI stock in Latvia (in percent), 1996-1999<sup>a</sup>.

	1996	1997	1998	1999
Manufacturing	17.4	24.6	19.8	20.2
Trade	9.2	13.1	16.2	16.2
Transport and communication	45.1	33.8	30.1	24.9
Financial Services	16.8	20.1	23.9	20.7
Other	11.5	8.4	10.0	18.0
Total	100.0	100.0	100.0	100.0

Source: Latvian Development Agency

Note: <sup>a</sup>Status at the end of the year.

### 3.2.1. Food Industrial FDI in Latvian Manufacturing FDI

As Table 18 illustrates, manufacturing was not the primary FDI recipient in the Latvian economy. In the early phases of transition, foreign direct investments flowed in a cautious and reserved manner to Latvian food processing, despite its predominant position in manufacturing. Food industries accounted for less than 20 percent of foreign owned company capital in manufacturing as late as in 1997 (Table 19), while food sector contributed to total manufacturing output with nearly 40 percent in the same year (Figure 21).

The procrastinative arrival of food industrial FDI was ascribable to the very sharp recession of food industrial sales and the special laws on privatising the largest food industries.<sup>20</sup> Foreign capital remained underrepresented within manufacturing until 1997. Finally, the food industrial share of foreign owned company capital within foreign owned manufacturing company capital jumped over 30 percent in 1998 as a result of several big investment projects (Table 19).

<sup>20</sup> Special laws regulated the privatisation of dairy, meat, and grain processing industries as well as bakery. Laws were enacted in 1992 and 1993 and granted preferential opportunities to domestic customers (raw material suppliers or further processors) or employees/managers of the companies to be privatised. See further details on the privatisation of Latvian food industries in Jasjko et al. (1999).

*Table 19. Foreign ownership in the aggregate company capital of Latvian manufacturing and food processing sector, 1994-1999.*

	1994	1995	1996	1997	1998	1999 <sup>a</sup>
Foreign ownership in manufacturing company capital (in million LVL)	39.0	49.7	64.6	125.9	117.1	130.4
Foreign ownership in food industrial company capital (in million LVL) <sup>b</sup>	7.3	11.6	14.3	22.9	40.0	39.8
Share of food to total manufacturing (in %)	18.8	23.4	22.1	18.2	34.2	30.5

Source: Central Statistical Bureau of Latvia 2000a, p. 10.

Notes: <sup>a</sup>status of September for 1999; <sup>b</sup>from 1994 to 1996 food industrial FDI data are adjusted in retrospect with the deducted investments of Kellogg Company.

### **3.2.2. Foreign Ownership in the Latvian Food Processing**

Privatisation of dairy, meat, baking and other food processing industries were completed by 1996 and privatisation of grain processing ended in 1997 (Počs and Počs 2000, p. 20). Yet, foreign ownership remained very modest until 1996 (Figure 24). Apart from a few cases in the production of tobacco and beverages, foreign investors had limited access and apparently low propensity to take part in the first phase of privatisation. The emergence of domestic ownership was consciously encouraged throughout the entire food sector. Raw material producers were preferred as the new owners of first-stage processing industries, while domestic corporate investors and to a less extent domestic private persons and employees/managers were prioritised in the case of second-stage processing industries. Although a core investor concept was approved to sell the controlling stakes of the companies in one piece, foreign investors rarely acquired companies directly in the privatisation process.

As Table 19 already revealed, foreign capital participation doubled subsequent to the privatisation, from 1997 to 1998. Figure 24 verifies the substantial growth of foreign control. The share of foreign owned company capital rose from 18 percent in 1997 to 28.4 percent in 1998. These facts provide evidence for the phenomenon of “*two-step ownership change*”, which was associated with the arrival of food industrial FDI to Latvia. The first step encompassed a shift from state- to private ownership, while a second step involved the company acquisitions of foreign investors. These purchases were concluded already between the new private owners and foreign companies.

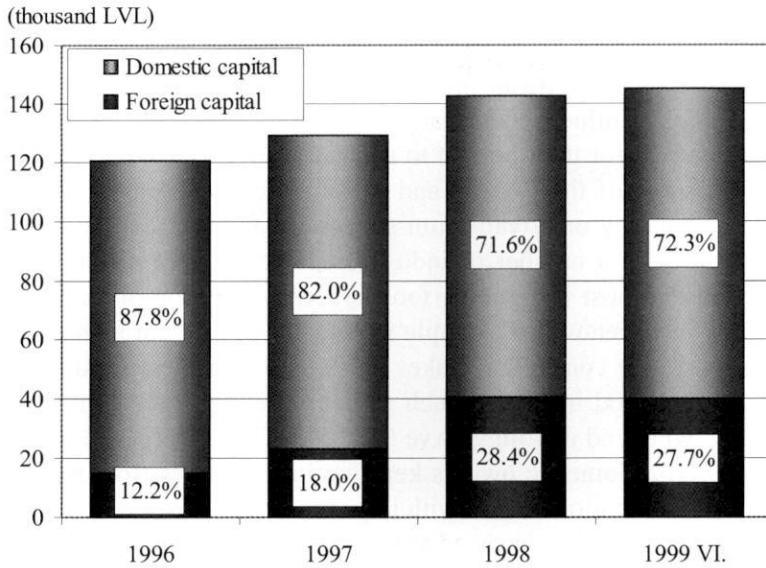


Figure 24. Ownership structure of the Latvian food processing sector, 1996-1999 (Total company capital of food processing - Central Statistical Bureau of Latvia, Balance of Payments Statistics Section; foreign owned company capital in food processing - Central Statistical Bureau of Latvia 2000a, p. 10).

### 3.2.3. Special Characteristics of Food Industrial FDI in Latvia

Food industrial FDI carries several interesting characteristics that distinguish the Latvian case from the Estonian and Lithuanian experience.

1. *One distinct feature of foreign capital is its dispersed aspect.* As opposed to Estonia and Lithuania, the Latvian food sector lacks giant investment projects that would dominate the food industrial FDI inward stock. At the same time, over 80 enterprises, which make up 10 percent of food processing companies absorbed so much foreign capital that the share of foreign ownership in aggregate company capital of the food sector has approached 30 percent. Such a dispersed distribution of food industrial FDI and the lack of absolute predominant investment projects are unique characteristics of the Latvian food processing. Plenty of healthy small- and medium-scale food manufacturers operate with foreign participation. Joint ventures or production subsidiaries often specialise in distinguished or rare product groups and market niches. Still, several foreign-owned food processors have achieved leading positions on their segment of food markets.

2. *A second characteristic is the participation of powerful domestic corporate investors* and the presence of politics and politicians in the food industrial privatisation process. This fact has substantially influenced the arrival of FDI. Foreign investors are renowned for their pursuit to acquire market leaders in the food industries of the Central and Eastern European countries. The Latvian way of privatisation set serious impediments to such a strategy in a number of industries. Instead, domestic investors won the most prosperous food processors during privatisation. The most renowned example is Ave Lat concern; it managed to acquire the controlling stakes of the real flagships of numerous Latvian food industries such as dairy, bakery, fish, confectionery, wine and distilling (Ave Lat 1998). The emergence of such powerful domestic owners kept foreign investors from entering the Latvian food market with large investment projects. This fact explains also the dispersed aspect of foreign capital in the Latvian food sectors as noted in the previous point.
3. The geographic origin of food industrial foreign investors also holds interesting and unusual attributes. Huge multinational companies avoided the Latvian food sector.<sup>21</sup> *The largest stake of food industrial FDI originated from the Baltic Sea region, mainly from the Scandinavian countries.* Finland and Sweden together registered over 40 percent of food industrial FDI, but even the share of Estonian capital exceeded 7 percent in 1998. The shares of the three leading countries range from 18 to 23 percent, which signifies more equal distribution in terms of geographic origin, that the patterns detected in the case of Estonia or Lithuania (Table 3 on page 31). Many small- and medium-scale foreign investment projects have been established by Scandinavian food processors; it reinforced the scattered nature of food industrial FDI in Latvia.

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<sup>21</sup> The only exception is the investment of Kellogg Company, whose name eventually incurred negative connotation and disappointment in the circles of food processing. The breakfast cereals manufacturing subsidiary, which opened in 1993 was welcomed with euphoric anticipations. The project amounted to over half of total food industrial FDI in the first years of transition. Hence, it comprised the single most substantial foreign capital infusion to Latvian food processing. The plant was designated to be a regional supply centre for the Baltic States, and Russia and other CIS countries. However, Kellogg closed its production facility due to internal restructuring of production strategy in November 1997. The Latvian subsidiary has operated as a distribution and logistic centre since then (Tetro 1998, p. 21-22). Kellogg's investment was deleted from food industry and classified as FDI in trading activities.



4. *Latvia's geographic advantages* raised the interest of several food processing investors, who plan to build their presence on one production subsidiary in the Baltic region. The *central location of the country* allows cost-effective coverage of the Baltic food markets.

### 3.2.4. Industrial Distribution of Foreign Capital

The industrial distribution of food industrial FDI complies with the general rules of Central and Eastern Europe for the case of many industries. Foreign ownership is dominant in the Latvian vegetable oil, starch and beer industries like in many other CEE countries. At the same time, low foreign ownership characterises most of the large first-stage processing industries such as meat, fish and dairy. This fact is not unusual in the CEE region either.

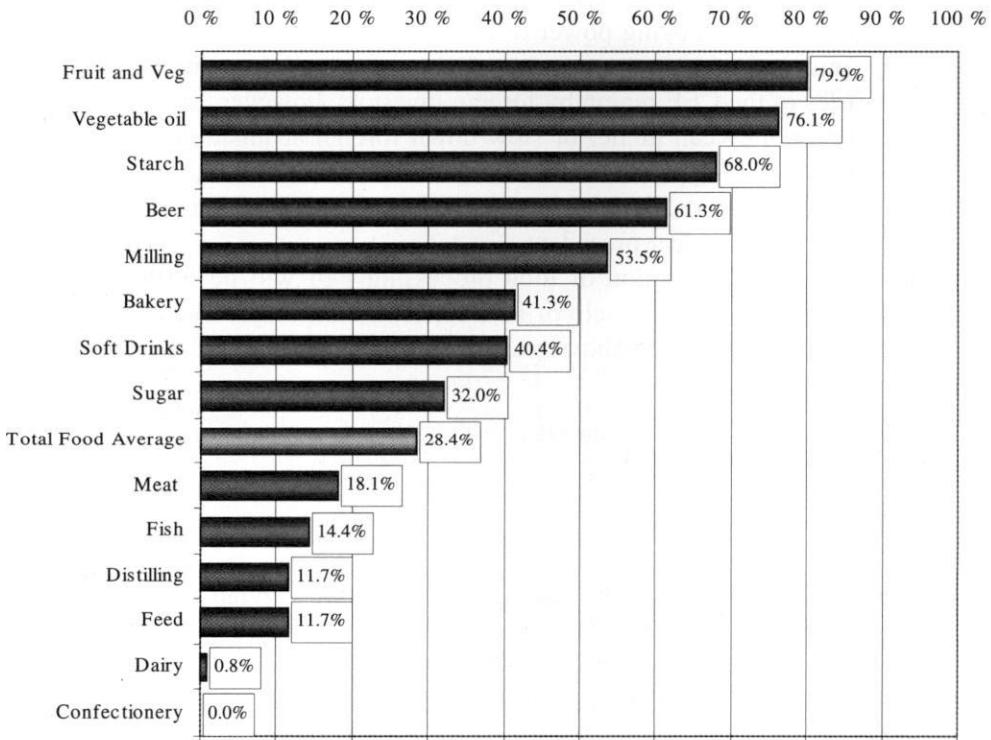


Figure 25. Foreign capital influence in the Latvian food processing industries, 1998. Figures express the share of foreign owned capital in total registered company capital (Data from the Central Statistical Bureau of Latvia, Balance of Payments Statistics Section).

Some industries proved to have attractiveness that is peculiar to the Latvian food sector. Fruit and vegetable processing, milling and bakery lured unusually high foreign investments, while the typically popular soft drinks manufacturing on the other end absorbed surprisingly little FDI. The share of foreign capital within sugar, and confectionery industries do not fully follow the international patterns observed in Central and Eastern Europe.

Two major factors are responsible for the industrial distribution of food processing FDI in Latvia:

1. Attainable market power has substantial appeal to foreign direct investments just like everywhere else in the region. In pursuit of dominant market positions, foreign food industrial investors achieved high influence both in typically popular industries for FDI and in sub-sectors allowing market leadership exceptionally in Latvia.
2. The fact that foreign investors did not manage to realise acquisitions in a number of typically popular industries is explained by the strong lobbying power of domestic owners. Tobacco, sugar and confectionery are purchased almost entirely in many countries of the CEE region by foreign investors, however, privatisation policy can hinder or slow down foreign acquisitions. Certain crowding out effects in the food industrial privatisation can be detected in all Baltic countries, but the case of Latvia provides a very clear precedent.

The industrial distribution of food processing FDI will be further investigated in Chapter 6 with the help of FDI-concentration maps. The concept will point out the strength of the above reasons and present a comparison among the Baltic food sectors.

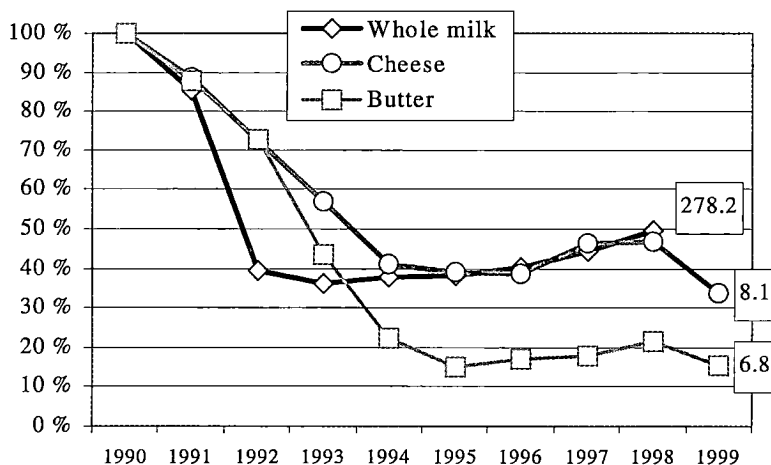
### **3.3. Industry Case Studies**

#### **3.3.1. Dairy**

Dairy industry has preserved its leading role within the Latvian food processing sector throughout the 1990s. The industry accounted for 18.4 percent of total food processing output in 1998 and employed 5,900 people, 15.9 percent of total labour force in food processing. Dairy products made up the second most important export item among foodstuffs, dairy export revenues accounted for 15 to 17 percent of total Latvian food exports during 1997 and 1999.

##### **3.3.1.1. Production**

The dynamics of dairy production reflect the overall contraction trends of Latvian food processing. Liquid milk and whole milk products decreased sharply



Note: figures in the boxes are in thousand tons.

Figure 26. Production of major dairy products in Latvia in 1990-1999, 1990=100% (Central Statistical Bureau of Latvia 1998, p. 36-41; 1999b, p. 216-218, 224; 2000c, p. 92-93).

already in the beginning of the 1990s. Butter production declined at a slower pace, but reached a record bottom level by the end of the decade (Figure 26). Cheese manufacturing was gradually affected by the recession, and the rate of the decrease stayed at the average level of dairy industry.

Two main factors explain the steep decline in production in the first years of independence:

1. Food export losses that equally haunted the foreign trade of the entire Baltic region explain the major part of initial decline. New borders disintegrated the conventional sales channels, and it took years to effectively re-establish them.
2. Domestic consumption experienced a painful decrease due to falling real incomes. Milk consumption fell to 70 percent of the 1993 level by 1998. Butter consumption was pushed down also by changing consumption patterns; consequently it decreased to 37 percent of the 1993 level. The only traditional dairy product, which became more popular, was cheese. It recorded a 5 percent increase between 1993 and 1998. Domestic consumption of dairy products calculated into milk equivalent fell to 77 percent of the 1993 level.

Table 20 uncovers the influence of export sales in the development of dairy production. Particularly the upsurge of cheese and butter was fostered by the recovery of export sales in 1997 and 1998. Then, declining exports dragged along production output in 1999 (Figure 25).

*Table 20. Production and export volumes of major dairy products, 1997-1999.*

Product	1997	1998	1999 I-XI.
Whole milk production (in thousand tons)	247.6	278.2	n.a.
Export (in thousand tons)	30.3	24.7	13.4
Export share (in %)	12.25	8.87	n.a.
Cheese production (in thousand tons)	11.1	11.2	8.1
Export (in thousand tons)	4.8	5.4	3
Export share (in %)	43.24	48.21	37.04
Butter production (in thousand tons)	7.8	9.4	6.8
Export (in thousand tons)	3	5.5	2.7
Export share (in %)	38.46	58.51	39.71

Sources: Central Statistical Bureau of Latvia 1999b, p. 216-218, 224, 265; 2000b, p. 117, 122.

### **3.3.1.2. Privatisation and Ownership Structure**

Due to its leading position in food processing, privatisation of dairy industry was designed with utmost care. A special law was enacted in 1993 to address the pressing demand of local milk producers.

Privatisation was conducted in two phases. The first phase covered small dairies with milk collecting and distributing activities. Raw material producers were entitled for the shares of the small dairies by law; ownership rights were allocated on the basis of farmers' claims.

The second phase involved the large state-owned dairy companies with diversified processing activities. The Law on the Privatisation of Dairy Enterprises prescribed 70 percent of the shares to milk producers or their cooperatives, less than 10 percent to employees and the remainder for the state (Jasjko et al. 1999, p. 97). Privatisation of the dairy companies proceeded fast due to the preferential terms, which were offered to farmers. However, milk producers did not fully utilise their opportunities and the rest of the shares were purchased by banks or other domestic corporate investors.

Privatisation process ended by 1996. The entire industry was converted into the ownership of domestic private owners. Milk producers gained the dominant proportion, although not quite as much as the law would have granted. Domestic businesses acquired the second largest piece in the industry.

### **3.3.1.3. Performance**

The declining production created redundant processing capacities in the dairy industry. In an environment of shrinking market demand, performance is usually

not measured by various accounting figures, it is measured by survival. Companies have been forced to compete aggressively for the pieces of a constantly reducing cake since the very beginning of the transition period. Latvian dairy industry consisted of several large processors of similar size and similar corporate power. Despite the same preconditions, some of the companies started to prosper, while others fell behind.

Corporate performance is the function of numerous factors that would each contribute to the prosperity of a particular dairy processor:

1. *Sales orientation.* The past decade has been an extremely volatile period for export-dependent dairy companies. Domestic market, albeit also decreasing, has proved to be a much more stable option for dairy sales. The few companies, which succeeded to gain EU certificate and redirected eastern exports to western markets or reinforced existing western sales, also enjoyed sure revenues. However, domestic market has stayed the primary source of prosperity for most of the successful Latvian dairy companies after 1998.
2. *Product-mix.* The small- or medium-scale dairies, which are primarily engaged in milk procuring and packaging activities, will undoubtedly be squeezed out of the market in the very near future, when consolidation eventually start to speed up. The majority of large dairy companies inherited a conventional product line including liquid milk, butter, curd and creams. Such a basic product group would hardly facilitate increasing market power even on the domestic markets. Consumption patterns have changed over the past ten years on the Latvian market. As real incomes rise, consumers turn towards differentiated dairy products of different flavours and fat content, highly processed desserts, yoghurts, and a wide assortment of cheeses. One of the key success factors is right positioning on the market with a continuous product differentiation strategy.
3. *Management.* Competition in the transition period presented a new type of challenge that managers of dairy companies were not necessarily well prepared for. Some managers have found extremely difficult to adapt to the changing circumstances, others have learned to control the challenges and opportunities. Good corporate performance necessitates the application of modern management techniques including product development, marketing, distribution and logistics as well as foreign language command and perceptive attitude towards new concepts.
4. *Financial strength.* The wealth of a company is itself a performance indicator, but it also greatly determines further success.

Open-minded and innovative company strategy requires additional capital. Financed by either reinvested earnings or external capital, investments into technology, R&D, or corporate organisation, are important preconditions of good performance.

5. *Ownership structure.* Owners are the ultimate decision-makers concerning corporate strategy, therefore, their importance equals to that of management. The privatisation method that was applied in Latvian dairy industry resulted in an ownership structure that affects performance in many aspects:

- 1) *Lack of capital.* The above requirements of good performance would necessitate access to working capital. Banks are reluctant to grant long term credits to the majority of Latvian dairy companies for their massive development needs. The present owners, primarily milk producers, are unable to provide capital, which narrows down the play-field of most dairy companies.
- 2) *A conflict of interests.* Milk producers constantly cope with financial difficulties. They are not able to fulfil the concurrent roles of being the owners and customers of the same company in financially such a pressing period. The difficulties of daily operations make them think short-term as opposed to a long-term attitude. In other words, their everyday existence commands to take the position and defend the interests of customers rather than of the owners.
- 3) *Non-motivated owners.* Selling shares has become an obvious option for farmers: it transforms hazy future revenues to quick real money with which they can ease the difficulties of daily operations. Non-motivated or frequently changing owners may increase uncertainty for dairy companies.

Besides the above conditions, company performance and success depend on many more factors such as high quality raw material, production technology, know-how, public and business relations, etc.

Aggregate profitability in the Latvian dairy industry was 3 percent in 1996, boosting eastern exports drew it up to 5 percent in 1997, while the returning sales problems let it fall to 1.5 percent in 1998. Since the best dairy companies attained much higher earnings that year, it is easy to calculate that several large dairy manufacturers were making serious losses. The diverging corporate performance will most probably decimate the dairy companies and give room for market consolidation in the coming years.

### 3.3.1.4. Market Power

Concentration started to grow already years ago, although it had a passive rather than an active nature. Market leaders did not strengthen their positions by acquisitions, but simply fill in the vacuum of market shares left behind by eliminated or failing competitors. The  $CR_4$  ratio rose from 36 percent in 1994 to 46 percent in 1996 (Jasjko et al. 1999, p. 100). Additional calculations discovered the continuation of the trend as  $CR_4$  was already 49 percent in 1997, although it slightly fell back by 1998. The current number of companies and the size of redundant processing capacities predict an acceleration of concentration growth in the industry in the very near future.

Table 21 carries extensive information on the market power and performance of the largest dairy companies. Besides sales-based market power, it displays the proportions of individual companies in total raw milk procurement. A ratio of the two positions informs about the effectiveness of “raw material conversion”; or with a more unusual phrasing: how many percent of market share is produced with one percent of the industry’s raw milk input. High ratio indicates an effective product-mix including high quality and highly processed dairy products. The top companies differentiate themselves from other competitors with special product lines such as ice cream, curd desserts, or rare cheese specialities. These product groups have relatively low raw material demand as

*Table 21. Industry structure in the Latvian dairy industry, 1998.*

	Industry shares based on		Ratio of market share to procurement share in the industry
	sales	procurement	
Rīgas PK	16.4	10.7	1.528
Rēzeknes PKK	11.6	12.4	0.933
Rīgas Piensaimnieks	11.4	6.2	1.840
Kurzemes Piens	7.1	6.3	1.125
Vidzemes Piens	6.8	7.4	0.912
Limbažu Piens	6.4	8.5	0.754
Tukuma Piens	6.2	8.4	0.743
Bauskas Piens	2.5	3.6	0.679
Rankas Piens	2.8	3.2	0.868
Cesvaines Piens	2.1	2.3	0.939

Sources: Own calculations based on information from Latvian Dairy Committee and Latvian Development Agency (1999).

Note: The table includes all companies above 6 percent industry share, and an illustrative group of companies below 6 percent of sales-based industry share.

opposed to conventional dairy products, but they form a high priced category. The best companies usually manage to achieve a dominant market position in one or more special products on the domestic market.

Raw milk usage is obviously one aspect of effectiveness. Highly processed special or niche products do require costly inputs like special technology and expertise. Still, product differentiation explains a substantial segment of success for the most prosperous companies in the Latvian dairy market. At the same time, low “conversion rate” of raw milk input into market shares refers to conventional product-mix, which predestines the company to stagnating sales and decreasing market shares for the future.

### **3.3.1.5. Foreign Investments – Why Are They Absent?**

Although some interest has been expressed on behalf of Danish and Italian dairy manufacturers, no strategic investment has been made into the Latvian dairy industry as of the beginning of 2000. The only foreign involvement is an indirect financial investment. Baltic Dairies, which is owned by several western investment funds and Estonian entrepreneurs is registered in Latvia, so its majority share in Tukuma Piens is considered domestic capital.

The absence of FDI raises a question: what kept foreign investors away from the leading industry of the dominant manufacturing sector in Latvia? Two weighty factors answer much of the question:

1. Foreign investors were consciously squeezed out of the privatisation by law, which definitely explains their absence in the first half of the 1990s.
2. As for the recent years, foreign strategic investors became very cautious. The Latvian dairy industry is before substantial structural changes. Due to under-utilisation of capacities several dairies will eventually have to be eliminated, and the strong ones shall reinforce their positions. Foreign investors presumably wait until market relations eventually clarify.

Foreign investments are badly needed in the Latvian dairy industry. They can bring the necessary capital and expertise for development in several fronts. The industry is now mature to receive foreign capital infusion. Based on CEE experience, market leaders have the biggest chance to attract FDI. Small but dynamically growing firms would also be probable recipients of foreign investments. The aspect of primary target market should be clearly recognised: dairy manufacturing FDI is usually motivated by the domestic market throughout the entire Central and Eastern European region, export potential to a third country does not direct their company choices. Nevertheless, FDI projects in the Estonian and Lithuanian dairy industries indicate also a slight preference for export-oriented firms. Still, Latvian dairy companies, which are well established



on the domestic market, are the potential investment targets for foreign companies.

### **3.3.2. Meat**

#### **3.3.2.1. Overview and Production**

Meat processing suffered the biggest decline among the Latvian food processing industries in the 1990s. It used to be the leading sub-sector with over 28 percent share in food processing output. Between 1991 and 1998 its share diminished to 11.9 percent (Table 15). The number of employees decreased from 9,916 to 4,091 during the same period. Compared to the pre-independence levels, production of meat dwindled to a mere 7 percent by 1999. The tremendous decline can be attributed to two factors:

1. In the pre-independence period, approximately 60 percent of the industry's output was sold to Russia. Eastbound meat export sales collapsed after declaring independence, but recovered slightly afterwards. Meat exports were hit once for all in August 1998.
2. Due to the removal of consumer price subsidies, domestic meat consumption fell from 83 kilogram/capita in 1990 to 57 kilogram/capita in 1996, which further exacerbated the sharp drop in meat production.<sup>22</sup>

#### **3.3.2.2. Privatisation, Ownership Structure and FDI**

The Latvian meat processing industry inherited 14 big meat factories (gaļās kombināts) from the soviet period. Privatisation began in 1993 and was completed in 1996. Similarly to the other main first-stage processing industries, a special law was passed to direct the procedure. Meat producers were granted less preference than milk producers in the dairy industry. Public tenders were used to carry out the privatisation of meat processing plants. Business plans had to be submitted to a privatisation committee, whose preference was to find a core owner for each company. Agricultural producers managed to attain the control package of several processing plants. A very peculiar characteristic in the meat industry is the concentration of shares they acquired. Agricultural producers obtained 80 percent in one of the largest processing plants Daugavpils gaļās kombināts, three farmers having over 51 percent of the shares. The control

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<sup>22</sup>The real decrease of domestic meat consumption has presumably been slighter than official statistics suggest. Rising meat prices induced a shift of purchases from commercial sources to home-grown meat.

packages of Talsu Gaļa and Jelgavas gaļas kombināts were each acquired by two farmers. Three persons gained 78 percent of the shares in Tukuma GPS, while a cooperative purchased Valmieras gaļas kombināts. The processing plants in Liepāja and Ventspils filed bankruptcy in the midst of 1990s.

Agricultural producers gathered a smaller share in the ownership structure of meat industry compared to that of the dairy industry. However, individual farmers and groups of producers managed to come up with surprisingly good business plans through the privatisation. This resulted in a 30-40 percent ownership share as far as the entire meat industry's company capital is concerned. Domestic private individuals attained an even bigger share by the end of the privatisation.

Three companies received foreign capital in the Latvian meat industry, of which the largest project was a strategic investment. The dominant company of Estonian meat industry Rakvere Lihakombinaat purchased 67 percent of the leading Latvian meat processor Rīgas Miesnieks in 1997. The Estonian company, in turn, was acquired by Finnish strategic investor HK Ruokatalo in August 1998. The new owners have implemented intensive technologic and product development at both subsidiaries and strengthened their initial control. Foreign ownership rose to 92 percent in Rīgas Miesnieks by 2000. The other two investments were much smaller in size and involved financial capital. Norway-Latvia Business Development Fund bought shares in AS Bulls a medium scale sausage manufacturer, and French Societe Financiere Floch & Marchand purchased minority shares in Tukuma GPS, one of the former state-owned meat facilities.

Although official statistics ignore, there is one more foreign investment in the Latvian meat sector. Kompeksim Nākotne was established as a Latvian-Swiss joint venture in 1993. Three years later Kompeksim Rīga, the Latvian affiliate of Swiss Kompexim bought 95 percent of the shares in the meat processor. Due to the indirect ownership relations, the company is registered to have involved domestic interest despite the foreign capital behind.

### **3.3.2.3. Market Structure and Performance**

The first years of transition saw a spectacular boom of establishing new meat processing companies and slaughterhouses. Compared to the 7 large slaughtering and 14 processing factories in the pre-independence period, the meat industry comprised 148 processing, 348 slaughtering, and 11 poultry cutting facilities as of 1998. Most of the newly founded enterprises are still small operations that tend to gain competitiveness with economising on hygienic and sanitary expenditures. By supplying the nearby local markets with fresh carcass meat, they have succeeded to capture a fair piece of the market. As a result, some of the large slaughterhouses operate at 20 percent of their capacity.

Despite the thriving number of participants, Latvian meat industry is very concentrated. Around 10 of the 148 processing companies are regarded large-scale facilities with over LVL 1 million of annual revenues. A similar structure characterises slaughtering where annual capacity exceeds 500 cattle units only in 45 of the 348 facilities.

Many small-scale establishments attained fair profitability with their cost-effective strategy in the first years. However, the large number of firms on the constricting domestic market inevitably resulted in fierce competition. Hence, the number of meat processing companies decreased slightly from its top figure in 1996, as a dozen enterprises fell in the subsequent two years. The tendency of “re-concentration” is predicted to continue and accelerate in the coming years. Stricter domestic supervision and EU hygienic and sanitary regulations will substantially reduce the number of slaughterhouses.

Performance is currently determined by the overcrowded production structure, tough rivalry and sluggish markets. Aggregate profitability of the industry was hardly above breakeven point between 1996 and 1999. Several large processors make losses, and the financial status of small-scale producers has also worsened. Capacity utilisation is very low, which raises production and maintenance costs (Gulbe and Šņuka 1999). Much of the equipment is outdated, since companies do not have sufficient earnings to reinvest into improvements of processing lines.

A painful rationalisation awaits the Latvian meat sector in the next decade. Processing technology will have to be upgraded to comply with the stricter hygienic regulations. Obsolete equipment and redundant capacities will need to be eliminated, which will result in shutting down numerous processing and slaughtering enterprises. An enormous amount of capital is required for the process, which can only be involved from external sources. Adjustment funds of the European Union are anticipated to take part in the modernisation and rationalisation process. The current status of meat industry is not appealing for further foreign investments, although they can be attracted with some co-financing opportunities into an intensely confined and clarifying market.

### **3.3.3. Fish**

#### **3.3.3.1. Historic Overview**

Geographic endowments predispose Latvia to exploit fishing opportunities. Co-operatives were established along the coast in the early 1900s, catches took place in the nearby waters.

The soviet rule changed the profile of Latvian fish industry substantially. An ocean fleet was maintained with high capacity storage and processing facilities. The fleet consisted of 89 Atlantic boats in the beginning of the 1980s. The

structure of fishing industry was shaped to follow the shifts in input supply and meet the requirements of the vast internal markets. Two types of canning facilities were set up in the 1940s and 1950s: fishing cooperatives (kolhoses) built canning primarily on Baltic Sea catches, while huge state-owned canning companies were established to process the fish originated from ocean catching.

Disintegration of the Soviet Union changed the set-up for Latvian fish industry again. The ocean fleet was eliminated due to reduced fishing access in the Atlantic waters and the high operational costs of uneconomical vessels. Fish catching was relocated to the Baltic Sea area.

### **3.3.3.2. Privatisation and FDI**

The fish industry was privatised between 1992 and 1996. Privatisation of fishing kolhoses was simply restructured into the form of limited liabilities or shareholding companies. Evidently, cooperative members and employees of the processing facilities remained the chief owners of the new companies.<sup>23</sup>

The other group of the companies included processing enterprises, which used to be established and owned by the state. These companies were restructured and privatised, the shares were sold to domestic corporate investors as well as private persons.

Foreign investors expressed an interest in the Latvian fish processors already during the privatisation process. Financial investors made the biggest acquisitions: Estonian Tallinvest bought 51 percent in one of the largest fish processors Brivais Vilnis, and Norway-Latvia Business Development Fund acquired 43 percent in Carnikava, a middle-scale canning factory. The biggest strategic investment was concluded in 1993, when German Drig-AI and the processing spin-offs of Mersrags fishing collective farm established a joint venture. Additionally, a Swedish company owns Banga Seafood International, while German capital is involved in Ric-Ocean. The fish industry attracted smaller amounts of FDI also from Ireland, the Netherlands, Russia and Ukraine. As a result, foreign ownership in the aggregate company capital rose to over 14 percent by 1998.

### **3.3.3.3. Industry Structure**

The period between 1995 and August 1998 was a time of vivid prosperity. Fish processing developed to be the most significant industry with 18.1 percent in the total output of the food sector in 1997. Even a year later, already hit by the eastern export crisis, it accounted for 14.9 percent and ranked second among the sub-sectors.

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<sup>23</sup> Although most companies have around 200 private owners, shares are often distributed unequally: 60-80 percent of ownership may be concentrated in a few hands.

*Table 22. Distribution of market power in the Latvian fish industry, 1999.*

Company group based on employment	Number of companies	Number of employees	Industrial output <sup>a</sup> (in thousand LVL)
1) over 250 employees	12	6,662	65,682.5
2) between 51 and 250 employees	14	1,713	17,776.9
3) under 50 employees	88	1,142	
Total	114	9,517	83,459.4

Sources: National Board of Fisheries; Latvian Development Agency 1999; Central Statistical Bureau of Latvia

Note: <sup>a</sup>Industrial output figures are from 1998.

Fish industry comprised 114 processing companies in 1999. Additionally, over 100 fishing companies were registered in the same year. The 12 largest processors employed 70 percent of the labour force and manufactured nearly 80 percent of total industrial output. The majority of fish processing companies belong to the third group in Table 22. They are small family-run enterprises that employ only a few people and supply the surrounding local markets with mostly fresh and smoked fish.

Since approximately 90 percent of the fish processing output is exported, overall industry structure based on total sales of the companies differ largely from their domestic market positions. Table 23 presents the concentration ratios of the four and eight largest companies in the Latvian fish industry. The leading companies were strongly geared towards exports in the observed period, since

*Table 23.  $CR_4$  and  $CR_8$  concentration ratios in the Latvian fish industry, 1996-1998.*

	Combined share in total industrial output (in %)			Combined shares of export sales (in %)			Combined shares of domestic sales (in %)		
	1996	1997	1998	1996	1997	1998	1996	1997	1998
$CR_4$	48.5	48.2	49.3	64.0	65.6	61.2	59.6	51.3	52.4
$CR_8$	63.1	62.8	70.1	86.0	85.6	88.0	68.3	66.6	71.0

Sources: Latvian Development Agency 1999; Agricultural Market Promotion Centre 1999, p. 6-8; various industrial sources

Notes: Combined shares in export sales and domestic market reflects the proportion of the largest  $k$  companies identified in the structure of industrial output. Due to relatively smaller domestic sales of fish industry's leading companies, real domestic  $CR_k$  ratios may be slightly higher than presented in the table.

their combined share in export sales permanently rose above their industrial weight. Although most Latvian fish processors had a primary interest in export opportunities, some medium-scale processors have established sizeable shares on the domestic market with specialising in fresh, smoked, cooled and culinary products or freshwater fish.

### 3.3.3.4. Export Sales – The Crisis of Fish Industry

Export sales opportunities have been the ultimate moving forces of Latvian fish industry in the 1990s. Production has reacted sensitively to the changes of foreign markets. The recent recession of the industry can be concretised to one single event: due to the financial crisis in Russia the price of canned fish dropped by 65 percent in just a few days in August 1998.

Table 24 demonstrates the turn of flourishing canned fish exports into a course of decay between 1997 and 1999. It is worth noting that after the first shock in the last quarter of 1998, canned fish exports did not fully stop, in fact only little decline was recorded in volume terms. Shipments in 1999 reached almost three-quarter of the peak year 1997. However, plain volume figures would give a deceptive picture. Eastern exports of canned fish ceased to be a profitable business. Some companies still continued even loss-making canning operations, others kept selling until their stocks emptied out. Money earning capability of canned fish exports reduced drastically between 1997 and 1999. While manufacturers earned LVL 474 on one ton in 1997, the average price of canned fish dropped to LVL 161/ton in 1999.

Since canned fish is the dominant product of Latvian fish processing, the losses are reflected in the overall industrial profitability. Fish industry achieved 4 to 7 percent profit rates while market environment was advantageous. Aggre-

*Table 24. Latvian fish exports by product groups in value and volume terms, 1997-1999.*

Year	Product group	value (in thousand LVL)	volume (in tons)	value/volume ratio
1997	<i>Fish fresh, chilled or frozen, and fillets</i>	4,992	13,530	0.369
	Canned fish	40,546	85,506	0.474
1998	<i>Fish fresh, chilled or frozen, and fillets</i>	5,453	11,636	0.469
	Canned fish	20,865	71,374	0.292
1999	<i>Fish fresh, chilled or frozen, and fillets</i>	5,475	15,872	0.345
	Canned fish	10,104	62,794	0.161

Sources: Central Statistical Bureau of Latvia 1999b, p. 216, 265; 2000b, p. 117, 122.

Note: figures encompass the period of January-November for 1999.

gate industrial profit exceeded LVL 5 million in 1997. Already in 1998, fish processing accumulated an LVL 7.5 million loss. The deterioration of performance continued in 1999, when the industry generated LVL 3.7 million of losses in the first half of the year.

The long-lasting sales difficulties shook the industry. Detrimental effects became well visible by 1999. Half of the large canning factories suspended manufacturing or entirely closed down business. Serious difficulties were experienced throughout the whole industry, even companies with foreign financial capital were not spared by the crisis.

Enterprises that did not fully rely on canned fish production were forced to search new opportunities and further diversify their product-mix. The viable firms responded to the changes with growing production of a wide range of other fish products. The product composition of the fish industry rearranged in 1999 (Figure 27). Non-canned fish accounted for 30 percent in the product structure in 1998, the share of the product group increased to over 50 percent in the first nine months of 1999. Frozen and chilled fish expanded the most and reached 30 and 13 percent in the product composition of the fish industry in 1999.

Nearly 90 percent of non-canned fish products were exported in 1999, three-quarters of the exports headed to the European Union. As of January 2000, nine companies had certificate to export fish products to the EU.

Although the industry was hit by a major crisis in 1998, there are real alternative options for recovery. The magnitude of canned fish exports may not

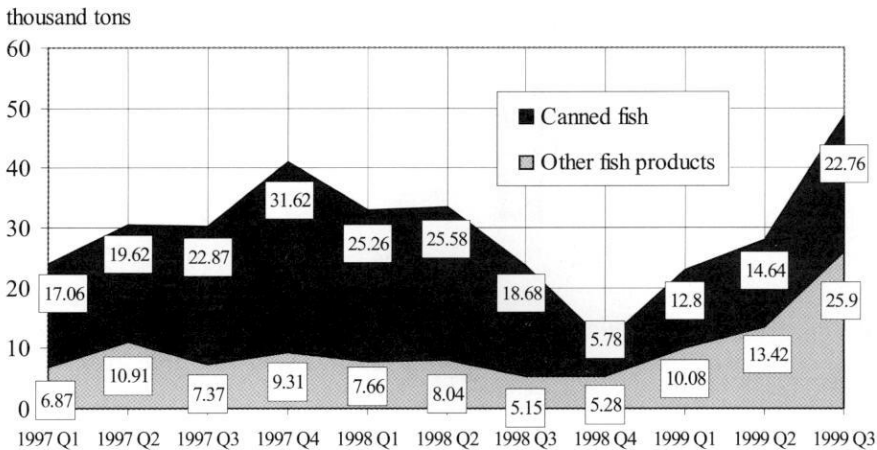


Figure 27. Production of canned fish and other fish products in Latvia, 1997 1<sup>st</sup> Quarter-1999 3<sup>rd</sup> Quarter (National Board of Fisheries, Ministry of Agriculture of Latvia).

be regained in the medium term, but even if eastern export sales recuperate, two important lessons have been learnt:

- (1) abundant revenues of propitious years have to be utilised with future perspectives in mind, and
- (2) no industry or company can afford being dependent on the affluence provided by one single product, a diversified product strategy should lower the risks of economic slumps like the one caused by eastern canned fish prices in the Baltic countries.

### 3.3.4. Milling

Grain processing comprised almost 15 percent of food industrial output in Latvia prior to independence. The structure of grain processing was rather concentrated. It included 9 large companies each having an annual processing capacity of 35-60 thousand tons. The number of enterprises increased over the recent years, 50 companies processed grain in Latvia in 1998.<sup>24</sup>

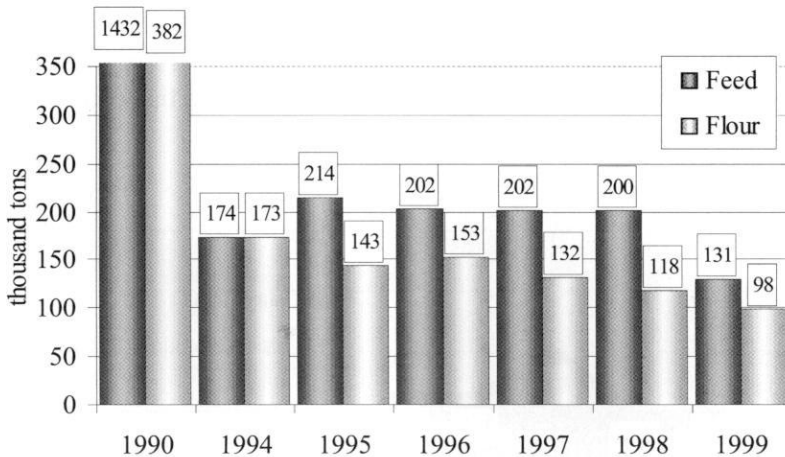


Figure 28. Feed and flour production in Latvia, 1990-1999 (Central Statistical Bureau of Latvia 1998, p. 36-41; 1999b, p. 216-218, 224; 2000c, p. 92-93).

<sup>24</sup>These facts include the combined figures of milling and feed mixing activities. Since most companies manufacture both flour and feed, separation of output into two industries is extremely difficult. Official statistics classify companies according to their major product line. Although the present point focuses on milling industry, many industrial characteristics discovered here also apply to feed manufacturing.



### **3.3.4.1. Production**

Production of the grain processing industries experienced a dramatic decline in the 1990s compared to the pre-independence levels (Figure 28). Since both feed and flour are intermediate products, the demand for meat and bread has largely determined their production (Figure 23). Feed production fell to 9 percent of the 1990 level by 1999 due to the collapse of eastern meat exports. At the same time, the contraction of flour production was moderate; it decreased to 25 percent by 1999 due to its reliance on the relatively stable and domestic-market driven bakery production.

### **3.3.4.2. Ownership Structure and FDI**

Milling industry was privatised later than other major food processing industries. The process started in 1995 and elapsed to 1997 (Počs and Počs 2000). Privatisation of grain processing companies was governed by a special law, which provided agricultural producers and their cooperatives with preferential rights. Accordingly, grain producers acquired the majority stakes of several significant milling enterprises by the end of privatisation. Domestic private owners had the second largest share in the industry followed by a small portion of employees.

Foreign investors arrived to milling industry when privatisation had been completed. The most important strategic investment was made into one of the largest mills of Latvia, Rīgas Dzirnavnieks. The majority package was purchased from agricultural producers jointly by Swedish Nord Mill, an affiliate of Cerealia (65 percent of shares) and Finnish Melia Oy (10 percent). Prior to this largest transaction, foreign investors had already appeared in the milling industry by an inter-industrial acquisition, when Finnish majority owned bakery Hanzas Maiznicas incorporated Rēzeknes Dzirnavnieks to be its internal supplier. Additional foreign capital flowed into the grain sector through the privatisation of Riga Port Elevator in 1998. The investment made by British Danton Exim Trans Ltd, however, is statistically not recorded in grain processing; it is registered in the capital structure of trading sector.

Although based on 1998 sales, Dobeles Dzirnavnieks was the largest mill in Latvia, Rīgas Dzirnavnieks had a predominant share in the aggregate company capital structure of milling industry. Consequently, the foreign acquisition of Rīgas Dzirnavnieks changed the ownership structure at once: the share of foreign ownership grew above 53 percent in the industry in 1998.

### **3.3.4.3. Market Structure**

About 35 new feed plant and mills were established in the grain processing industries in the 1990s. Private persons founded most of the new mills, grain

*Table 25. Indicators of market structure in the Latvian milling industry.*

Company	Scope of activities	Monthly milling production <sup>a</sup> (in thousand tons)		Market share <sup>b</sup> based on sales (in %)
		Wheat	Rye	
Dobele Dzirnavnieks	wheat milling and feed	2.5	-	28.0
Rigas Dzirnavnieks	mainly milling, both wheat and rye	1.5	0.4	22.0
Daugavpils Dzirnavnieks	milling and feed	0.6	0.3	8.1
Rēzeknes Dzirnavnieks	milling and feed	0.6	0.3	7.9
Total milling industry	..	8	2	100.0
Share of the four largest mills (in %)		65.0	45.5	66.0

Sources: Cereal Trade Agency; Agricultural Market Promotion Centre 1999, p. 24-25; Latvian Development Agency 1999, p. 40-42, 108-110.

Notes: <sup>a</sup>1998 figures, <sup>b</sup>1997 figures

producers launched only a few of them. The new establishments did not manage to capture a considerable market share from the large mills before the end of the decade.

Latvian milling industry consisted of 28 companies in 1998. The sub-sector has uncommonly concentrated structure; the four largest companies had a combined market share of 62 percent, while the ten largest mills controlled practically the entire market in 1996 (Jasjko et al. 1999). Table 25 illustrates the structure of market power by monthly production volumes and annual sales revenues.

#### **3.3.4.4. Vertical Relations and Performance**

The special privatisation law created vertical interdependence that has induced bitter conflicts of interest within the grain sector. Grain producers acquired majority ownership in numerous mills during privatisation. Thus they became both owners and suppliers of the processing companies at the same time, which implied the co-existence of confronting interests. Selling the shares of mills has been a tempting option for agricultural producers to resolve financial difficulties of daily operation. Although mills also suffer from reduced demand, they are in stronger positions compared to farmers. Grain processors hold all the grain storage capacity, which further strengthens their negotiating power. Agricultural producers are anticipated to offer their shares of mills for sale, provided corporate strategic investors raise additional demand.

Performance figures of milling industry indicate around 5 percent profitability for 1998 and 1999, however individual company performance differs greatly.

Old-fashioned management attitude has driven some of the large mills on the verge of bankruptcy. The producer dominated ownership structure did not promote business prosperity. As market has diminished, the problem of capacity utilisation has constantly increased in the whole industry. Since flour offers limited opportunities for product differentiation, mills attempt to tighten connections to second-stage processing by establishing long-term supplying channels to bakeries.

Companies that apply modern management and marketing techniques as well as diversify into high value added cereal products would have a chance to survive and grow on the market. The large mills usually operate with old technology and high expenses. Small mills use a variety of processing lines from second-hand eastern machinery to state-of-the-art western equipment. Although both small- and large-scale mills form diverse groups, two main streams of strategy can be detected according to company size. Small mills tend to be more flexible and perceptive to respond to market changes and demand than many large mills do. Some local experts anticipate that small mills may eventually break the hegemonic market power of large companies, unless the large ones modernise technology, lower costs and apply a market-driven management approach.

### **3.3.5. Bakery**

#### **3.3.5.1. Production**

The crisis of food processing associated with transition was translated into rapidly falling production in the Latvian bakery industry. Major part of the decline is explained by full re-orientation of the industry into the domestic market and a sharp drop in bread consumption due to rising consumer prices. Latvian bread market has reduced constantly over the past decade and the decrease is predicted to continue in the next years.

Despite the shrinking market, bakery is an important sub-sector of Latvian food processing. Its share ranged between 11 and 12 percent in the second half of the 1990s, which was equivalent to the significance of the meat industry.

#### **3.3.5.2. Privatisation**

Privatisation of the bakeries were also directed by a special law, like in the case of dairy, meat and milling industries. A similar concept was adapted as in the privatisation of meat processing enterprises: bakeries were offered to core investors. The majority of the companies were privatised during the period of 1994-1996. Employees were entitled to attain between 5 and 25 percent in individual companies, the state's pension fund was authorised for less than 10 per-

cent by law (Jasjko et al. 1999). Domestic private and corporate owners, who acted as majority investors, acquired the control packages in most bakeries.

### 3.3.5.3. Market Structure and FDI

The Latvian baking industry was rather fragmented even prior to privatisation. Out of the 166 registered bread manufacturers in 1995, five factories produced over 5 thousand tons, 32 companies between 1 and 5 thousand tons, while the rest of the bakeries had less than one thousand tons of annual production volume. Four of the largest five bakeries merged into one corporate entity in 1994, which signified a tremendous leap in the concentration of the baking industry. AS Rīgas Maiznieks, SIA Baltmaiznieks, AS Abra and SIA Rēzeknes Maiznieks established Hanzas Maiznīca, which became the absolute market leader with 26 percent market share in 1997 (Figure 29). The merger redrew market power relations of the top manufacturers, but the structure of medium-scale bakeries remained fragmented. Bread production totalled 132 thousand tons in 1997. Out of the 292 registered enterprises, three manufactured more than 5 thousand tons and 31 companies produced between 1 and 5 thousand tons of bread.

The first foreign investors arrived early to the baking industry, Austrian and German investors participated already in the privatisation process (Jasjko et al. 1999). Hanzas Maiznīca attracted the largest amount of foreign capital inflows;

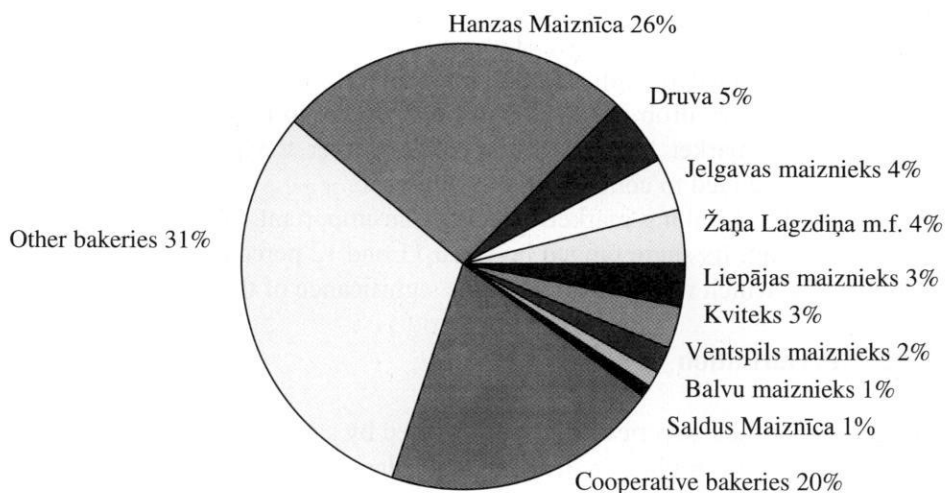


Figure 29. Market structure in the Latvian bread market by sales, 1998 (Hanzas Maiznīca).

the bakery department of Finnish Cultor concern<sup>25</sup> purchased 51 percent of the shares, while the remainder stayed in the ownership of Ave Lat Group. From a wider perspective, the bakery and biscuit industry received another significant foreign capital infusion, as a US financial investor Signet New Capital Markets bought the control package in AS Staburadze, a major biscuit, cookie and cake manufacturer.

### **3.3.5.4. Performance**

Bakery industry has recently shown low but stable profitability ranging from 2 to 3.5 percent between 1996 and 1999. The market leader has developed a nation-wide distribution network and runs 15 shops on its own. Medium-scale companies supply the surrounding region in a maximum of 50 to 100 kilometre radius, while small bakeries and individual entrepreneurs usually cover their hometown area.

Due to the characteristics of bread markets, geographic coverage embodies a key issue of market power: a regional or a nation-wide distribution network can facilitate corporate growth. Apart from the market leaders, Latvian bakeries are not strong enough to purchase each other. This raises the question: will common interest of growth force the birth of additional alliances in the industry? The precedent of Hanzas Maiznica launched the process of market concentration. It will definitely continue either by further acquisitions of the market leader or by reactive steps of the competitors.

### **3.3.6. Sugar**

#### **3.3.6.1. Production**

The birth of Latvian sugar processing dates back to the 1920s, when the first sugar refining plant was established in Jelgava. Two more sugar factories were constructed in Jekabpils and Liepaja in the following decade.

The three factories operated with full capacity in the soviet time. Production was based on cane imported from Cuba. Cane-based production amounted to 290 thousand tons or 85 percent of total Latvian sugar production in 1980. Sugar extracted from beet used to have an inferior share until 1990 (Figure 30). Sugar manufacturing suffered from a serious economic crisis between 1991 and 1993. Production dropped to one-fourth of the pre-independence level. Cheap imported input channels and the large purchasing markets were cut off with new borders.

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<sup>25</sup> The name of the Finnish investor changed in the meantime, since Cultor detached its bakery department, which then continued to operate as an independent company under the name of Vaasan & Vaasan Oy.

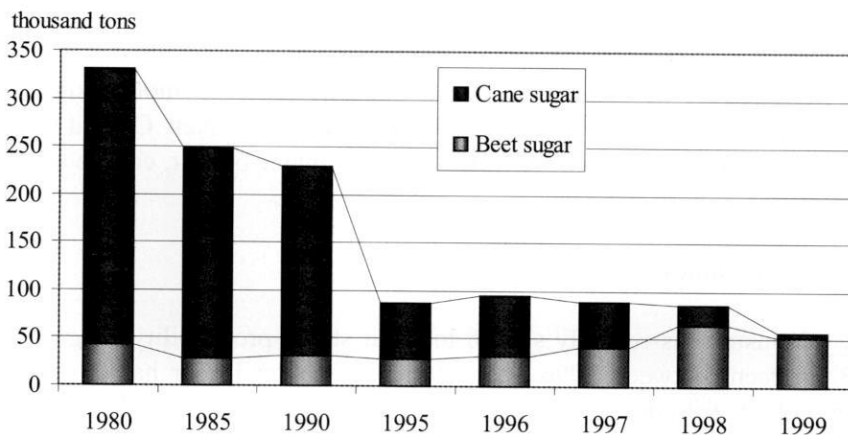


Figure 30. Latvian sugar production in 1980-1999 *Latvijas cukurs*; Central Statistical Bureau of Latvia 1998, p. 36-41; 1999b, p. 216-218, 224; 2000c, p. 92-93.

The new priority objectives changed to promote sugar beet production; sugar manufacturing in Latvia was completely shifted to domestic raw material base by the end of the 1990s. Other raw material was gradually expelled, while extraction from domestic sugar beet stabilised around 60 thousand tons in the end of the decade.

### 3.3.6.2. Ownership Structure and FDI

Privatisation of the three sugar manufacturing companies was completed between 1993 and 1995. Initially, foreign investors expressed great interest in Latvian sugar industry. Both Finnish Cultor and Danish Danisco took part in the bidding process, however their purchase offers fell short on the tricky details of tender requirements.

The 1993 “Law on Sugar” was designed to govern the privatisation of sugar processors. Domestic raw material producers were granted preferential opportunities to participate in the privatisation with certificates. Consequently, farmers acquired 56 percent of the shares in Jelgava, 38 percent in Jekabpils and 31 percent in Liepaja. Managers and employees of the sugar companies captured 7 to 9 percent in each factory (Figure 31). Although a clear preference was declared to foster the proprietorship of farmers, foreign investors managed to purchase over one-third of the shares in two factories. A British sugar trading company *Man* used to be in unique position for foreign trade of Latvian sugar before 1996. *Man* got involved in the modernisation of Jelgava Sugar Plant as early as in the beginning of its privatisation. After privatisation was completed in 1995, the British company attained 35 percent of the shares with a concurrent

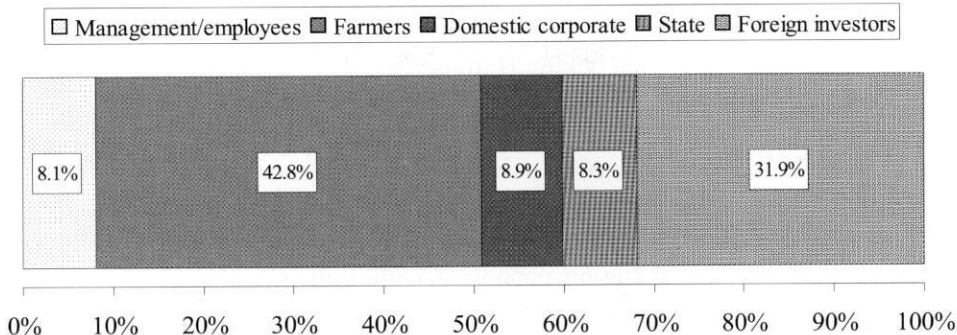


Figure 31. Ownership structure of Latvian sugar industry in 1999 (*Latvijas cukurs*).

capital increase. Similarly, a Russian trading company acquired 35 percent in Jekabpils Sugar Plant by the end of privatisation, which share was later increased to 47 percent.

Sugar production is greatly affected by politics all over Europe, Latvia makes no exception from this rule. The “Law on Sugar” allowed a maximum of 49 percent share per company for external strategic investors. At the same time, serious efforts were made to reinforce the vertical strings in the industry, sugar beet producers and employees were involved in the privatisation, even the state retained a small portion in the industry by holding one-fourth of Liepāja Sugar Plant. Shares of raw material producers can be sold in a closed system only to other shareholders.

### 3.3.6.3. Performance and Future of the Latvian Sugar Industry

It is always hard to define the real performance of an industry so harshly dependent on political decisions like sugar. Performance of the Latvian sugar factories has developed as the resultant of many forces.

The *first important factor* in chronological order was brought about by the *crucial changes in the international economic context* for sugar industry. With the re-established independence of the country, cheap cane imports and sure sales channels were detached entirely. Sugar production dropped to a fragment of its previous levels in just a couple of years. Redundant capacities imposed a tremendous pressure on the industry, which was driven to a deep recession between 1991 and 1993. The crisis endangered the performance and even the very survival of sugar industry including all individual sugar factories.

The *second important factor* that shaped the performance of Latvian sugar industry is *policy*. Being aware of the international situation, sugar beet growers

and processors initiated an assembly of farmers, sugar factories, political decision makers, and researchers in the end of 1990. An interest representative organisation called Latvijas cukurs (Latvian sugar) was established to address the emerging challenges. Two main objectives were set for the industry: (1) to focus on the domestic demand and (2) to use locally produced sugar beet for sugar manufacturing. These objectives have governed activities during the entire 1990s. The sharp shift from foreign trade relations towards domestic orientations in terms of both raw material and sales was a compelled reaction of sugar industry to the changing economic environment. In order to promote domestic sugar manufacturing, even a "Sugar Production Stimulation Fund" was established and operated until 1996 (Briedis and Laže 1996).

Policy supported the domestic orientation of sugar industry with effective isolation from the world market. Import duties have raised the prices high enough for Latvian sugar to stay competitive on the domestic market. This resulted in fair profitability of both sugar processing and sugar beet growing. Sugar manufacturing companies were eventually able to begin the badly needed modernisation of manufacturing technology. Therefore, an excessive proportion of profit was re-invested into technical improvements.

The *third factor* that has had an impact on the performance of sugar industry is *individual behaviour of the three manufacturers*. Although the same policy and industry initiatives were effective for each company, their historically inherited status, economic strength, and particular management attitude were rather divergent. Redundant capacities remained an ever more pressing burden on the limited domestic market. In their attempts to attain higher scale economies, the three companies entered into tough competition behind the scenes. Jēkabpils Sugar Plant was eventually squeezed out of the saturated Latvian sugar market. The company filed bankruptcy and was taken over by a bank (Unibanka). Sugar beet growers, Russian investors and other owners lost nearly half million LVL with the failure. The other two sugar factories continue production and gradual modernisation of technology.

There is a *fourth factor* that has harmfully affected the performance and market achievements of Latvian sugar manufacturing companies. Every year 20 thousand tons of sugar is estimated to appear illegally on the Latvian market. *Smuggling* is a serious problem for Latvian sugar producers, as the estimated figure draws away one-fifth of Latvia's total sugar consumption.

The need for concentrated production suggests sore structural changes for the future. Current sugar manufacturing technology allows exploiting scale of economies with constantly increasing annual output per manufacturing unit. The production minimum is considered 100 thousand tons in the western countries. This implies serious restructuring for Latvian sugar industry in the future. Hypothetically one modern sugar manufacturing company would be sufficient to supply the entire domestic market, which has serious implications for the



current industry structure and the level of employment. The coming sugar quota is believed to total about 100 thousand tons once Latvia joins the European Union. The amount and distribution of the quota will make an impact on domestic sugar beet growers, sugar manufacturers and even on consumers.

### 3.3.7. Beer

Latvian beer production boasts with centuries of history. The predecessor of Cesu Alus was established in 1590 as the oldest brewery in the Baltics. The history of many other Latvian breweries date back to the 1800s.

#### 3.3.7.1. Market Structure

Beer production, like other food processing industries, used to have concentrated market structure in the soviet regime. Presently, Latvian beer industry constitutes an intermediate structure between the Estonian and Lithuanian models. As opposed to Estonia, it has numerous small- and medium-scale breweries, which operate in sound economic conditions, although the number of micro-breweries stays well below the corresponding Lithuanian figure.

Over a dozen new companies have been established in the 1990s. The number of beer and malt producers rose to 24 by 1998. AS Aldaris has an absolute dominant position with a market share ranging from 50 to 60 percent over the past five years. The rest of the companies can be classified to medium- or small-scale manufacturers. The combined share of the 15 smallest companies stays well below 10 percent.

#### 3.3.7.2. Ownership Structure and FDI

Beer manufacturing was among the first food industries to be privatised in Latvia. Domestic owners, mainly employees and managers or other private persons seized all the small and medium-scale breweries. The dominant company, Aldaris was privatised in 1992; 75 percent of the shares were directly sold to Baltic Beverages Holding, a Swedish-Finnish strategic investor, while 25 percent was purchased by domestic individuals. AS Rīgas Alus, the second largest

*Table 26. Structure of Latvian beer industry, 1998.*

Market share intervals	over 50 %	49-15 %	14-5 %	4-1 %	under 1 %
Number of companies	1	0	2	6	15

Sources: Latvian Beer Association; Agricultural Market Promotion Centre 1999, p. 24-25.

beer manufacturer with around 11 percent market share was acquired by AS Rīgas Vīni, which belongs to the Ave Lat concern. Aldaris was the only FDI recipient in the Latvian beer industry for years, until AS A. Le Coq, the Estonian affiliate of Finnish Olvi Oyj bought control package in AS Cēsu Alus in 1999. Cēsu Alus is one of the medium size breweries with 4 percent market share in 1999; it pursues ambitious plans for technology development and corporate expansion.

Since Aldaris has a stronger weight in the aggregate company capital of the Latvian beer industry, than its market share, the share of foreign-owned capital was over 55 percent in 1998. With additional FDI inflows<sup>26</sup>, the share of foreign capital rose to 61.3 percent by the first half of 1999. Despite high foreign participation, the Latvian beer industry is still not characterised by such a tough competition among financially strong production subsidiaries of foreign companies as Estonian and Lithuanian beer markets. Latvian beer manufacturing has been a relative “calm and windless” terrain that has avoided the direct confrontation of large western beer manufacturers. The predominant position of Aldaris has undoubtedly kept new entrants on a hold. Still, Latvian beer market has place for two or three strong strategic foreign investors.

### **3.3.7.3. Performance and Market Coverage**

Concerning average figures, beer manufacturing has been a profitable business in Latvia. Industrial profitability ratio moved around 10 percent between 1996 and 1999. Profit performance of individual breweries, however, differs considerably. The dominant company achieved nearly 20 percent. Consequently, small- and medium-scale breweries often reported much more moderate profitability, some companies even generated occasional losses.

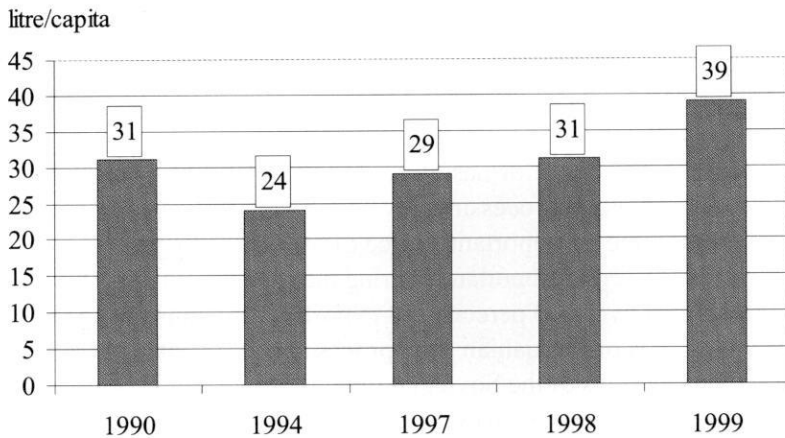
Out of the Latvian beer manufacturers only Aldaris covers the entire domestic market with its own distribution network. Rīgas Alus and Varpa concentrate mainly on Riga and the surrounding markets, while small- and medium-scale breweries supply the nearby areas. The geographical distribution of beer plants is slightly uneven, most micro-breweries are situated in Central and Eastern Latvia.

### **3.3.7.4. Consumption**

Beer consumption is rather low in international comparison, which has been explained by consuming traditions and the price ratio of spirits and beers in Latvia. Yet, beer production is among those rare food industries that have

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<sup>26</sup> Official statistics for the first half of 1999 also include an investment from Denmark and a smaller FDI from Russia in addition to the purchase made by AS A. Le Coq.



*Figure 32. Beer consumption in Latvia, 1990-1999 (Hartwall Annual Report 1999, p. 24).*

constantly expanded in the second half of the 1990s. Production is driven by a recovery of domestic consumption, which regained its pre-independence level by 1998 and continued to grow rapidly in 1999 (Figure 32). Consumption is anticipated to expand in the coming years, until it catches up with the level of other Baltic countries.

## **4. Lithuania**

### **4.1. Overview of Food Processing**

The agricultural and food sector has always been of crucial significance in the Lithuanian economy. Food processing developed impressively between the two world wars and became an important source of export earnings.

Food sector preserved its importance during the soviet regime. Self-sufficiency continued to be well over 100 percent, but export destinations changed substantially. The main focus of Lithuanian food processing was switched to supply the vast homogenous markets of the Soviet Union with mass production. Production capacity was enlarged with extensive investments primarily in the dairy, meat, milling, and feed industries. Raw material supply was developed accordingly. Tight and well-established vertical relations were under thorough control.

After regaining independence, the shrinking domestic and export markets and the detached segment of agricultural inputs afflicted the food processing sector like in the other two Baltic countries. Most of the internal problems of the sector originated from the development concept of soviet time. The food processing industries inherited outdated technology, oversized processing capacity, low labour productivity, and quality problems (Girgždienė and Kuodys 1998a).

#### **4.1.1. Significance of Food Processing in Lithuania**

Food processing is the single most important branch of manufacturing; it has traditionally accounted for one-third of Lithuanian manufacturing output. The dominant role of food processing persisted in the 1990s, since food processing composed over 30 percent of manufacturing sales until 1996. Since then, it has constantly been losing its high weight. Divergent growth rates of manufacturing industries and falling food outputs are responsible for the abating share of food processing.

Recovery in the Lithuanian manufacturing set off in the middle 1990s. Food production grew moderately by 2 percent in real terms in 1997, whereas the growth rate of clothing, wood processing, chemical and electronics industries exceeded 10 percent. The food sector's share continued to fall in 1998 due to a decrease in production volume terms compared to 1997 (Figure 33). Recently, the share of food processing within manufacturing did not reduce further, since Russian economic crisis triggered both manufacturing output and food industrial sales.

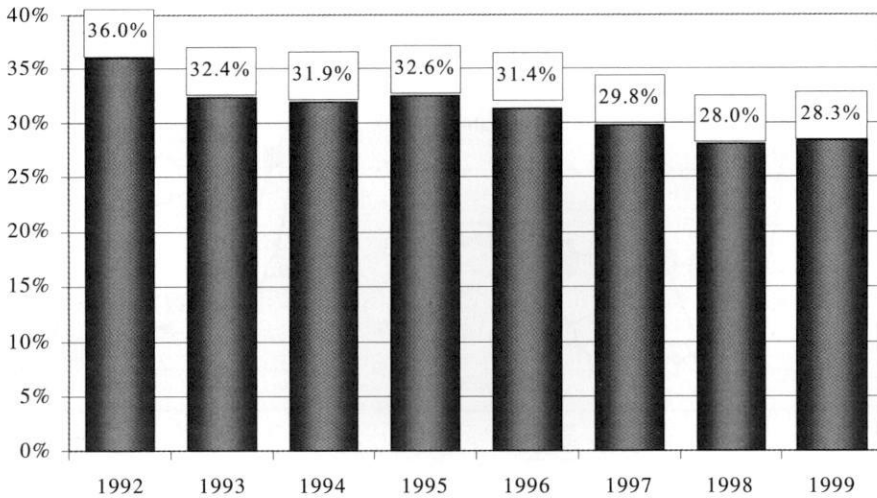


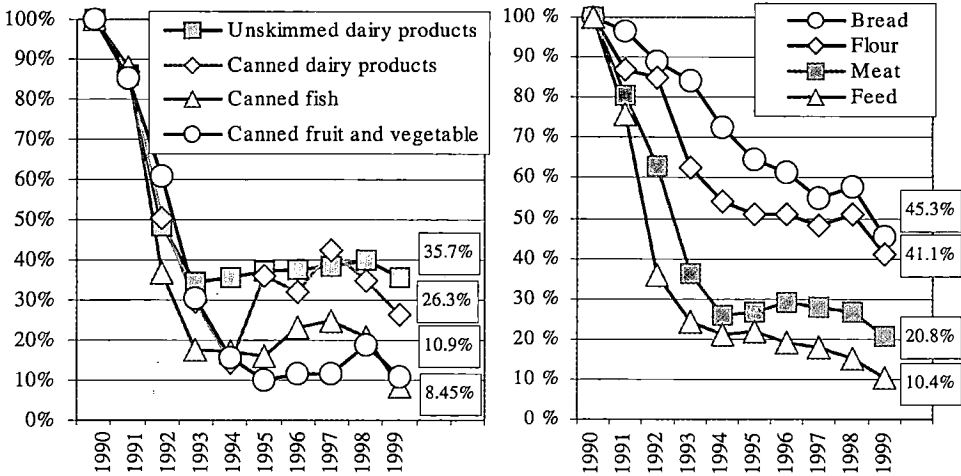
Figure 33. Share of food processing within the manufacturing output of Lithuania, 1992-1999 (UNIDO 1997, p. 409-411; Statistics Lithuania 1998c, p. 260; 1999j, p. 262; 1999g, p. 10; UN 2000, p. 75).

#### 4.1.2. Food Production

The output of the food processing sector plummeted drastically in the largest sub-sectors in the beginning of the 1990s. The decline of dairy and meat processing stopped in 1993-1994, production stabilised at 30 to 40 percent of the 1990 level by 1997. The canning industries – canned fruit and vegetable, canned fish, and canned milk – experienced an even more dramatic drop. These industries descended as low as 10 percent of the 1990 level by 1999 after a transient upsurge in the second half of the decade (Figure 34). Canning industries particularly suffered from the 1998 Russian economic crisis.

Figure 35 presents an excellent illustration of the parallel move of inter-related industries of the same processing chains. The divergent decline rates of two industry-pairs, ‘bread-flour’ and ‘meat-feed’ are worth of attention. Bread is sold primarily on the domestic market, while meat products were highly export-dependent, which explains its much deeper drop.

As Figures 34 and 35 indicate, the effects of economic crisis in the transitional period varied largely among the individual food processing industries. Some industries apparently adapted to the altered circumstances better or more rapidly than others did. Table 27 represents the structural realignment among the food industries between 1993 and 1998.



Figures 34 and 35. Production trends of selected food items in Lithuania based on changes of production volumes, 1990-1999, (1990=100 %) (Statistics Lithuania 1999j, p. 274-276; 2000a, p. 79-80).

#### 4.1.3. Industry Composition in Food Processing

As far as relative weights are concerned, dairy, beer and bakery have expanded their significance within the food sector. Soft drink industry also grew remarkably, albeit at a minor scale. Fish and meat processing decreased the most, while sugar manufacturing joined the supplanted group of industries in 1998. The structural realignment is attributable to many factors:

- ◆ a shift in consumption patterns towards relatively cheaper goods,
- ◆ the substitute role of imported products,
- ◆ the growing direct consumption of food produced in the household plots and family farms,
- ◆ illegal trade, and
- ◆ varying export performance.

The above factors affected the performance of individual food processing industries to a different extent. The impacts sum up in success or failure measured as the relative weight in the food sector's structure. Changes in percentage points are intended to capture the altering positions of particular industries.

Fading export sales explain the 11 percentage point fall in the *meat processing industry's* share between 1993 and 1998. Alternative sales channels such as market places or private client relations and the direct sales of small slaughterhouses are not registered in industrial sales. The dramatic drop, therefore, demonstrates the position loss of the large meat processing companies within the food sector.

The relative share of *fish industry* halved between 1993 and 1998. Fish products have always been manufactured for the Eastern markets primarily in the form of conventional cans. The Lithuanian market was not big enough to absorb the large fish production in the 1990s. Even in 1996-1998 only half of the fish products were sold domestically. The big canning factories are in serious difficulties, canned fish production dropped from 28.4 thousand tons in 1990 to 2.4 thousand tons in 1999. Some of the small and medium sized companies have a healthier product mix including highly processed fish products that sell well on the European markets. Their proportion, however, is still quite moderate to have a visible impact on the total performance of the fish industry.

*Vegetable oil* processing is a dynamic industry but production output is diminutive compared to that of the leading industries. At present, the large majority of vegetable oil is imported to Lithuania. The size of the market and the growing consumption suggest potential prospect for the industry.

*Table 27. Composition of the processing industries in the Lithuanian food sector, 1993-1998.*

Industry	1993	1994	1995	1996	1997	1998	Change from 1993 to 1998 in percentage points	1993 to 1998 in % (share points 1993=100%)
Meat	26.06	20.00	17.59	16.01	15.43	15.06	-11.00	57.8
Fish	6.00	2.64	1.90	2.28	2.09	2.43	-3.57	40.5
Fruit and vegetable	1.57	0.81	1.07	0.75	1.07	1.32	-0.24	84.5
Vegetable oil	0.39	0.64	0.85	0.83	0.90	1.03	0.64	264.5
Dairy	25.96	25.02	30.48	30.63	30.19	34.60	8.65	133.3
Milling	3.46	3.72	6.72	7.58	7.30	6.63	3.17	191.6
Starch	0.03	0.03	0.03	0.03	0.05	0.20	0.16	584.2
Feed	6.97	9.07	6.54	6.94	6.74	5.77	-1.20	82.8
Bakery	6.46	8.70	8.77	8.50	7.93	8.83	2.37	136.6
Sugar	5.30	3.91	4.92	6.00	7.43	2.27	-3.02	42.9
Confectionery	2.74	6.16	6.61	6.45	6.09	4.72	1.98	172.3
Pasta	..	..	..	0.00	0.08	0.11	..	..
Other	0.04	0.12	0.13	0.59	0.14	1.57	1.53	4362.5
Distilling	7.37	10.00	5.56	5.14	4.33	4.01	-3.36	54.4
Wine	3.78	3.82	4.11	3.48	3.14	2.91	-0.86	77.2
Beer	3.81	5.21	4.35	4.41	5.63	6.52	2.70	170.9
Soft drinks	0.06	0.15	0.39	0.36	1.46	2.00	1.94	3445.9
Total	100	100	100	100	100	100	-	100.0

Sources: UNIDO 1997, p. 409; data from Industry Statistics Unit, Statistics Lithuania

Note: Calculations are based on industrial sales figures in current prices.

*Dairy industry* increased its share spectacularly with over 8 percentage point by 1998. Dairy and meat industries were equally important branches of the food sector until 1993, while in 1998 the share of dairy products were over double the share of meat industry. The accomplishment<sup>27</sup> is due to the performance of a few large and vital companies with impressive success in most sales channels. They conquered the domestic market, shifted a notable amount of sales to western markets, and managed to maintain a certain level of sales in the volatile eastern markets even after the August 1998 economic crisis (see Figure 41).

The growing significance of *milling and bakery*, both increasing their shares with around three percentage points, is mainly associated with the restructuring consumption patterns from more expensive food items such as meat to relatively cheaper cereal-based products. Similarly, *beer* has enjoyed the benefits of changing consumption habits on the expense of strong alcohol. *Distilled products* have been losing share to beer also because of unequal excise taxes.

*Sugar processing* companies have serious sales difficulties on the domestic market due to smuggling, illegal trade and the vast stocks that have accumulated over the past years. These problems culminated in 1998 dropping that share of the sugar industry to 2.3 percent as opposed to the previous years of 4 to 7 percent share.

*Soft drink industry* was negligible in the beginning of the 1990s. It has shown an impressive development in the recent years, its share was 2 percent already in 1998. The industry achieved this growth with no local production of the two multinational soft drink manufacturers in Lithuania.

#### **4.1.4. Number of Enterprises**

In the soviet time a controllable number of companies characterised both agricultural production and food sector. After regaining independence, the economic reforms brought about substantial changes in the enterprise structure of most food processing industries. The oversized state-owned manufacturing concerns used to incorporate several production facilities in different locations. Large companies were often split into their constituent units through privatisation. Moreover, economic freedom fostered the establishment of new enterprises. Hundreds of small-scale enterprises have been set up in the Lithuanian food processing sector in the recent years. The number of companies in the bakery industry alone grew by 115 enterprises between 1993 and 1998. Small ventures did not grow sufficiently big to present a challenge to the large companies, although their aggregate market power became noticeable by the end of the decade. The new establishments captured a fair share in the meat and milling

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<sup>27</sup> It should be noted that the success of dairy industry is measured with a relative indicator here, the dairy sector is also coping with serious difficulties as described in Point 4.3.1.



*Table 28. Number of enterprises in the Lithuanian food processing industries, 1993-1998.*

	1993	1994	1996	1997	1998
Meat	19	36	103	108	99
Fish	9	13	26	23	26
Fruit and vegetable	13	11	21	20	18
Vegetable oil	1	2	4	3	1
Dairy	47	52	59	60	48
Milling	9	14	29	31	35
Starch	1	1	1	4	3
Feed	14	16	14	15	15
Bakery	56	68	134	162	171
Sugar	4	4	4	4	4
Confectionery	5	6	7	6	7
Pasta	-	-	1	4	5
Other	1	2	6	10	16
Distilling	4	5	4	4	4
Wine	2	2	2	2	4
Beer	15	16	19	20	26
Soft drinks	3	9	22	28	36
Tobacco	2	2	1	1	1
<b>Total</b>	<b>205</b>	<b>259</b>	<b>457</b>	<b>505</b>	<b>519</b>

Sources: UNIDO 1997, p. 406; data from Industry Statistics Unit, Statistics Lithuania

Note: Data for 1995 were not available.

industries, but play a subordinate role in the dairy and particularly in the beer industry.

#### **4.1.5. Structure of Domestic and Export Sales**

Lithuanian food sector used to be highly export-oriented. Although the role of external markets decreased in the 1990s, they still made up one-quarter of total sales in 1998. Bakery, milling and sugar industries traditionally supply domestic markets. The recent growth of beer and soft drink industries also relies predominantly on domestic demand. Distilling and meat processing industries, once having a notable share of exports, were reduced to home markets by 1998. Domestic demand absorbed over 90 percent of sales in these industries. Confectionery industry had a high share of exports until 1998 that deteriorated drastically in 1999. Domestic sales difficulties and booming pet food sales to Western Europe invigorated the export sales of feed industry (Table 29). Fish industry is still export-oriented but its weight has diminished in total food sales.

*Table 29. Share of domestic market in total sales of the Lithuanian food industries, 1996-1998.*

Industry	1996	1997	1998
	(in % of total industrial sales)		
Meat	85.8	76.8	92.9
Fish	53.0	40.0	51.8
Fruit and vegetable processing	79.8	88.8	85.3
Vegetable oil	85.2	91.1	n.a.
Dairy	57.2	51.7	56.0
Milling	99.3	88.0	93.8
Starch	100.0	100.0	71.3
Feed	91.7	58.2	35.4
Bakery	91.5	97.5	99.2
Sugar	92.0	99.3	95.4
Confectionery	71.4	54.3	64.5
Distilling and wines	80.5	89.2	92.9
Beer	98.0	97.0	99.5
Soft drinks	96.0	99.1	99.7
Total	77.8	72.7	75.6

Sources: Statistics Lithuania 1998b, p. 8-9; 1999h, p. 16-17; 2000b, p. 16-17; direct data from Industry Statistics Department

Dairy industry is undoubtedly the ultimate driver of Lithuanian food exports. It comprised 20 percent of the country's total food exports in 1998, when over 40 percent of the dairy products sold on foreign markets. The export position – although worsened in 1999 – did not deteriorate as severely as in the case of other industries. Dairy companies succeeded in recapturing a considerable part of eastern markets after the 1998 crisis compared to meat processors, whose losses were overwhelming (see Figure 41 and Figure 42).

#### **4.2. FDI in the Lithuanian Food Processing**

Foreign direct investments flowed slowly to the Lithuanian food sector until the middle of the 1990s. Privatisation concept of food industries was the main reason for low foreign participation. It preferred the involvement of raw material producers and employees of the companies in a number of sub-sectors. Agriculture and food processing underwent a serious restructuring process and production output declined dramatically at the same time. This environment made foreigners reserved and cautious in their decisions. Given the level of risk involved, powerful investors arrived first to the Lithuanian food sector. Multi-national companies brought a great deal of initial foreign capital.

#### 4.2.1. Significance of Food Industrial FDI in Manufacturing FDI and Total FDI

Owing to the large size of the first food industrial foreign investments and to the slow privatisation of other sectors, the share of food processing FDI stock in manufacturing and total FDI stock exceeded the shares that food processing sector makes up in total manufacturing output and the Lithuanian economy (Figure 33 and Figure 36). By 1995, food sector had absorbed nearly 40 percent of FDI in manufacturing and 17.5 percent of total foreign investments, whereas it accounted for 32.6 percent of manufacturing output and 8.5 percent in the Lithuanian GDP in the same year.

The significance of food sector as an FDI recipient declined slightly by 1999, but stayed over 35 percent in manufacturing FDI. The share of food processing FDI stock in total FDI stock, however, dropped to 11.3 percent by the first half of 1999. These figures lead to different assessment on the level of manufacturing and total FDI stock:

1. *Share in manufacturing FDI.* The popularity of food processing industries as foreign investment target within the manufacturing sector has been persistent. The fact that food processing accumulated 36 percent of foreign investments in the manufacturing

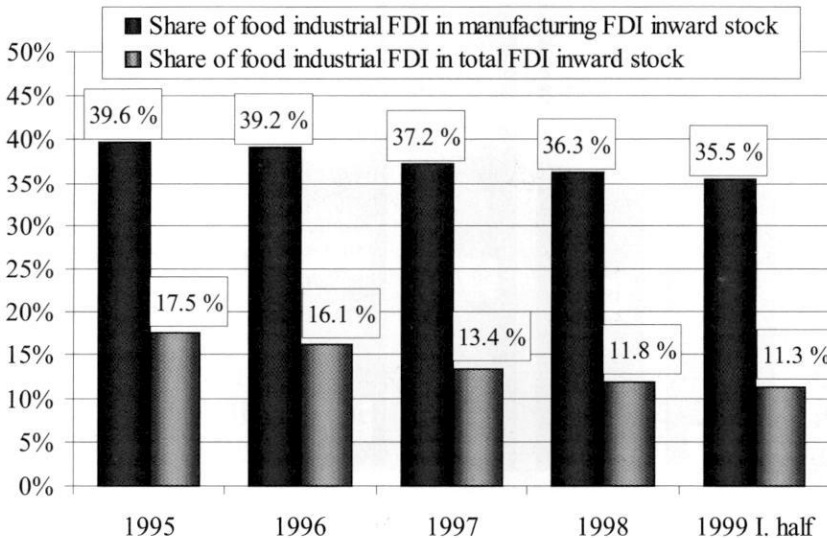


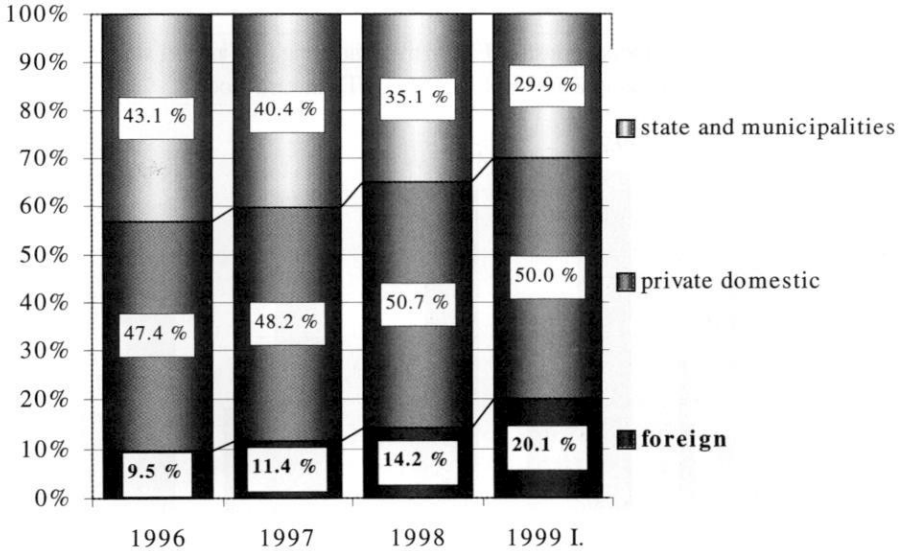
Figure 36. Share of food industrial FDI stock in manufacturing- and total FDI inward stock in Lithuania, 1995-1999 I (Statistics Lithuania 1998a, p. 13; 1999d, p. 13).

while its output fell to 28 percent by 1998 (see Figure 36) is a sign of stable popularity and preference that foreign investors have shown towards food processing as opposed to other manufacturing industries. The shares also suggest that food sector has certain advantages over other manufacturing industries.

2. *Share in total FDI.* The distinct drop of the share of food industrial FDI stock in total FDI stock is explained by the privatisation schedule of various sectors. Food processing was one of the first branches to be privatised, while privatisation of the services sector was postponed to the second half of the 1990s. As state began selling the service branches, some of them such as telecommunication, banking and transportation attracted immense foreign investment projects. These FDI projects supplanted the initially high share of food sector in total FDI stock by 1999.

#### 4.2.2. Foreign Ownership in the Lithuanian Food Processing

Most of the food processing industries was privatised by the beginning of 1999. Only a few objects were left for sale in the large sub-sectors such as meat, grain and dairy. One significant industry, distilling was still in state ownership in



Note: Calculations are based on aggregate registered company capital.

Figure 37. Ownership structure in the Lithuanian food processing sector, 1996-1999 I (Statistics Lithuania 1997a, p. 8; 1999a, p. 37-38; 1999b, p. 23).

1999, privatisation was scheduled for 2000. The industry has earned special privatisation treatment due to its stable output in absolute volume terms and high value-added of distilling.

Foreign ownership increased impressively in the capital structure of the Lithuanian food sector. Figure 37 illustrates both the pace of proceeding privatisation and the growing participation of foreign capital. The ownership shares of foreign investors exceeded 20 percent in the aggregate company capital of food industries by the first half of 1999.

The two-step ownership change can be detected also at the arrival of food industrial FDI to Lithuania. The dominant companies in the confectionery and tobacco industries were sold directly to foreign investors in the beginning of ownership reform. Foreign investors have purchased notable shares in the dairy, sugar and beer industries since privatisation was completed. Shares were acquired from the new private owners such as agricultural producers, employees, private persons or domestic enterprises. A few instances have also been registered in the feed and meat industries, although special regulations aimed to keep farmers from selling their shares in dairy, meat and grain processing industries to external investors.

#### **4.2.3. Special Characteristics of Food Industrial FDI in Lithuania**

In the analysis of FDI, three special factors can be identified that characterise particularly the foreign investments received by Lithuanian food processing:

1. The initial *concentration of food industrial FDI* resembles the Estonian patterns. FDI was allocated among a few recipients in the food sector until 1994. Even as late as in 1995, altogether 27 companies, or 8.1 percent of the food processing enterprises attracted foreign investments. The tendency changed in the subsequent years. Foreign investors still favoured large investment projects, but at the same time the number of involved Lithuanian firms increased to 63 or 12.1 percent of total food processing companies in 1998. By the end of the decade, foreign investors gained confidence in the Lithuanian food sector and started to invest also to medium size companies.
2. The second special characteristic is the *high participation of financial investors in the Lithuanian food industrial FDI*. Strategic investors pursued to conquer traditionally popular sub-sectors such as confectionery, beer, sugar and tobacco industries. They expressed limited interest in the large sub-sectors of first-stage processing. Financial investors, on the other hand, appeared in the milling, meat and beer industry and have played a significant role in the dairy industry.

Table 30. Number of FDI recipients in the Lithuanian food sector, 1995-1998.

	1995	1996	1997	1998
Number of FDI recipients in the food sector	27	41	53	63
Number of total food enterprises	334	457	505	519
Share of FDI recipients (in %)	8.1	9.0	10.5	12.1

Sources: UNIDO 1999 p. 432; Statistics Lithuania 1998, p. 13; 1999d, p. 13, Vilnius.

Table 31. Major investing countries in the Lithuanian food industry, July 1999.

	USA	Denmark	Finland	Sweden	Germany	Others	Total
Food FDI (in million LTL)	196.0	140.9	95.7	84.7	29.0	298.8	845.1
Total FDI (in million LTL)	1,084.8	674.4	744.3	1,361.9	576.7	3,025.4	7,467.5
Food FDI share (in %)	18.1	20.9	12.9	6.2	5.0	9.9	11.3

Source: Statistics Lithuania 1999d, p. 16.

3. The third characteristic is the *composition of investing countries*. Foreign investors can be divided into three distinct groups *based on their geographic origin*. *Multinational food processing companies* with primarily of U.S. background form one group with 23 percent of investments. Three Nordic countries, *Denmark, Finland and Sweden* together account for 38 percent of FDI in the Lithuanian food sector. The group of Scandinavian companies includes a few multinational concerns and numerous smaller enterprises, which had been successful in their domestic markets and broadened their regional strategy in the 1990s. The *third group includes* other EU countries as well as Russia, the Baltic neighbours and *financial institutions*.

Table 31 illustrates that Denmark and the USA have largely favoured food processing industries allocating about one-fifth of their investments into the food sector. Finland also had a high share of food processing investments, nearly 13 percent of its total FDI, while average share of food processing in total FDI stock stayed at 11.3 percent.

#### 4.2.4. Industrial Distribution of FDI

Foreign investors prioritised certain food processing industries just like everywhere else in the CEE countries. Most first stage processing industries such as

*Table 32. FDI stock in the Lithuanian food sector by processing industries (in thousand LTL), 1996-1999<sup>a</sup>.*

Industry	1995	1996	1997	1998	1999 I. half
Meat	..	4,059	2,740	4,359	5,357
Fish	..	1,769	6,212	7,390	8,787
Dairy	..	49,897	53,371	54,111	46,692
Feed	..	35,671	45,618	61,702	71,213
Bakery	..	1,885	3,802	4,749	4,970
Sugar	..	8,204	9,005	52,848	92,556
Confectionery	..	73,531	104,563	93,510	99,177
Beer	..	71,468	103,259	209,662	226,860
Soft drinks	..	10,075	11,393	53,717	13,063
Other <sup>b</sup>	..	195,661	215,985	222,731	276,412
<b>Total food</b>	<b>246,075</b>	<b>452,220</b>	<b>555,948</b>	<b>764,779</b>	<b>845,087</b>

Source: Statistics Lithuania, Construction and Innovation Statistics Unit

Notes: <sup>a</sup>Status at the end of period. <sup>b</sup>The collective category 'Other' includes vegetable and fruit processing, vegetable oil production, milling, starch and tobacco.

meat, fish processing and milling industry have not attracted much foreign capital. The two exceptions are feed and dairy industries.<sup>28</sup>

The most popular targets have been second stage processing industries following the common trends of FDI distribution among food sub-sectors in the CEE countries. Both sugar and confectionery manufacturing absorbed over 10 percent of food processing FDI, while beer and tobacco industries each received 25 to 30 percent. They together account for over half of total food FDI.

### **4.3. Industry Case Studies**

#### **4.3.1. Dairy**

The dairy industry has been the flagship of the Lithuanian food processing sector. Between the two world wars, it was famous for its butter exports to Western Europe. In the soviet rule, the industry was heavily concentrated containing seven huge regional milk processing concerns and four specialised dairies. Milk production declined sharply in the first years of independence from over 3 million tons in 1990 to 1.8 million tons in 1995. Production showed

<sup>28</sup>The official foreign investment data in the case of feed industry seem rather over-reported, while in the case of dairy industry figures appear to be more moderate than they are supposed to be based on industry sources.

recovery in 1997 and appears to stabilise at the level of 2 million tons (Figure 38).

#### 4.3.1.1. Raw Material Supply and Vertical Relations

Raw material supply became the most problematic segment in the dairy chain. In 1990, more than half of the raw milk was delivered by large enterprises, who provided homogenous quality in large shipments. Small-scale private and household farms, who usually hold 1 to 5 cows, produced 87 percent of the milk in 1998. Average milk yield per cow decreased to 3,384 kilograms, which is the lowest in the Baltic States. The herd size should be 30 to 50 cows and the average yield level should reach 5,000 kilograms in order to make raw material supply efficient. The share of procured and processed milk at private farms indicate the shift to home consumption and market-place sales in the 1990s (Figure 38).

Another critical aspect of raw material supply is quality. Out of the production of private and household farms, only 20 percent are qualified as high or first grade milk. Second grade milk comprises 71 percent of the raw material procured by dairy companies (Bajorunaite 1998).

Milk procurement has been further complicated by the price intervention of the government since 1995. A price subsidy is paid to farmers, concurrently

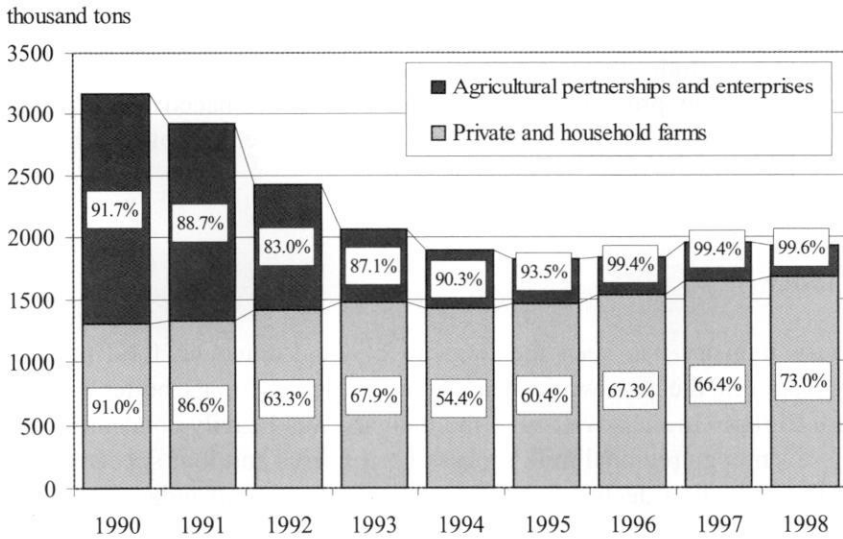


Figure 38. Milk production in Lithuania, 1990-1998. Figures in the boxes indicate the share of procured and processed milk in the total production of agricultural enterprises and private farms (Statistics Lithuania 1999j, p. 390-393).



*Table 33. Profitability of milk production in Lithuania, 1995-1998.*

	1995	1996	1997	1998
Average sales price (in LTL/ton)	583	693	684	715
Average sales cost (in LTL/ton)	509	589	615	633
Profit (in LTL/ton)	74	104	69	82
“Profit to sales revenue” ratio (%)	12.7	15.0	10.1	11.5

Source: Statistics Lithuania 1999j, p. 395-396.

minimum procurement prices are set for processors. This measure affected the operation of processors notably, since raw material makes up 50 to 70 percent of the production costs of dairy companies. On the other side of the coin, minimum purchase prices and government subsidies to farmers have resulted in the fair profitability of milk production in the recent years (Table 33). Nevertheless, the fact, that second grade milk receives considerable subsidies, preserves the unfavourable quality structure of raw material supply.

Dairy companies attempt to strengthen vertical relations to raw material producers to ensure better quality and constant supply. They make long term agreements with the best suppliers. The financially strong processing companies even offer higher procurement prices, assist farmers with various loans or investments such as refrigerators to improve the quality of raw milk (Bajorunaite 1998).

The largest dairy companies pursue to have a hold over the entire vertical chain including the trading segment. Their logistic and marketing efforts have been focused on establishing nation-wide distribution systems. The traditionally divided regional markets in the pre-reform period were transformed to fierce competition over the entire domestic market. The largest companies have developed their own distribution networks. One of them has broad wholesaling activities and owns a network of 22 retail outlets (Bajorunaite 1998).

#### **4.3.1.2. Financial Status and Performance**

After gaining independence, the number of milk processing companies increased rapidly both by splitting up the large dairy concerns and by establishing new enterprises. Nearly 60 dairy companies were in operation in 1995. At the same time, the growing prices of inputs and the diminishing export markets pushed many companies into financial difficulties; 20 of them went bankrupt or joined other stronger dairy processors in the recent years. Out of the 60 operating companies, 17 stopped raw milk procurement entirely in the years of 1996 and 1997. In 1998, 48 companies had milk procurement activities.

*Table 34. Basic financial data of the major Lithuanian dairy processing companies.*

Company	Sales revenues (in million LTL)		Profit (in million LTL)	
	1998	1999 1-3Q	1998	1999 1-3Q
Žemaitijos pienas	213.5	98.7	14.5	1.3
Rokiškio sūris	205.8	131.5	27.3	19.3
Pieno žvagždės	183.8	105.7	6.9	3.1
Marijampolės pieno konservai	162.5	74.2	-8.3	-14.9
Biržų APB	128.4	107.2	1.9	0.3
Panevėžio pienas	100.8	55.2	7.8	3.4
Utenos pienas	78.3	39.3	-1.3	-1.2
Šiaulių pienas	66.6	26.2	-2.6	-7.1
Alytaus pieninė	62.6	30.1	-0.9	2.4
Klaipėdos pienas	53.5	46.1	-2.2	3.1
Kauno pienas	43.8	27.0	0.2	0.5
Kelmės pieninė	40.8	20.8	0.5	-0.8

Source: Lietuvos rytas/Vartai, 1999 No. 74 and 284.

Many of the functioning firms have serious financial difficulties; ten companies out of the largest 24 dairy processors were loss-making in 1998. Their aggregate sales amounted to LTL 531 million, while they accumulated LTL 31 million of loss. The sales revenues of profitable dairy companies totalled LTL 995 million and profits before taxes were LTL 58 million. Even the profitability of the successful companies dispersed noticeably, the four best achieved 8 to 11 percent, while the rest of the companies usually had no more than 3 percent.

#### **4.3.1.3. Market Structure and Concentration**

The Lithuanian dairy industry consisted of a dozen large and approximately 40 small-scale companies after privatisation. The high number of participants on a saturated market inevitably resulted in the elimination of the weak ones and the consolidation of the strong ones. The intensifying competition propels the concentration process in the Lithuanian dairy industry. Concentration has increased by three different ways:

- ◆ large companies acquire each others,
- ◆ fusions/mergers,
- ◆ large companies acquire small ones.

In the first two options, the primary objective is to increase production and grow on the market. The last option usually results in shutting down the small company. Processing activities are taken over to the parent company and the subsidiary is converted into a milk collection point. Concentration has been driven by four large and successful companies who consolidated their positions by focusing on strategic product lines and shifting sales into stable markets (Figure 39).

*AB Žemaitijos pienas* has long corporate history; the company has grown dynamically in the 1990s. Between 1994 and 1997, several modernisation projects were completed that increased quality and efficiency. The company sells 60 percent of its products on the secure domestic market. Exports to western countries form nearly 20 percent of sales. *AB Rokiškio sūris* is the largest cheese manufacturer in the Baltic States. The company produces over 40 percent of Lithuania's total cheese production. The majority of the company's products are exported, 44 percent went to Western markets and 36 percent to Russia in 1998. The high quality and highly processed products such as fermented cheese make the company one of the most profitable dairy processors in Lithuania. *Biržų APB* constantly reinforced its domestic market position by increasing the share of domestic sales from 45 percent in 1993 to 62 percent in 1998. The company controlled nearly 20 percent of the domestic dairy market at the end of 1999. The main product lines are yoghurts, desserts and other fresh milk products. *AB Mažwikių pieninės* specialises in butter, casein and skim milk powder production. Butter was exported primarily to Russia in 1998; skim milk powder products are sold to well-established markets such as Japan and Western Europe. The company's share is seven percent on the domestic market.

*Concentration process* started as early as in the beginning of the 1990s. *AB Mažwikių pieninės* has owned two dairies in Akmenė and Skuodas since 1990. In 1997, the company acquired the dairy plant in Taurage. In 1998, a new company, *Pieno žvagdės* was established by merging with the prosperous cheese manufacturer in Pasvalys.

*AB Rokiškio sūris* acquired several dairies in Lithuania. Zarasai and Ukmergė dairy plants have been consolidated into the company. The controlling package of Utėna dairy was acquired primarily to further secure the constant raw material supply.

*Biržų APB* has developed from a medium-sized company to one of the market leaders in a few years. It acquired processing facilities with strategic location in the major cities (Kaunas, Vilnius) as well as the well-managed Panevėžys dairy.

*AB Žemaitijos pienas* focuses production activities in Western Lithuania, but pursues an aggressive marketing and sales strategy in the entire country. The control packages of Klaipėdos pienas and Šilutės Rambynas were purchased in 1997 to ensure the pace of production growth.

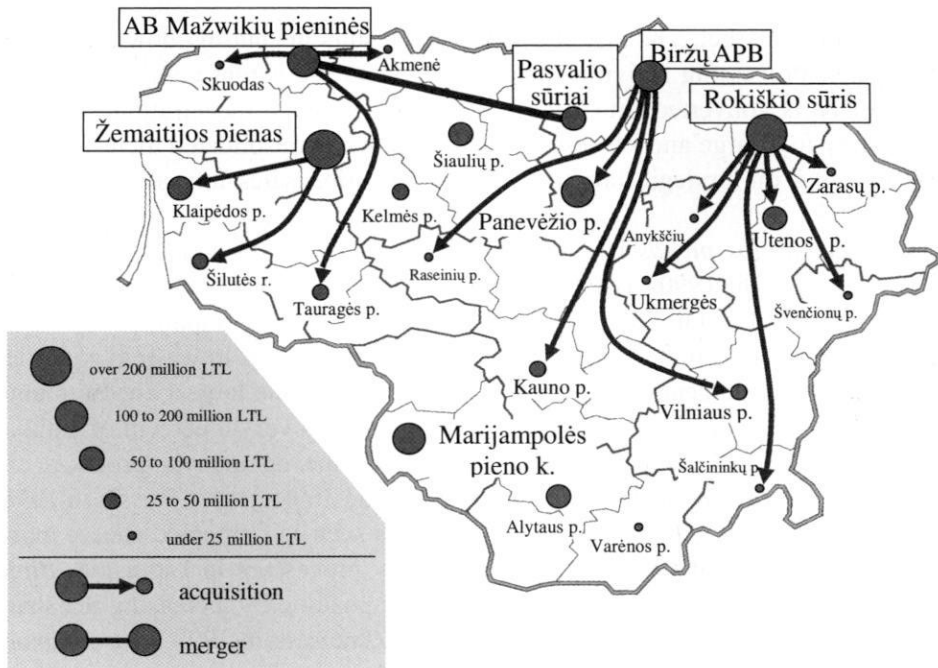


Figure 39. Concentration in the Lithuanian dairy industry (Lietuvos Rytas, March 1999).

Table 35 presents the growth of concentration ratios in the Lithuanian dairy industry.<sup>29</sup> All concentration indicators were fairly stable until 1996, but grew sharply in the subsequent two years. The jump of  $CR_4$  from 35.5 percent to over

Table 35. Concentration ratios in the Lithuanian dairy industry based on procurement figures, 1994-1998.

Concentration ratio	1994	1995	1996	1997	1998
$CR_3$	24.5	27.3	29.3	38.4	45.2
$CR_4$	29.7	34.4	35.5	46.5	56.4
$CR_{10}$	55.7	61.4	61.1	75.3	83.5

Sources: 1994 – Girgždienė et al. 1998; from 1995 to 1998 – own calculations, data source: Lithuanian Dairy Association.

<sup>29</sup> Concentration indicators were calculated based on the amount of procured raw milk. Figures include mergers and acquisitions that resulted in changes in the control packages of companies.

56 percent is the direct result of the spreading strategy of the four companies in Figure 39. Consolidation is anticipated to continue at the same rate, the four largest companies are predicted to control 75 percent of the Lithuanian milk market by 2000 (Deksnyš and Krasaukas 1999). Although 50 to 60 percent of the Lithuanian dairy products has been exported in the recent years, the strong market positions of the leading companies are equally pronounced also on the domestic market.<sup>30</sup> The share of the four largest processors in the domestic market was estimated to exceed 50 percent in 1998.

In 1998, the dairy industry consisted of 48 companies, of which only a dozen are considered to have significant influence on the domestic market. The small-scale enterprises focus exclusively on the domestic markets, they contributed with about 20 percent to the domestic sales of the dairy industry. Since their sales revenues remain under LTL 20 million, only a few of them are projected to survive. Small companies, who produce speciality products or target market niches, have fair survival chances (Deksnyš and Krasaukas 1999).

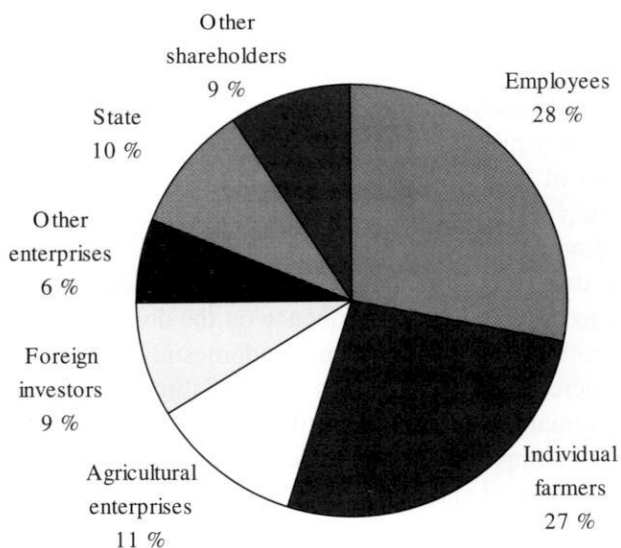
#### **4.3.1.4. Ownership Structure and Foreign Investments**

After regaining independence, the large dairy concerns were restructured and disintegrated into numerous small and middle-sized companies. Privatisation started in 1992, but out of the 33 milk processing companies on the privatisation list only three firms (Biržų, Rokiškio Sūris and Jonavos pieninė) were sold in the first wave. Milk producers were reluctant to participate, since the process was rather complicated and they lacked financial resources and adequate information. They became much more active in the second and third phases of privatisation, when modified privatisation regulations offered them considerable advantages. The degree of privatisation increased to 78 percent in April 1997 and reached 95 percent by the beginning of 1999.

Foreigners did not participate in the initial phase of privatisation. An extraordinary characteristic of the Lithuanian dairy industry is the high involvement of financial investments. The sub-sector has hardly received any strategic investments, the ice-cream manufacturing facility of the Finnish Ingman Foods is a rare exception. Dairy companies, however, have attracted a considerable amount of capital from financial investors such as EBRD, Namura or Bankers Trust Company. The strong interest of the particularly cautious financial capital is a clear sign of trust towards the Lithuanian dairy industry and its future prospects. Foreign investors have achieved majority package in two of the four largest

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<sup>30</sup> Domestic market shares differ from the procurement-based concentration ratios or the shares of individual companies in the Lithuanian dairy industry's aggregate sales revenues, since the level of value added and the involvement of the dairy firms in the domestic and foreign markets vary largely by individual companies.



Note: Figures are based on a survey completed in the Lithuanian dairy industry by Lithuanian Institute for Agrarian Economics in 1998. The survey results include 17 companies and cover 84 percent of the industry by milk procurement terms.

Figure 40. Ownership structure in the Lithuanian dairy industry in 1997 (Girgždienė and Kuodys 1998b, p. 6).

companies, Biržų APB and Rokiškio Sūris and own a minority share in a third one, AB Žemaitijos pienas.

The ownership structure in the dairy industry was dominated by domestic private capital as of 1997 (Figure 40). The share of foreign ownership was estimated to grow from 9 percent in 1997 to 15 percent in 1998, while the state retained 5 percent. By 1999, the share of dairy industry capital controlled by foreign investors increased to nearly 30 percent due to the rapid concentration process driven primarily by foreign owned companies.

#### 4.3.1.5. Trade

The amount and value of imported dairy products has declined to one-third of the 1995 level by 1998 (Table 36). This is partly due to import protection (20 percent for milk products, 30 percent for cheese and 45 percent for butter), but to a large extent it is explained by the development of domestic dairy processing companies, who rapidly widened product assortment to highly processed and value-added goods. Presently, Lithuanian dairy companies cover about 90 percent of the domestic consumption of dairy products.

Table 36. Sales revenues, export sales of the Lithuanian dairy companies and import of dairy products, 1995-1999 I (in million LTL).

	1995	1996	1997	1998	1999 I. half
Total sales of dairy companies	1,200	1,454.8	1,553.5	1,689.7	n.a.
of which export sales	657.3	759.4	787.6	765.0	180.1
Import of dairy products	226.0	195.2	119.2	81.1	27.2

Sources: Statistics Lithuania 1999e, p. 30, 74-76; 1999f, p. 22, 55.

The successful export growth of the Lithuanian dairy industry was broken by the Russian crisis in August 1998. Despite the additional efforts and incentives, export sales did not recover to the pre-crisis level (Figure 41).

The large investments at the end of the soviet era made the Lithuanian dairy industry “overcapitalised”, which resulted in severe excess capacity problems in the 1990s. Dairy industry depends heavily on export markets. Since traditional Russian markets became unstable, dairy industry faced the challenge of turning into new markets, primarily to Western Europe, USA and Japan. As of December 1999, 17 dairy processing plants had licence to export to the European Union.

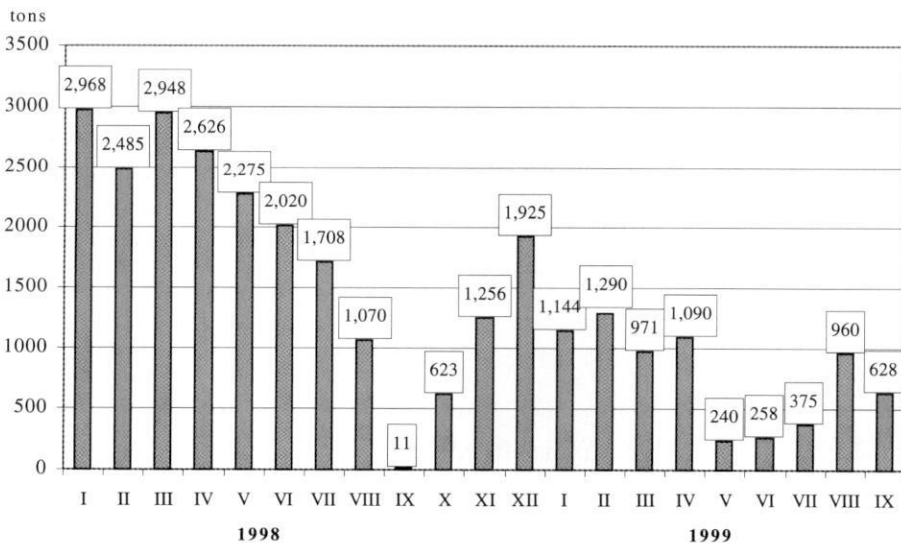


Figure 41. Monthly export volume of the Lithuanian dairy industry to Russia from January 1998 to September 1999 (Statistics Lithuania 1999i, p. 10).

#### **4.3.1.6. Future Perspectives**

The future of Lithuania's dominant food processing sub-sector will be determined by the developments on the export markets. Several dairy companies will fall, unless eastern export opportunities improve remarkably in the short run. The loss-making, financially weak companies will inevitably go bankrupt or taken over by strong competitors.

Foreign strategic investors are still biding their time. They apparently do not have an intention to enter the Lithuanian dairy industry until market structure is sorted out and the industry divest itself of the redundant obsolete capacity. Other reasons for hesitant strategic investments are the Lithuanian agricultural policy, the strong protection of raw material producers and the rapidly changing intervention.

In terms of FDI, two scenarios can be delineated for the Lithuanian dairy industry. The arrival of strategic investors is realistic to assume already in the short- or medium-term. All Northern countries have powerful dairy companies, which would be capable of acquiring Lithuanian companies. Scandinavian dairy concerns might take the first steps. Once the first strategic investors appeared, others from Western Europe may soon follow them as it happened in the case of Estonian dairy industry. Besides external factors such as improving export opportunities and growing domestic markets, investors would definitely need notable incentives including free trade of the processing companies' shares held by agricultural producers.

The other scenario depicts the opposite perspective: Russian market would not revive and strategic investors would not enter the Lithuanian dairy industry due to its limited size. Following an extreme logic, developing the position of the Lithuanian dairy products on the western markets would be the last thing on the EU investors' agenda. Thus, the dairy industry would not receive substantial foreign direct investments, and it would continue to be influenced by financial investors and domestic owners.

Market developments and governmental policy will have an impact on which scenario will come about. The arrival of strategic investors, however, seems to be the much likelier perspective.

#### **4.3.2. Meat**

The Lithuanian meat industry has faced dramatic changes in the 1990s. Restructuring and privatisation, and sluggish markets contributed to a sharp decline in meat production by 1999.



### 4.3.2.1: Vertical Relations and Performance in the Meat Supply Chain

The meat industry suffered from a deep crisis that struck all the vertical segments of the meat supply chain. Input prices rose rapidly after regaining independence. Meat producers got into a cost-price squeeze and livestock production became unprofitable (Table 37). Livestock farms responded with a sharp decrease of production. The structure of meat producers followed the common patterns of farm structure changes. Therefore, small farms accounted for an increased share in the declining meat production volumes by 1998. However, agricultural enterprises continued to provide the majority of their output for processing, whereas small-scale livestock farms sold their production also directly to consumers.

The Lithuanian government made efforts to improve the profitability of meat producers paying subsidies and setting a minimum procurement price for meat. Purchase contracts are regulated to cover a one-year period, although this is rarely done in practice. Processors are responsible for transportation costs of raw material. The strong level of regulations and intervention in the vertical relations of meat producing chain deteriorated the profitability of the processing companies. The total pre-tax profit of the industry declined from LTL 31.8 million in 1994 to LTL 10.2 million of loss in 1996.

Yet, the most significant reason responsible for the worsening performance of meat processors is undoubtedly sales difficulties. Domestic meat consumption decreased by 40 percent from 89 kilogram/capita in 1990 to 53 kilogram/

Table 37. Economic characteristics of livestock sold for processing, 1991-1998.

	1991	1992	1993	1994	1995	1996	1997	1998
<i>Cattle</i>								
Average sales price	6498	35681	1291	1768	2476	2966	2749	2775
Average sales cost	4294	18259	802	2002	2782	3411	3677	3737
Profit earnings	2204	17422	489	-234	-306	-445	-928	-962
Profit to sales (in %)	33.9	48.8	37.9	-13.2	-12.4	-15.0	-33.8	-34.7
<i>Pigs</i>								
Average sales price	6382	51834	2568	3792	4173	5154	5453	4536
Average sales cost	4765	36628	1741	3591	4267	5223	5287	4741
Profit earnings	1617	15206	827	201	-94	-69	166	-205
Profit to sales (in %)	25.3	29.3	32.2	5.3	-2.3	-1.3	3.0	-4.5

Sources: Statistics Lithuania 1997b, p. 362-363; 1998c, p. 395.

Note: Currency basis for calculations: 1991 – in rouble, 1992 – in talonas, from 1993 to 1998 – in LTL.

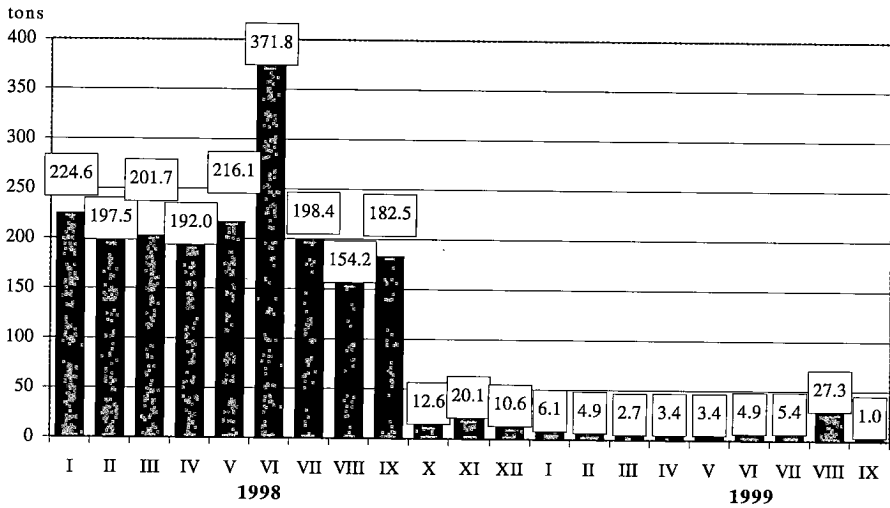


Figure 42. Monthly export volumes of the Lithuanian meat industry to Russia from January 1998 to September 1999 (Statistics Lithuania 1999i, p. 10).

capita in 1998. Export sales to Russia diminished from 150 thousand tons in 1990 to 27 thousand tons in 1997 and further to 7 thousand tons in 1998. Lithuanian meat processors were unable to compete with the subsidised meat products that were dumped on the Russian market. The Russian economic crisis in August 1998 broke down the faint meat exports and drove the shipments to Russia into a negligible level in 1999 (Figure 42).

#### 4.3.2.2. Privatisation and Ownership

Privatisation of the 9 large state-owned meat processing firms proceeded slowly. Only 8 percent of the industry capital was privatised in the first phase, before 1994. Then, in the second phase of privatisation, special incentives were granted to agricultural producers, which accelerated the process. In April 1997, 80.6 percent of the meat processing companies' capital was shifted into private hands. Raw meat producers acquired 32 percent ownership in the industry (Girgždienė and Kuodys 1998a, p. 8). Employees attained roughly 30 percent of the company capital, while the rest of the privatised share was in the ownership of private persons in 1998.

The large meat processing companies struggle with serious internal problems. Outdated technology is a heavy burden, hardly any improvements have been made in the processing lines in the 1990s. The present owners can not afford financing new investments, which impedes the development of proces-

sors. Meat producing farms themselves are financially weak, whereas employees of the processing companies rather fight for wage increases as opposed to long-term ownership interests. The share of labour within the cost structure increased from 3.5 percent in 1994 to 12 percent in 1997. The state still owned notable stakes in some companies in 1998 (Table 38).

Very little foreign direct investments have flowed to the industry. Foreign investors could ease the capital shortage in the meat industry, but present market situation sets a big challenge. The large meat processing companies would need substantial reorganisation and capital injection to improve production efficiency, and compete successfully on the domestic market. Therefore, foreign firms cautiously consider entering the Lithuanian meat industry.

#### 4.3.2.3. Market Structure

Out of the 9 large companies one had gone bankrupt and 8 were operating as of 1998. Their combined share in the industry was only 57 percent, while  $CR_4$  stood at 46.7 percent. Shortage of raw material, regulated procurement prices and weak market positions decreased the utilisation rate of capacities to 20 percent by 1996. The appearance of numerous small-scale enterprises strengthened competition and degraded the market power of the large meat processors. Over 200 small slaughterhouses have been established in Lithuania by the end of 1999. Many of them got involved also in meat processing; approximately 130 small enterprises had sausage production. As concentration ratios indicated, small-scale slaughterhouses and meat processors managed to capture a notable segment of the Lithuanian meat market.

Table 38. Corporate data of the largest Lithuanian meat processors, 1998.

Company	Turnover (million LTL)	Share of export sales in turnover (%)	Employees	Labour productivity (LTL/capita)	Privatisation status
Klaipėdos maistas	164.2	13.6	997	164,698	100 % private
Mėsa Utena	94.7	5.5	941	100,620	100 % private
Vilniaus Mėsos	38.6	6.5	570	67,786	100 % private
Alytaus Mėsa	29.3	5.8	447	65,617	100 % private
Tauragės maistas	23.7	9.3	396	60,061	84 % private
Panevėžio maistas	20.4	-	578	35,249	61.2 % private
Mėpra Marijampolė	13.9	-	196	71,173	state-owned

Sources: Top 100 Lithuanian companies; industry sources

*Table 39. Production of grain processing industries (in thousand tons), 1990-1997*

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Mixed-animal feeds	2,302	1,738	828	562	484	506	441	413	345	240
Flour (wheat and rye)	466.9	406.3	396	291.6	253.5	237.6	239.0	225.0	237.7	192.0
Cereal products	60.0	40.7	34.9	16.6	15.1	18.3	17.4	10.3	14.2	13.9

Sources: Statistics Lithuania 1997b, p. 274; 1998c, p. 275; 2000a, p. 79-80.

### **4.3.3. Milling and Feed**

#### **4.3.3.1. Production**

The milling and feed industries are hard to separate in Lithuania, since many companies have combined grain processing activities. They procure, store and trade grain as well as manufacture flour and compound feed products. Several companies, however, specialise in either one of the two main grain processing activities.

Feed industry was designed to serve the large demand of Lithuanian livestock production in the soviet era. Feed production capacity amounted to 2.5 million tons. Milling capacities were also developed to supply the eastern member republics of the Soviet Union. Production capacity of wheat and rye flour totalled 500 thousand tons while the capacity of grain for human consumption exceeded 60 thousand tons.

Production of milling and feed industries contracted rapidly in the 1990s. Feed production was hit hard, it fell by 90 percent. Feed production decline followed the sharp fall in livestock and milk production. Flour production stabilised at around 50 percent of the 1990 level in the period of 1994-1998, but dropped under 200 thousand tons in 1999 (Table 39). At present, less than 18 percent of the feed production capacity is utilised. The utilisation of milling capacity is at 40 percent, while the utilisation rate for cereal production capacity went under 20 percent by 1998.

#### **4.3.3.2. Financial performance**

Grain processing used to be exceptionally profitable in Lithuania, profit to sales revenues reached 5 to 20 percent even between 1991 and 1994. Profitability has deteriorated rapidly since then. The acute problem of redundant capacities created strong competition among the companies. Grain is presently processed and sold even at loss in order to sustain market shares.

In 1998, eleven of the 20 largest grain processing companies accumulated losses of LTL 20 million while their sales amounted to 200 million LTL. Even the profitable companies achieved only LTL 8 million profits with sales of over LTL 420 million. Weak financial performance can be explained by three main reasons:

1. The government established minimum procurement prices parallel with the ones in dairy and meat industries. The regulated raw material prices guaranteed sales certainty to grain producers; but had harmful effects on the financial position of processing companies.
2. Modernisation of production lines would have been necessary at several feed manufacturers. However, working capital was unavailable due to the severe under-utilisation of capacities. Increasing fixed costs flattened the profit of several companies. The lack of modernisation, in turn, preserved inefficiency and multiplied the negative performance.
3. Circles of indebtedness constitute a common problem in several areas in Lithuania. The grain processing companies are indebted to banks with LTL 130 to 140 million. Bank loans were used to pay for raw material in the previous years. At the same time, receivables total LTL 150 million. Domestic livestock producers and retailers owe LTL 115 million that should be collected from the Kaliningrad region and Belorussia. At least LTL 20 to 30 million will have to be written off entirely. Bad receivables and the interest rate costs on bank loans impose an enormous burden on the processing companies. Out of the 16 feed manufacturing companies, 6 have virtually stopped production already (Lithuanian Grain Association).

The financially strong feed manufacturers responded to the problem of indebtedness with reinforcing their vertical relations. They purchased livestock and poultry producing facilities to ensure controllable market for their feed products.

The milling companies operate with a relatively up-to-date technology. Mills tend to be smaller than the major feed manufacturers. Market structure became scattered as several small mills have been established in the recent years. Despite the higher capacity utilisation rate compared to that of the feed industry, milling does not provide sufficient profitability, either. Many small mills cope with the same difficulties as large companies. Domestic demand has not been able to absorb the oversupply of milling industry. In 1998, 32 small milling companies produced 25 thousand tons of wheat and rye flour that made up 12 percent of Lithuanian production. A rapid and intensive concentration is anticipated in the milling industry. It will supposedly result in three or four dominant firms in Lithuania within a few years.

### **4.3.3.3. Ownership and Foreign Investments**

In the privatisation process, agricultural producers acquired about 50 percent of capital of the grain processing companies. Employees initially attained about 20 percent, while private persons purchased 10 to 15 percent. The state retained 2 to 15 percent of shares varying by individual companies.

Employees and private persons rapidly increased their shares on the expense of agricultural producers. On the one hand, premiums and dividends were paid by additional shares, which raised the ownership shares of employees to over 30 percent by 1998. On the other hand, agricultural enterprises have sold their shares to private investors.

Hardly any foreign strategic investors have shown interest in the Lithuanian feed and milling industries. Masterfoods' recently established pet food manufacturing plant is one exception. The other notable foreign investment is not a strategic one; Danish development fund Liprama purchased the minority shares of two mills (Vievio malūnas and Šiaulių malūnas), and one grain company (Malsena) from Lifosa in 1999. Foreign participation remained minimal and it is not expected to grow significantly given the present financial and market prospects in the feed and milling industries.

The feed industry may well draw foreign investments, provided the financial environment improves. The milling industry presumably attracts little strategic investment, although foreign participation may increase indirectly later, provided a consolidating bakery industry would attract FDI in the future.

### **4.3.4. Sugar**

#### **4.3.4.1. Ownership Structure and FDI**

The Lithuanian sugar industry consists of four factories. Sugar is considered a strategic product in many countries, also in Lithuania. Consequently, the idea of open privatisation and the involvement of foreign investors were entirely excluded in the beginning. The initial privatisation plan proposed a merger of the four plants into one single company. Privatisation was delayed and started only in 1995. Eventually, all the sugar manufacturing companies were privatised separately applying the standard privatisation law of Lithuania. Agricultural producers were offered to buy 50 percent of the shares in the sugar processing companies for 2.5 percent of the nominal value. Employees, domestic private persons and legal entities purchased the rest of the shares. In April 1998, domestic private owners dominated the ownership structure of the sugar industry (Figure 43). State ownership was only 11.5 percent. The two most modern companies were fully privatised, whereas the state held 20 to 25 percent in the weaker ones, whose shares were difficult to sell. Privatisation in the sugar

industry was completed by the summer of 1998, when the remaining state shares were sold on a public auction. At this stage, the Lithuanian government decided to accept the participation of foreign investors. The new owner's concept had to comply with the following economic requirements:

- ◆ guarantee to process domestic sugar beet,
- ◆ restructure the enterprises and modernise their equipment and technology,
- ◆ make suggestion to cover the refineries' debt to sugar beet producers and other creditors (Girgždienė and Kuodys 1998b, p. 20).

Danish concern Danisco fulfilled all the requirements and acquired the state shares. The company immediately purchased additional shares also from other shareholders in order to gain controlling power in the entire industry. As of early 2000, Danisco held the majority in the two modern sugar plants in Kėdainiai and Panevėžys, 74 percent and 67 percent, respectively. Primarily agricultural producers owned the rest of the shares and a minor 2 percent belonged to company employees. The shareholders of Kuršėnai plant agreed to liquidate the company. It has been temporarily attached to Panevėžys, but production was scheduled to terminate in 2001. The sugar plant in Marijampolė has accumulated LTL 34 million debts over the recent years. Bankruptcy was filed in June 1999. The government expressed an intention to rehabilitate the company on the pressure of sugar beet growers. This obviously induced the protest of the foreign investor, who pursues rationalisation in the industry and hardly tolerates any domestic competition in return to the large extent of investment commitments.

In the end of 1999, the total sugar quota of Lithuania was 112 thousand tons, which was divided among the four companies. The quota of Kuršėnai was added to that of Panevėžys. Therefore, Danisco attained a quota package of 92 thousand tons, while Marijampolė plant held title to 20 thousand tons.

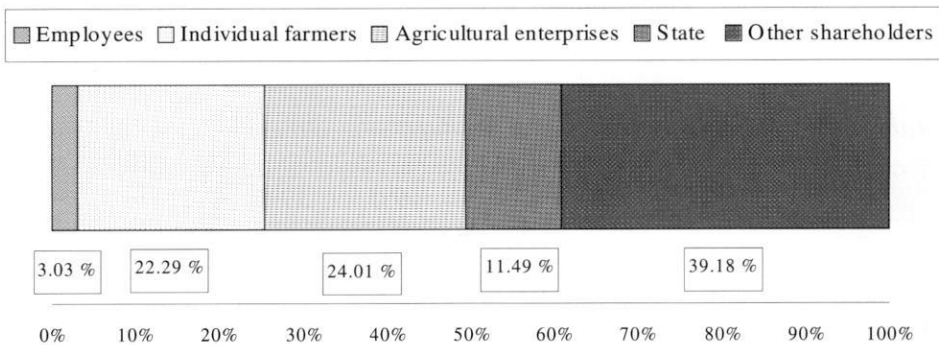
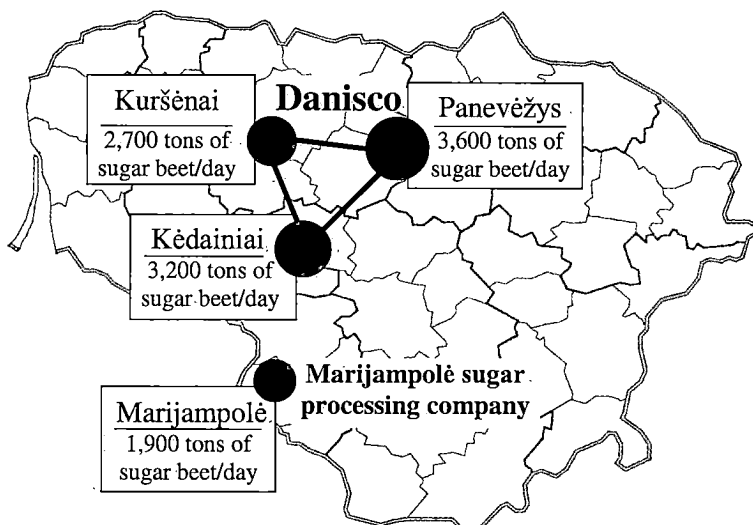


Figure 43. Ownership structure in the Lithuanian sugar industry, 1997 (Girgždienė and Kuodys 1998b, p. 19).



Note: Data and the sizes of balls indicate processing capacities.

Figure 44. Structure of the Lithuanian sugar industry, status at the end of 1999.

#### 4.3.4.2. Sugar Production and Market in Lithuania

The issue of Marijampolė plant is rather complicated and delicate for the political decision-makers. Sugar beet production has provided good earnings to producers in Lithuania (Table 40). The region has good conditions for sugar beet growing. Therefore, it is obvious that agricultural producers lobby for maintaining production in their area. The municipality argues for employment and local taxes in the badly hit region.

On the other hand, the average size of the Lithuanian sugar processing plants is very small. The annual production of a standard-sized European factory is 90 to 100 thousand tons. In comparison, total sugar production of Lithuania

Table 40. Profitability of sugar beet production in Lithuania, 1995-1998.

	1995	1996	1997	1998
Average sales price (LTL/ton)	147	160	143	140
Average sales cost (LTL/ton)	100	126	123	116
Profit or loss (LTL/ton)	47	34	20	24
Profit to sales ratio (%)	32.0	21.3	14.0	17.1

Sources: Statistics Lithuania 1998c, p. 362-363; 1999j, p. 395-396.



*Table 41. Sugar production, sales and stocks of the Lithuanian sugar factories, 1995-1999 (in thousand tons).*

	1995	1996	1997	1998	1999
Stocks of sugar (January 1)	43.7	47.8	83.3	100.7	123.7
Production from sugar beet	75.9	89.1	118.4	123.1	121.2
Production from sugar cane	30.6	50.0	-	-	-
Domestic sales of sugar factories	101.4	91.7	91.2	104.7	n.a.
Stocks before new campaign (October 1)	3.8	12.7	14.1	30.2	58.5

Sources: Association "Litsugar"; Statistics Lithuania 2000a, p. 80.

remained under 120 thousand tons in the recent years. Consolidation, therefore, is a reasonable effort in order to utilise the economies of scales. In principal, one company would be able to meet the Lithuanian demand. That, however, would imply absolute dominant power in the Lithuanian sugar market.

The sugar industry has struggled with severe problems in the recent years. Unsold stocks have increased fifteen-fold from 1995 to 1999 (Table 41). Approximately LTL 85 million of operating capital was tied up in stocks at the processing companies in October 1999. Out of the 125 thousand tons of sugar consumed annually in Lithuania, companies contributed only 95 thousand tons in 1999. Legal import made up 6 to 7 thousand tons, 7 thousand tons were stolen from the companies and 15 thousand tons were estimated to have been smuggled to the country. The black market price of sugar was 10 to 15 percent cheaper than retail prices (Deksnyš 1999). The large sugar surplus cannot be sold domestically, and it cannot be exported either. Producer prices in Lithuania were much above the world market price in 1999.

#### **4.3.4.3. Raw Material Supply**

Relations with raw material producers have always been considered important in the sugar industry. The entire raw material supply is ensured with advance production contracts. The structure of the sugar beet producers has changed significantly in the last decade. In 1990, a few hundred large-scale farms produced 100 percent of sugar beet. The number of producers grew rapidly to over 5,500 in 1997. Contracts with individual farmers totalled 5,179 (94 percent of all contracts), they provided 56 percent of sugar beet supply. In the same year, 342 large-scale farms (6 percent of the contracts) delivered 44 percent of raw material.

The expanding number of producers imposes additional administrative burden on the processing companies, but more importantly: individual farmers need considerably more financial and technical assistance.

Danisco continues to provide the necessary support to raw material suppliers. Preferential credits are granted to producers to buy agricultural inputs, such as quality seed or chemicals. Repayment is postponed until harvest. The processor might even help in arranging sawing and harvesting equipment for producers, and also pays transportation costs of the sugar beet.

It is evident that sugar industry needs further investments to increase efficiency. Consolidation is the only reasonable solution in economic terms, even though it will definitely toughen social tensions. The Lithuanian sugar industry provides a textbook example to illustrate the encounter of a market seeking foreign investor and the heavily policy-affected local markets and domestic lobbying forces.

### **4.3.5. Beer**

Brewing has long tradition in Lithuania, the history of beer manufacturing spans centuries and dates back to the 1700s. Beer companies were nationalised in the Soviet Union in the late 1940s. Lithuanian beer market witnessed substantial changes again after regaining independence. At that time, the industry contained less than 10 beer manufacturers.

#### **4.3.5.1. Production and consumption**

The production output of beer industry reflected the general crisis of Lithuanian economy in the period of 1990 to 1994. Consumption dropped due to the falling real income levels. The excise tax of beer was tripled in 1994 imposing an additional adverse impact on production in 1995. The recovery since 1996 was primarily attributable to the growing purchase power.

Production exceeded the 1990 level in 1998 and is anticipated to keep on growing (Figure 45). The Lithuanian beer market is forecast to expand by 5 to 8 percent annually in the next five years until consumption level approaches that of the Central European and Scandinavian countries.

Consumption followed international patterns by gradually shifting from distilled spirits to lighter alcohol products such as beer and wine. The proportional burden of excise taxes has diverged in the case of strong alcohol and beer and reinforced the changing consumption patterns over the past years. The excise tax on beer has remained stable since 1995, whereas taxes on strong alcohol were raised every year. This fact evidently stimulated beer consumption.

Beer is primarily produced for the domestic market, export sales varied from 0.5 to 3 percent within the industry's total sales between 1996 and 1998. Import is also minimal due to the 30 percent import duties on beer products. Beer trade is not significant even among the Baltic States, since the same investors are present in the beer market of each country.

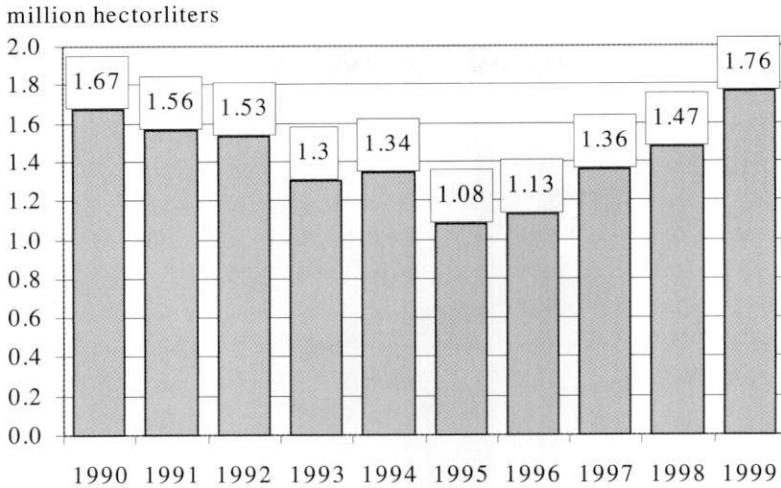


Figure 45. Beer production in Lithuania, 1990-1998 (Lithuanian Berewery Association).

#### 4.3.5.2. FDI and Market Structure

Employees and managers participated most actively in the privatisation process that started as early as in 1991. Beer companies were popular and common targets for private investments, company shares were usually purchased for compensation vouchers. Industry structure changed gradually, as dozens of small enterprises were established in the first years of economic reforms. These micro-breweries are usually private entrepreneurs operating with domestic capital. They typically supply a small segment of local markets or produce special beer.

Foreign investors appeared in the industry already in 1994, when Baltic Beverages Holding (BBH) purchased Kalnapilis, the third largest beer producer that time. Due to massive investments, modernisation, continuous product development and an aggressive marketing campaign, the company took over the market leading position by 1998 (Figure 46). The Czech Plzensky Prazdroj (Pilsner Urquell) entered the industry as the second foreign investor in the beginning of 1997 by acquiring 51 percent of shares in Ragutis. BBH strengthened its market presence by setting up a joint venture with Utenos Gerimai the same year.

The ownership structure and market power relations in the beer industry were ultimately changed by the quick arrival of three strategic investors in 1999. Carlsberg bought 96 percent in the most successful domestically owned beer company, Svyturis in May. The Danish investor later resold 38 percent of the shares to EBRD and Danish Investment Fund, but retained the controlling

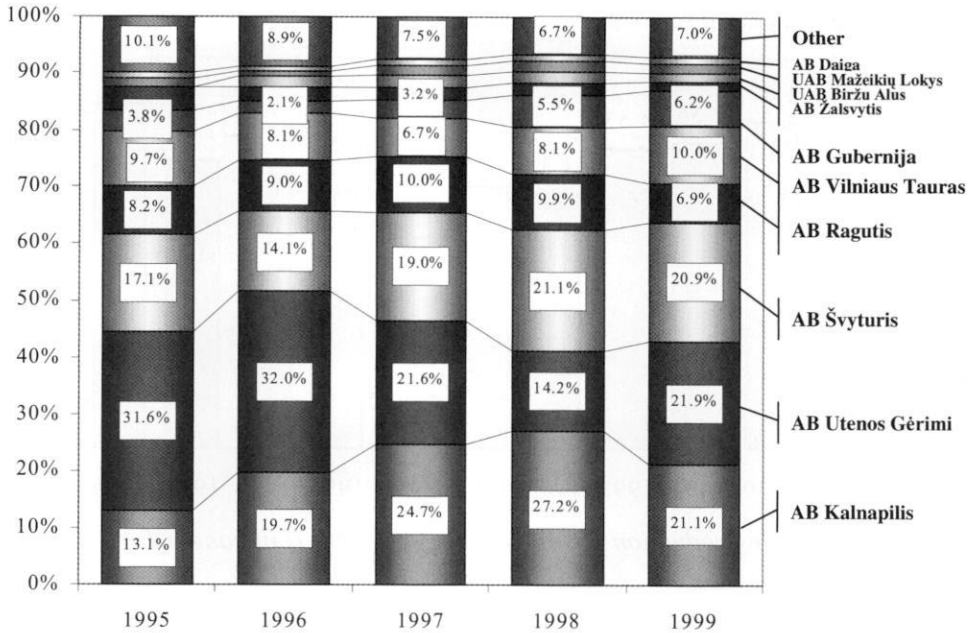


Figure 46. Market shares of the ten major breweries in Lithuania, 1995-1999. Shares are based on production volumes (Lithuanian Brewery Association).

package. The involvement of financial investors is to support the ambitious investment plans of Carlsberg (Lithuanian Development Agency 1999c, p. 1). In September, Finnish beer and soft drink company Olvi bought 49.98 percent of Ragutis' shares from the Czech owners. Soon after the transaction, in October the Danish brewery group Bryggerien purchased Vilniaus Taurus from its previous owners, a US-based offshore company. Foreign ownership became irrevocably dominant in the Lithuanian beer industry, since they acquired the five largest manufacturers. Their combined market share totalled over 80 percent in 1999.

Gubernija, once the largest of the medium scale breweries has grown persistently in the recent years and joined the group of large producers by 1999. The majority stake, 82 percent of the firm is owned by two offshore companies. The rest of the middle sized breweries got eventually detached from the market leaders (Figure 46). They continue to be owned by managers, employees and other domestic private persons.

#### 4.3.5.3. Financial performance

The beer industry has received over LTL 200 million, most of which was delivered by foreign investors. Competition became extraordinarily fierce, hence, the

*Table 42. Financial indicators of the Lithuanian beer industry, 1997-1999 I.*

	1997	1998	1999 I.
Turnover (million LTL)	303.9	337.5	184.6
Profit (million LTL)	73.1	56.8	30.7
Profit to sales ratio (in percent)	24.1	16.8	16.7

Source: Lithuanian Brewery Association

market shares of the large companies tend to be rather volatile. Enormous efforts are required to maintain market positions. Industrial profitability was as high as 24 percent in 1997. Large breweries achieved 15 to 35 percent while small- and medium-size enterprises 5 to 17 percent. The large manufacturers entered into a price battle in the beginning of 1999. Breweries have shifted production to cheap beer, which deteriorated their financial results. Profitability of the large breweries weakened already in 1998 and became extremely discrepant in the first half of 1999 ranging between 5 and 40 percent.

Microbreweries are the biggest losers of the intensifying competition. Their total market share was 12 percent in the middle of the 1990s. Their weight has constantly lessened and is predicted to go down to 5 percent in 2001. Microbreweries may be squeezed out of the market eventually, as the large companies improve the logistic services and distribution network and cover the local market segments throughout the entire country.

#### **4.3.6. Confectionery**

The Lithuanian confectionery industry included only a few production facilities even in the soviet period. The industry consisted of seven enterprises in 1999.

All major companies were privatised in 1993. Kraft Jacobs Suchard purchased the best company, Kaunas confectionery plant, directly from the Lithuanian government. Management and private persons bought Vilniaus Pergalė and Naujoji Ruta. Ruta A. Gricevicius confectionery plant was returned to the heirs of the company's founder and continued to operate as a family-owned enterprise.

After the privatisation, these four companies have been the chief participants of the confectionery industry. Kraft Jacobs Suchard invested over USD 15 million into modernisation, introduced new brands and developed export sales. The company also imports coffee, confectionery products and snack foods from Western Europe as part of its comprehensive regional strategy. In 1996, Kraft Jacobs Suchard Lietuva accounted for over 50 percent of the Lithuanian confectionery production, Vilniaus Pergalė and Naujoji Rūta had each 15 to 20 percent

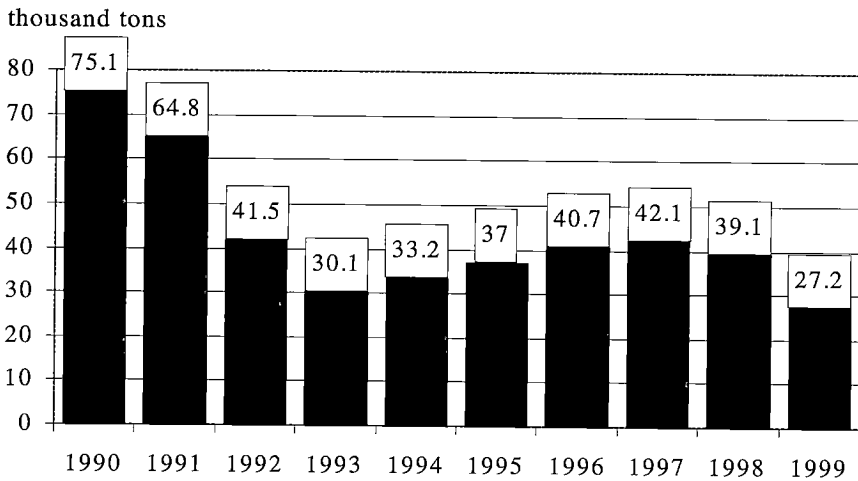


Figure 47. Production of confectionery products in Lithuania, 1990-1999 (Statistics Lithuania 1997b, p. 274; 1998c, p. 275; 2000a, p. 79-80).

share. The Lithuanian confectionery manufacturers managed to re-establish the decayed eastern markets by 1997. Export sales were revitalised primarily by the activities of Kraft Jacobs Suchard Lietuva. Production revived and exceeded 40 thousand tons by 1997 (Figure 47).

The Russian economic crisis hit the industry severely. Production output dwindled in 1999 by 30 percent from 1998 level mostly due to export sales difficulties. Even the impressive and dynamic growth of Kraft Jacobs Suchard Lietuva came to a stop. Export sales to Russia and Belorussia that used to make up half of the company's export earnings were on a complete halt in the beginning of 1999. The crisis compelled Naujoji Ruta, which struggled with declining sales already in 1997, to lay off 20 percent of its workforce. On the domestic market, confectionery companies are forced to increase prices due to more expensive raw material such as Lithuanian sugar. Therefore, they anticipate a further drop also in domestic consumption.

The short case of Lithuanian confectionery industry demonstrates the popularity of the sub-sector for foreign investors. In many countries, the confectionery industry consists of a few manufacturers with high market shares and good profit prospects. This applied also to the Lithuanian confectionery production. Adverse external factors affect both foreign investors and domestically owned companies, however financial strength and the market positions attained by foreign investors usually grant them the best chance for a later upsurge.

## 5. Finnish Investors in the Food Processing of the Baltic Countries

### 5.1. Objectives and Scope of the Survey

International capital flow starts with the investment decisions of firms in the resident countries, and includes the phase of accomplishment, when investments arrive in the host economies. A foreign direct investment project is a complex international business procedure, which involves firm(s) in the resident country/countries and firm(s) in the host country/countries.

As mentioned earlier in the introductory chapter, this study aims to investigate the entire route of food industrial FDI. The previous chapters have so far enlightened only one end of the above procedure. They focused on the economic environment and the firms of the food processing industries in the host countries. In order to get a comprehensive understanding on the whole procedure, also the active “investing end” has to be mapped. This chapter, therefore, endeavours to address the issues of FDI motivations and obstacles from the angle of investors.

A survey was developed and conducted among a group of food processing investors. The scope of the survey was restricted to the Baltic investments of Finnish food processing companies. *Research objectives can be summarised in two major points.*

1. *The survey aimed to identify the primary FDI determinants, which motivated or hindered the direct investments of Finnish food processors in the Baltic countries in the 1990s.*
2. *The second objective was to examine the experience, strategy and future expectations of investors.*

A question may arise what substantiates to narrow down the scope of surveyed companies to those of Finnish origin. It is their weight in food industrial FDI in the host economies that makes relevant to scan Finnish investments. Scandinavian capital clearly dominates Baltic food industrial investments, in which Finnish companies have a crucial contribution. In 1998, Finland was the leading source of food industrial FDI in Estonia and Latvia, and third place was taken in the rank of Lithuanian food industrial investments (see Table 3 on page 31). Hence, Finnish investments reliably represent the attitude of food industrial FDI to the region.

The survey covered 12 investors who accounted for 21 in a total of 23 food industrial Finnish investment projects in the Baltic countries. Executive managers of the companies were visited and interviewed in person between January and March 2000. Most interviews were carried out in Finland; while a few additional interviews with expatriate managers at the Baltic subsidiaries supplemented the survey set.

## 5.2. International Context for Finnish Food Processors

Finnish food processing faced two major challenges in the second half of the 1990s. (1) Accession to the European Union in 1995 was considered to put competitiveness of Finnish food manufacturing to a serious test on a large homogenous food market. (2) The Russian crises in August 1998 presented the second challenge as it dramatically hit the Finnish food exports. The challenge of a unified internal European food market was satisfactorily managed by a four-year adjustment period designed for Finnish food processing. Loyalty of Finnish consumers to domestically produced foodstuffs also alleviated the pressure of “internal-international” competition. On the contrary, the huge decline of Russian exports was much harder to overcome. In the year prior to the crisis, over FIM 2 billion or 34 percent of Finnish food export was directed into Russia (FFDIF 1998). Export sales dropped under FIM 1 billion in 1999.

Market difficulties implied similar damage to the Finnish food sector as it did to the eastern-export oriented Baltic food processing industries. Most products were re-channelled to domestic markets generating an oversupply, which, in turn, put downward pressure on domestic food prices. Despite the similar character of impacts, food sectors of Finland and of the Baltic countries managed the consequences of Russian crisis differently. In the Baltic countries, the crisis further deepened the transitional recession and contributed to bankruptcy waves and destruction of entire food industries. The Finnish food sector evaded serious losses, although it suffered from deteriorating profitability in 1999. The different depth of harmful impacts observed in Finnish and in Baltic food processing is attributable to two main factors:

- (1) Baltic food processing struggled with a transitional crisis and was engaged in fundamental restructuring. Hence, food economies were more vulnerable to external effects than the developed and stable Finnish food processing.
- (2) Baltic food processing was financially more dependent on eastern sales than the Finnish food industries.

The international context in the 1990s offered new perspectives for the internationalisation of Finnish food processors. Economic reforms of post-socialist countries opened up new markets in the Baltic Sea region. Several Finnish food processors realised the historic moment and took advantage of their comparable financial strength and geographical proximity. They settled down in the turbulent food economies to ensure market positions well in advance before the growth of food demand and consolidation of purchase power.

Until 1990, international activities of Finnish food processors were mostly restricted to the world-wide operations of a few huge food concerns. The main target of foreign direct investments used to be Northern and Western Europe as well as other continents. Remote presence however usually required consider-



able financial resources, which was infeasible for small and medium scale companies. The fundamental political and economic reforms of the former socialist block provided new international prospects. The proximity of restructuring Baltic countries allowed virtually all Finnish food processors to enter the international arena at reasonable risks and reasonable costs. Baltic countries became the first terrain of foreign “adventure” for several Finnish food processors, who considered the saturated domestic market to limit their corporate growth, but did not dare to start with a large leap. Besides these dynamic small and medium companies, the large Finnish food processing concerns also set feet on the Baltic food markets.

### **5.3. Finnish Food Processors in the Baltic Countries**

In 1998, total outward FDI stock of Finland exceeded FIM 175.8 billion.<sup>31</sup> Food industrial outward FDI stock made up over 7 percent of total foreign direct investments and amounted to FIM 12 billion (Virtanen et al. 2000, p. 11). In the 1990s, a rapidly growing share of Finnish food industrial FDI flowed to the post-socialist countries of the Baltic Sea region, namely Estonia, Latvia, Lithuania, Russia and Poland. The Baltic countries are estimated to have absorbed 8 to 10 percent of the Finnish food industrial outward FDI stock by 1999.

Table 43 shows the number of subsidiaries that Finnish food processing companies have established in foreign countries. Out of 157 foreign subsidiaries, 69 were set up in the five transition countries of the Baltic Sea region. Half of the sales representative companies are registered in Russia. In terms of FDI, however, the number of joint ventures and processing companies measure the real attractiveness of a country. Despite their large size, both Poland and Russia attracted relatively few Finnish investors. While Finnish firms established 13 food processing companies in the two countries, the number of Finnish processing subsidiaries in the Baltic countries totalled 23. These investment projects were accomplished by 14 Finnish parent companies. The group includes large concerns as well as small and medium-size companies. They together accounted for 46.5 percent of the sales of total Finnish food processing sector in 1997.

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<sup>31</sup> Outward FDI stocks of Finland totalled USD 32.8 billion in 1998 (UNCTAD 1999, p. 495), 5.36 FIM/USD average annual rate was used for conversion (see Annex 2).

Table 43. Number of sales representative and production subsidiaries of Finnish food processing companies abroad, 1999<sup>32</sup>.

Country/Region	Number of subsidiaries		
	Sales Representative	Joint Ventures & Processing Facilities	Total
Estonia	10	10	20
Latvia	2	8	10
Lithuania	2	5	7
<i>Baltic Countries</i>	<i>14</i>	<i>23</i>	<i>37</i>
Number of Finnish food processors present in the Baltic countries	12	14	22 <sup>a</sup>
Poland	2	7	9
Russia	16	6	22
Baltic Sea 5	32	36	68
Total World	75	82	157

Source: Finnish Food and Drink Industries' Federation

Note: <sup>a</sup>Numbers do not add up, since some companies run both sales representatives and processing facilities.

#### 5.4. Overview of the Literature

Survey studies constitute a significant group in the literature of FDI into the Central and Eastern European countries. Since surveys collect primer information, they are particularly efficient tools in mapping FDI determinants. Therefore, the typical objectives of surveys are to identify the motivations and obstacles of FDI.

Table 44 presents a concise overview of selected survey studies relying on questionnaires/interviews with foreign investors in the CEE countries.<sup>33</sup> The

<sup>32</sup>Data are based on the registry of the Finnish Food and Drink Industries' Federation. The federation encompasses 305 food processors with 460 production facilities that cover 95 percent of the Finnish food manufacturing (FFDIF 1999, p. 10).

<sup>33</sup>Table 44 displays only a selection of the massive body of survey literature published on FDI to Central and Eastern Europe. Besides the ones listed in Table 44, plenty of other surveys investigated the issue of FDI determinants from the viewpoints of investors *in one particular resident (home) country*, for instance: de Mortanges & Caris 1994 – Dutch investors; Meyer 1996 – British and German companies; Mutinelli & Piscitello – Italian enterprises etc. Some other studies clearly focus on the *host environment of one particular country*. They surveyed investors through their local subsidiaries. Most of the studies using extensive sample sizes were geared towards discovering FDI determinants at a mix of foreign investors operating in the whole CEE region. (For an early literature overview see Lankes & Venables 1996, p. 332-333).

table lists the nationality of surveyed investors, sample size, and geographical coverage as far as the host countries are concerned. Furthermore, it gives a brief account of major findings. Most studies set the objective of scanning both FDI motivations and obstacles. Studies specialising in one *research subject* (page 7) occur rarely in the literature.

The study of Lankes and Venables (1996) stands out in the mass of publications. Due to its innovative classification, it is one of the most frequently cited survey studies in FDI literature. The authors distinguish two ultimate FDI determinants: market and cost factors. Investing companies were assorted and surveyed in three groups: (1) distributors, (2) local suppliers, and (3) export suppliers. They concluded that the investments of distributors and local suppliers were driven by market factors, while mainly the low level of production costs motivated the decisions of export suppliers.

Borsos-Torstila (1999) further refined the classification of FDI determinants, she differentiated three groups: (1) market factors, (2) production factors, and (3) institutional factors. All three groups included both motivating and impeding factors. Her research comprised the investments of Finnish multinational enterprises in eight Central and Eastern European countries. Investors ranked market factors the most significant determinants followed by institutional factors and on the third place by production factors.

The surveyed investments covered the entire spectrum of manufacturing including food and beverages production. Although the superiority of market factors over production factors were overwhelming, food processing respondents remarked that production cost advantages were also considered motivating and risk lowering factors in the initial phase of their investments (Borsos-Torstila 1999, p. 143-144.). For the Visegrad and Baltic countries no serious obstacles were identified among the market factors.

The study of Hazley and Hirvensalo (1998) is a unique survey in its efforts to specialise exclusively in FDI obstacles. Geographically the study covers the Baltic Rim including Poland, the Baltic countries and St. Petersburg area of Russia. Surveyed investors were located mainly in Northern Europe. Two main groups of obstacles were found hampering FDI in all five countries: one is unclear or rapidly changing legislation, the other is the shortage of qualified labour force with management, marketing, financial, and language skills. Although the Baltic countries differed slightly from each other in the elaborate results, financial constraints and payment delays were mentioned in the case of all three countries.

In a sample of 55 interviewed companies, 12 were involved in food processing. In Estonia land ownership and privatisation were in the centre of legislation problems while in Latvia implementation of legislation caused a problem. Food processing investors perceived collusion between local companies and local authorities as a barrier to FDI in all Baltic countries. Similarly, finding appropri-

Table 44. Selected survey studies analysing foreign direct investments into Central and Eastern Europe – Summary table.

Authors and year of publishing	Scope of investors/ Sample size	Geographical coverage (host economies)	FDI motivations	Major findings	FDI Obstacles/Comments
Klavens et al. (1994) <sup>a</sup>	mixed n=175	Hungary, Poland, Czech Republic, Slovakia	Inspection of environmental considerations.	Business risks. Legal and administrative uncertainties. Environmental responsibility.	
Szanyi (1994)	mixed n=14	Hungary	Primary motivation: market access.		
Konings & Janssens (1996)	Belgian n=281	CEE	1. New markets. 2. Market power. 3. Cheap labour.	1. Lack of clear legislation. 2. Political instability. 3. Uncertainty of currency value.	
Savary (1994)	French n=56	CEE <sup>b</sup>	1. Market prospects. 2. Market size. 3. Privatisation opportunities. 4. Skilled labour.	1. Finding local partner. 2. Managing the subsidiary. 3. Bureaucratic procedures.	
Lankes & Venables (1996)	mixed (Western European) n=117 (145) <sup>c</sup>	CEE <sup>d</sup>	<i>Distributors</i> : 1. Local market. 2. Corporate opportunities. <i>Local suppliers</i> : 1. Local market. 2. Regional market. <i>Export suppliers</i> : 1. Production costs. 2. Regional market.	Risks vary by countries, major factors: * Regulatory and legal environment. * Macroeconomic instability. * Expropriation risk.	
Élertó & Sass (1997)	mixed n=124	Hungary	1. Conquering local market. 2. Stable legal framework. 3. Political stability.	1. Inflation. 2. Taxation. 3. Bureaucracy.	
Witkowska & Wysokińska (1994)	mixed n=109	Poland	1. Labour costs. 2. Prospects for economic development. 3. Large market. 4. Market share. 5. Skilled labour.	1. Inflation. 2. Insufficient legal guarantees. 3. Limited purchase power. 4. Investment risks. 5. Trade unions.	
Hazley & Hirvensalo (1998)	Scandinavian n=41(55) <sup>e</sup>	Baltic countries, Poland, Russia		Legal framework. Financial affairs. Illegal activities. Duties and tariffs.	
Boros-Torstila (1999) <sup>f</sup>	Finnish n=16 (42) <sup>g</sup>	CEE <sup>h</sup>	Three groups of factors including both motivations and obstacles: market, production costs and institutional factors.		

Source: Jansik 2000b, p. 55-56.

Notes: <sup>a</sup>Published jointly by the OECD and the World Bank. <sup>b</sup>Motivations were surveyed in the Visegrad countries, particularly in Poland and Hungary. <sup>c,e,g</sup>Number of production subsidiaries is in parenthesis. <sup>d</sup>Aggregate share of the Czech Republic, Hungary, Poland and the Ukraine totals 77 percent in the sample. <sup>f</sup>Survey was conducted in 1995. <sup>h</sup>Includes Baltic countries, Russia and Visegrad countries (at the time of the survey: Hungary, Poland, Czech Republic and Slovakia).

ate functional managers and long training periods for locally recruited staff members were identified as a common problem.

The preceding literature of FDI surveys investigates a wide spectrum of resident countries as well as CEE host economies. The studies largely differ from each other in many aspects including geographical coverage. However, one characteristic is usually common in most research work. Even if sample is divided into sub-categories, they typically scan investments in a broad sector: manufacturing, services or the entire economy.

The current survey project has very specific aims compared to previous projects in the literature. Besides well-confined geographical coverage, this survey was designed to explore the viewpoint and experience of investors in one particular industry. The food industry-specific nature denotes the survey's novelty in the literature.

## 5.5. Questionnaire Structure

The six-page questionnaire form consisted of ten major sets of questions with several sub-points in each main issue. The form contained mostly open-ended questions (see a blank copy in Annex 4 on pages 173 to 178). Accurate figures were requested concerning corporate data and improvement accomplished at the subsidiaries (Points 2, 4.1, 4.2, 6, and 7.2 in the questionnaire form). Likert-scaling<sup>34</sup> was applied to measure FDI determinants and other host economy characteristics as well as internal transfers of goods and material (Points 3.3-3.7, 4.4, and 8 in the questionnaire form). Questions were assessed on a scale from one to five, which facilitated quantification of viewpoints, easy data processing and comparison of averages. Two questions were formulated to query order of importance (Points 3.2 and 7.3).

The questionnaire form was designed to pursue the two main objectives of the survey (page 147). Questions follow the mainstream of previous FDI survey studies, although substantially new issues were developed and complemented to the questionnaire due to the food industrial specificity of the sample.

The first two points cover general corporate information. Point 3 is the most extensive set of questions; it is entirely devoted to measure FDI determinants. It includes a policy component, and a section of motivations and obstacles. The motivations of Finnish food industrial investors were further investigated by applying the concept of Borsos-Torstila (1999)<sup>35</sup>, who divided the incentives into three groups: market factors, cost factors and institutional factors.

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<sup>34</sup> For more information on Likert scaling, see: Borsos-Torstila 1999, p. 20.

<sup>35</sup> Certain groups of questions were taken over with the concept; they include Points 3.4-3.6, 4.4, and 8 (see the questionnaire form in Annex 4).

Since market is essential for food industrial investors throughout Central and Eastern Europe, a separate set of questions (Point 4) was developed to scrutinise competition and market positions of Finnish owned subsidiaries.

Point 5 was drawn up to address entirely food industry specific issues: vertical relations are of utmost importance in the food production chain. Food processors usually lay much attention on the relations with domestic raw material producers and trading companies. In a foreign environment they have to adapt to the special features of local vertical relations, thus the organisation of vertical links needs more efforts.

Points 6 and 7 inspect the type and amount of investments, and the nature of improvements that were accomplished at the Baltic subsidiaries. Point 8 queries the business and trade relations and the flows of knowledge and information between parent companies and their affiliates.

Points 9 and 10 were composed to search the expectations of Finnish food processors concerning EU enlargement and future plans regarding to their Baltic affiliates. Sub-point 10.1 in its careful wording pursues to receive information on the satisfaction of investors. The question was supposed to capture the complexity of host environment, the performance of subsidiaries and possible propensity to divestment. The last two questions inquired the future strategy of Finnish food industrial investors on the Baltic markets.

The results of the survey are reviewed in the next section. The thematic order of explication follows the structure of the questionnaire form (Annex 4).

## 5.6. Questionnaire Results

### 5.6.1. General Information

Geographical distribution of the 21 subsidiaries brings no surprise. Estonia attracted investments to 10 facilities or nearly 50 percent, which is definitely owing to the tight cultural and linguistic ties as well as the country's geographic location. Latvia and Lithuania obtained 7 and 5 investment projects, respectively.

Most of the investments were accomplished in the middle and in the end of the 1990s, the peak was recorded in 1994 (Table 45).

*Table 45. Number of production subsidiaries established by the surveyed investors.*

Year	1991	1992	1993	1994	1995	1996	1997	1998	1999
Number of subsidiaries	1	2	2	5	3	1	3	2	2

Source: survey questionnaires

### 5.6.2. Internationalisation

The group of surveyed companies consists of large food processing concerns with diversified activities and specialised small- and medium-size companies. As much as 34 to 80 percent of sales revenues of the internationally active large concerns is originated from outside Finland and the Baltic countries. As for small and medium scale companies, the Baltic countries typically served as the first foreign targets. Five out of the interviewed firms made their very first direct investment into the Baltic region. Four parent companies still have foreign affiliates exclusively in the Baltic countries.

### 5.6.3. Determinants of Investments

The large majority of surveyed investors alleged that limited growing opportunities on the Finnish market gave the primary impetus for their investment in the Baltic countries. About one-third of the respondents claimed that advantageous geographic location have motivated their decisions substantially. In one occasion investment was made “accidentally” as a result of an unexpectedly occurring business opportunity.

The point on FDI determinants began with a question *what market areas* – such as the target Baltic country, the entire Baltic region, CIS countries, CEE countries or Western countries – *motivated investment decisions* eventually. Market of the target country has proved to carry the highest motivation for investors. On a scale of one to five, 5 being the most motivating market behind Baltic investment decisions, primary target country scored 4.71 on average, while the entire Baltic region obtained 3.79 points. Future perspectives to expand to Russian market had reasonably (2.50 points) influenced the Baltic investment decisions of the Finnish food processors, although by Russia many respondents meant a wider region covering all non-Baltic FSU republics. Central and Eastern European markets played insignificant role in the decision-making process (1.58 points). This score suggests that Baltic countries would not be an intermediate basis for further southbound expansion, investors would rather consider a direct route instead.<sup>36</sup> The responses confirm that no Finnish company targets Western food markets through a Baltic production subsidiary.

Finnish food industrial investors considered Estonia’s *political environment* the most favourable primarily owing to the liberal economic and trade policy as well as the most advantageous corporate taxation in the Baltic region. The difference of average policy indicators is not significant among the three coun-

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<sup>36</sup> Southern countries in the Central and Eastern European region apparently have not been a priority area on the agenda of Finnish food industrial investors. Poland is the southernmost country in the region that has attracted notable Finnish food processing FDI.

Table 46. Policy indicators of the Baltic countries in the view of Finnish food industrial investors. Scale: 5=very favourable, 4=good, 3=satisfactory, 2=poor, 1=very poor.

	Estonia	Latvia	Lithuania
Privatisation policy	4.0	3.3	3.5
General economic policy	3.6	3.0	2.5
Taxation policy	4.2	3.3	3.0
Agricultural policy	2.5	2.1	1.7
Competition policy	3.9	3.1	2.5
Trade policy	3.5	3.3	3.3
Labour policy	3.4	3.2	3.7
Average policy indicator	3.58	3.05	2.87

Source: survey questionnaires

tries; the general investment environment is regarded as satisfactory (Table 46). However, investors are clearly unsatisfied with the protective agricultural policy approach of Latvia and Lithuania. Even Estonia's liberal agricultural policy direction received low scores. Privatisation policy is considered good or satisfactory throughout the region, so is trade and labour policy.

*Market factors* are designed to capture the standpoints of investors concerning the international importance and other characteristics of target markets. The order in terms of market size confirmed the role of magnitude: the market size of Lithuania was considered important, whereas that of Estonia remained moderate. Finnish investors anticipate the highest growth potential also in Lithuania. Access to the rest of the Baltic region was an important motivating factor, while no access was expected to the Russian food market from a Baltic base.<sup>37</sup> The proximity of local consumers was evidently most important in the farthest country, Lithuania. Both direct and indirect trade impediments contributed little to the investment decisions. Investors rather stressed the importance of potential EU membership and – especially in the case of Latvia – good company purchase opportunities. The surveyed Finnish companies univocally claim their Baltic investments to have been driven by a clear regional strategy.

Among the investigated *cost factors*, labour costs were recorded to have reasonably important motivating power, price being the most significant characteristic of labour before availability and competence. Other costs such as raw material, transportation and other production costs proved to bear less signifi-

<sup>37</sup> Expectations in this respect might have been notably higher before August 1998. Questionnaire results reflect the viewpoint of investors in early 2000.



*Table 47. Market-, cost-, and institutional motivating factors for Finnish food industrial investors in the Baltic countries. Scale: 5= important factor, 1=negligible factor.*

	Estonia	Latvia	Lithuania
<b>Market factors</b>			
Market size	3.0	3.4	4.0
Growth Potential of Markets	3.8	3.9	4.3
Access to the Rest of the Baltic countries	3.6	4.0	3.3
Access to the Russian Market	2.2	2.3	2.3
Proximity of Customers	3.9	3.7	4.3
Presence of Other Rivals in the Markets	2.2	2.0	2.0
Trade Impediments	2.0	2.6	2.0
Indirect Trade Impediments	2.3	2.9	2.3
Maintaining the Market Share of Parent Company	2.6	2.4	1.0
Export Promotion of Parent Company	3.6	3.6	2.8
As a Part of the Company's Regional Strategy	4.6	4.6	4.0
Potential EU Membership of the Countries	3.2	3.4	3.0
Good Privatisation/Corporate Purchase Prospects	3.3	3.9	3.0
Small Markets of Finland	3.7	4.4	3.5
<b>Cost Factors</b>			
Available Labour Force	3.2	3.3	3.0
Skilled Labour Force	2.9	2.7	3.0
Low Labour Costs	4.0	4.1	3.3
Low Level of Other Production Costs	3.1	2.7	2.0
Low Transportation Costs	2.9	3.0	2.8
Access to Raw Materials	3.4	2.4	3.5
Inexpensive Raw Materials	3.2	2.4	2.5
Tax and Other Incentives Offered to Foreigners	2.8	2.4	1.8
Low Taxation Level	3.1	2.6	2.0
Generally Low Level of Expenditures	3.1	3.0	2.3
Stability and Convertibility of Local Currencies	3.1	3.0	3.3
Good Profit Prospects	3.4	4.0	4.3
High Technological Level of the Target Country	1.7	1.4	1.5
High Risks	3.0	3.4	3.3
<b>Institutional Factors/Investment Environment</b>			
Political Stability	3.4	3.0	2.8
Economic Stability	3.4	2.7	3.0
Favourable Legislation for FDI	3.8	3.4	4.0
Restrictions Concerning Foreign Ownership Shares	2.4	2.4	2.8
Restrictions Concerning Land Ownership	2.4	2.0	2.5
Positive Attitude towards FDI	3.7	3.7	4.3
Relatively Well-Developed Infrastructure	3.3	2.9	3.3
Domestic Markets Protected by Import Duties	1.8	2.7	2.3

Source: survey questionnaires

cance. Taxation was reported to drive investments to Estonia as opposed to the other two countries. The stability of local currencies, and risk status of the three countries are considered equal or similar characteristic features in the region. While profit expectations are high in all three countries, investors typically expect higher returns to their investments in Lithuania and Latvia as opposed to Estonia.

*Institutional factors* incorporate the characteristics of host environment. Political and economic stability together with infrastructure is regarded satisfactory in the entire region. General attitude and legislation favour FDI in all three countries; respondents judged Lithuania to be the most FDI-friendly Baltic country. Investors did not perceive significant adverse effects of restrictions concerning foreign ownership or land ownership in any Baltic countries. Import duties have virtually negligible impact on investments into Estonia, while they have limited influence on FDI to Latvia and Lithuania.

*Obstacles* that hindered Finnish food industrial investments in the Baltic region vary notably by the host countries (Table 48). Bureaucracy and vague legislation were clearly reproached in the case of Latvia and Lithuania as opposed to the favourable scores of Estonia. Communication is evidently regarded the most fluent in Estonia. In Latvia and Lithuania, lack of language command was claimed to encumber business noticeably. On the one hand, cultural and linguistic similarities between Finland and Estonia grant a natural advantage in this matter. On the other hand, some sincere Finnish businessmen noted that communication in Latvia and Lithuania is rather hindered by the lack of a *common* foreign language; Russian is widely spoken in both countries. Corruption hampered the investments in Latvia and Estonia to some extent, but seen as almost negligible in Lithuania.

*Table 48. Obstacles to investments of Finnish food processors in the Baltic countries. Scale: 5=important obstacle, 1=negligible obstacle.*

	Estonia	Latvia	Lithuania
Bureaucracy and Red Tape	2.9	4.1	4.5
Vague Legislation	3.0	3.7	3.5
Lack of Foreign Language Command	2.2	3.3	4.3
Lack of Information on the Target Countries	1.9	2.9	2.0
Payment Patterns	2.1	2.7	2.3
Underdeveloped Banking System	2.3	2.7	2.5
Discriminative Rivalry, Lobbying Power of Domestic Competitors	3.0	3.4	3.8
Corruption	2.6	2.9	1.8
Illegal Activities, Grey Economy	3.1	3.4	3.0

Source: survey questionnaires

Payment patterns and the banking system were not adjudged as important obstacles in any of the three countries, while illegal activities and grey economy deter legal businesses in the entire region. Most investors reproved smuggling and illegal selling on marketplaces.

#### 5.6.4. Market Position of the Subsidiaries

Foreign investors in the food industries of the post-socialist countries share an important common characteristic throughout the entire CEE region: their primary objective is to seize influential market power. Finnish food industrial investors fully comply with the rule, the vast majority have acquired 20 to 50 percent share on the market of the respective product groups in the Baltic countries. Out of the 21 subsidiaries only four had a market share of under 20 percent, while three subsidiaries have dominant market power of over 50 percent. Finnish food industrial investors pursue ambitious market strategy. Most companies plan to increase their present market position by 10 to 30 percent over the next five years.

The 12 respondents were greatly optimistic in assessing the market perspectives concerning their product groups in the Baltic countries. Although two companies (of the same sub-sector) univocally predicted slightly declining consumption, the rest anticipate 3 to 10 percent annual consumption growth in their field in the next five years.

The majority of the Finnish owned subsidiaries operate in oligopolistic market structure surrounded by a few sizeable competitors. Rivalry is typically considered fierce. Half of the respondents reckoned that competition in the Baltic markets were similar or lighter than in Finland, the other half asserted that competition was harder in foreign fields than in the home market. Competi-

*Table 49. Standpoint of Finnish food industrial investors on the competitive environment in the Baltic countries. Scale: 5=fully agrees, 1=fully disagrees.*

	Estonia	Latvia	Lithuania
Competition is Fierce	4.0	3.9	4.5
Competition is Lighter than in Finland	3.3	3.7	2.5
Competition is More Intensive than in Finland	2.7	2.3	3.5
Competition is Going to Intensify	4.6	4.6	4.5
Foreign Firms Are the Most Important Competitors	3.6	3.6	4.0
Local Firms Are the Most Important Competitors	2.6	3.3	2.3
Companies Eluding Taxes and Import Duties Constitute a Serious Problem	3.0	3.4	2.8

Source: survey questionnaires

tion is widely believed to intensify in all the three countries in the future. In Estonia and Lithuania, foreign firms present significantly more serious competition than domestic firms, while in Latvia both groups of rivals are considered important. Competitors involved in illegal tax and trade activities constitute a relevant problem in all three countries, their adverse influence, however, varies largely among the individual processing industries.<sup>38</sup>

### 5.6.5. Vertical Coordination

Vertical coordination used to be well established among the components of the Baltic food production chain during the soviet regime: the activities of agricultural input manufacturers, agricultural producers and food processors were carefully harmonised by one decision body. Favourably set prices were removed in the beginning of the 1990s, and vertical relations were put strictly on commercial bases. The poor financial situation and atomisation of agricultural farm structure in Central and Eastern Europe often necessitated that foreign food processors assist raw material production by various means such as financial programs and technical assistance. In the questionnaire, a set of questions was devoted to explore the experience of Finnish food industrial investors with respect to vertical relations in the Baltic countries.

The interviews confirmed that Finnish investors are rarely engaged in advance payments or any other form of direct financial assistance to raw material producers. Finnish investors follow three main streams of strategy:

- (1) *Tight vertical relations.* Raw material is produced in a facility that is in the ownership of the processing company.
- (2) *Long term business relations.* Stable business relations are carefully built up over a long period of time, where a group of raw material producers gradually comply with the special quality-, transportation-, or quantity requirements of the processor. In return, they are granted special bonuses or premium price.
- (3) *Commercially based procurement.* Raw material is most often purchased from the free market either from domestic or foreign sources based on price, quality, or available quantity etc.

Some of the surveyed Finnish investors are involved in second stage processing; they obviously do not enter into business transactions with agricultural producers.

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<sup>38</sup> It was probably the industry-composition of Finnish food processing investors that lead to the surprisingly low scores of tax- and import duty evading competitors: in Table 49 it ranges from 2.8 in Lithuania to 3.4 in Latvia. Interviews with local food processing experts in the Baltic countries indicate that the problem in the whole food processing sector was more acute.

Since several parent companies run large businesses in the Baltic States, they have good and stable relations to wholesalers, in many cases they are in direct connections even with retail chains.

### 5.6.6. Type and Size of Investments, and Technological Development

The Finnish companies were asked about the amount that has been invested into their Baltic production subsidiaries since the beginning of transition period. Altogether the 12 surveyed companies invested FIM 899.7 million, which is estimated to make up 80 to 85 percent of all Finnish food industrial FDI to the Baltic region. Figure 48 shows the division of Finnish food industrial FDI among the three Baltic countries.

Privatisation process in the Central and Eastern Europe granted investors the most evident access possibility to the food processing sectors. The majority of Finnish investors took advantage of the privatisation prospects in the Baltic countries: 16 out of the 21 subsidiaries were established by purchasing existing privatised companies. Five investors opted for green-field investments; they set up completely new enterprises.

Both acquisitions of privatised companies and green-field investments carry advantages and disadvantages. An acquisition requires assiduous development of technology, management and business patterns of the purchased company. On the other hand, well-established market shares and operating business relations are considered precious local assets for a foreign investor. Greenfield investments and newly established enterprises lack these latter advantages, the

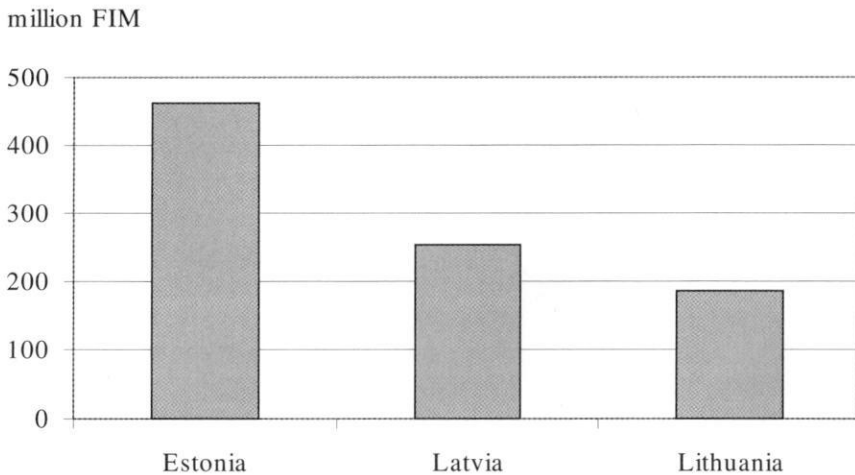


Figure 48. Distribution of Finnish food industrial FDI among Estonia, Latvia and Lithuania based on the survey of 12 investors (Survey questionnaires and estimated figures).

companies themselves have to develop market positions and build up business relations. The process demands time and its accomplishment requires immense financial resources. On the other hand, new enterprises efficiently organise management-, marketing-, and logistics methods as well as corporate trade relations and apply state-of-the-art equipment.

Questionnaire results indicate that Finnish investors used western technology and equipment in the Baltic subsidiaries. Finnish technology was installed at 11 facilities or 50 percent of all subsidiaries. Its share varied by individual cases but typically made up 10 to 50 percent of the development projects.

The respondents were asked to rank seven areas in need for improvement at the acquired Baltic companies. The scores of Table 50 are not directly comparable among the countries, they rather inform about the status and order of various business segments at Finnish-owned food industrial operations *within* a given country. It is the order and position of segments that can be compared among the three countries. In Table 50 they are shown in parenthesis.

The results indicate uniform tendencies in certain cases. Attitude of management was in acute need of improvement in all three Baltic countries. On the other hand, raw material procurement appeared to be organised quite satisfactorily in the whole region. Trade relations and logistics needed only some development.

In other areas of business activities, food processing companies of the three countries required significantly different efforts of development. Marketing was judged very poor in Latvia by nearly all the involved investors. In Lithuania, production technology was ranked most under-developed, while manufacturing technology in Latvia was considered a less problematic issue. Quite surprisingly, investors ranked even hygienic requirements mostly behind marketing and management attitude.

*Table 50. Areas in need for improvement at the Baltic food processing companies purchased by Finnish investors. Scale: 7=highest need for development, 1=lowest need for development.*

	Estonia	Latvia	Lithuania
Production technology	5.8 (2)	4.9 (5)	6.3 (1)
Marketing	5.7 (3)	6.9 (1)	5.5 (3)
Logistics	4.1 (6)	5.0 (3-4)	4.5 (5)
Hygienic requirements	4.3 (5)	5.0 (3-4)	4.8 (4)
Attitude of management	6.0 (1)	6.1 (2)	6.0 (2)
Trade relations	4.6 (4)	4.7 (6)	4.3 (6)
Raw material procurement	3.8 (7)	3.4 (7)	3.8 (7)

Source: survey questionnaires

### 5.6.7. Relations between Parent Companies and their Subsidiaries

The answers about corporate relations confirm the fact that commodity or product transfer between food processing investors and their affiliates remain limited. Instead, flow of information and expertise is of importance. Table 51 verifies the phenomenon; a negligible amount of products and commodities is transferred between Finnish parent companies and Baltic production subsidiaries. Estonian affiliates receive some material transfers, which is probably due to the lack of import duties. The amount however is very limited. On the contrary, investors asserted that the flow of technical expertise such as management know-how, marketing techniques and technology is extremely important. Information flow is the most important factor also in the other direction. Parent companies reckoned that they primarily receive information on local markets from their affiliates.

The above results fully reflect the attributes of FDI; investors establish production capacities abroad with the primary objective of being close to raw material, labour and consumers. In the case of sales promotion intentions of the homeland-company, they would rather establish sales representative subsidiaries.

*Table 51. Transfers between Finnish parent companies and their Baltic affiliates in food processing sector, assessment of 12 surveyed Finnish investors. Scale: 5=very much, 4=much, 3=some, 2=little, 1=not at all.*

	Estonia	Latvia	Lithuania
<b>Transfers from parent companies to affiliates</b>			
finished goods	2.1	1.6	1.5
intermediates	1.7	1.6	1.5
raw materials	2.4	2.3	1.5
technology	3.9	3.9	3.6
marketing services	3.4	3.7	3.8
management know-how	4.4	4.9	4.8
trade marks	2.7	2.3	2.5
<b>Transfers from affiliates to parent companies</b>			
finished goods	1.3	1.3	1.3
intermediates	1.2	1.3	1.0
raw materials	1.0	1.0	1.5
technology	1.0	1.0	1.0
information on local markets	4.1	3.7	2.5

Source: survey questionnaires

### **5.6.8. Impacts of Baltic Accession to the European Union**

Various arguments and viewpoints prevail concerning the accession schedule of CEE countries. Politicians in both Western and Eastern Europe tend to speak of early dates. However, even moderate economic experts anticipate the accession of CEE countries only within the next 5 to 7 years.

Baltic countries are among good potential candidates for EU membership. Finnish food processing investors were also inquired about the possible effects that EU accession might imply to their Baltic operations. Three-fourth of the respondents indicated positive expectations concerning EU accession. Most of them emphasised the harmonisation of legislation and removal of protective borders, mainly import duties. Operating internally on a vast market of uniform standards and regulations will ease coordination, daily conducts, and business transactions between parent companies and their Baltic affiliates. Therefore, investors with foreign subsidiaries in two or three Baltic countries would welcome a simultaneous accession of the three countries. Some of the investors were confident that Baltic price level will remain low long after the accession, which will provide the affiliates with permanent competitiveness even on the EU market.

A more cautious viewpoint anticipate difficulties for the Baltic affiliates due to the opening competition of Polish and Western European food processors. Others were concerned about the potential price or negative implications of EU accession. The strict EU requirements will oblige Finnish owners to further invest into hygienic and technological development. In this context, one respondent spelled out his long run concern: once the technological and hygienic standards of the Baltic food processors are improved to the level of EU companies, in a search for corporate growth and new markets they might become potential competitors of Western and Northern European companies.

The overall impact of EU accession of the Baltic countries is considered positive by Finnish food processors. Many investors are aware of the fact, that accession will imply both advantages and disadvantages. Most of them, however, believe that benefits will considerably surpass costs in the process.

### **5.6.9. Future Strategy**

Investors were asked whether they would invest into the same country and company again, if investment was due today. The answer was an absolute "yes" in the case of 15 out of the total 21 investment projects. In five other occasions the reply was yes, although with some additional remarks. Two companies were uncertain about the exclusivity of location; they would now consider also the neighbouring Baltic countries as potential sites for investment. Three companies would choose the same country but probably would apply slightly different



solutions such as purchasing a privatised company as opposed to green-field investment. Out of the 21 investment projects there was only one categorical “no” respond.

None of the 12 respondents is planning to concise business activities in the Baltic countries, although two investors admitted that their relative position has shrunk to some extent. All companies expressed an intention to increase their presence; nine of them would focus on the growth of existing subsidiaries, while three would consider additional company acquisitions. Most of the companies plan to run up production and six investors delineated widening product lines or even introducing new product groups to the market.

Finnish food industrial investors are confident and optimistic about the future of their Baltic affiliates. Their corporate strategy is ambitious but at the same time built upon realistic expectations about host environment.

## **5.7. Conclusions of the Survey**

Food industrial investors are motivated by market opportunities in the entire Central and Eastern Europe, and they establish manufacturing on the bases of local raw material sources. Survey results indicate that this rule prevails also in the Baltic countries.

Finnish food processing investments are primarily driven by the market of the target Baltic country as opposed to access to farther markets through the export sales of the subsidiary. Out of market factors, size and growth potential were viewed as most significant ones. Results also confirm that proximity of consumers and raw materials are fundamental motivating factors for food industrial investors. Cost advantages of production were not considered strong driving forces with the exception of inexpensive labour costs and good profit prospects.<sup>39</sup>

Obstacles such as vague legislation, bureaucracy and lack of language command were mostly indicated for Latvia and Lithuania, however, attitude of management and lack of marketing techniques were proved to encumber investments in all three countries.<sup>40</sup>

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<sup>39</sup>The above conclusions are in line with the results of the preceding FDI survey literature. Food processing investors establish themselves to exploit local market opportunities. In this regard, they share the characteristics of the local supplier category of Lankes and Venables (1996): investments are propelled by market factors as opposed to cost advantages. The relative significance of low labour costs in the case of Finnish food industrial investments, however, reinforces the respective conclusion of Borsos-Torstila (1999).

<sup>40</sup>These results echo the obstacles identified by Hazley and Hirvensalo (1998), who found legislation and human resources problems being the major FDI obstacles in the Baltic States.

The most fundamental finding of the survey also relates to the motivation of local markets. Market power was proved to strongly attract Finnish investors to the Baltic food sectors. Most of them pursue dominant, or at least leading positions in the market. Their endeavour fully complies with international experience elsewhere in Central and Eastern Europe. Therefore, this finding of the poll will serve as survey evidence to support the concept of FDI-concentration maps in the Baltic case in Chapter 6.

Vertical relations require much energy on behalf of food industrial investors. They are especially important for first stage processors. In some cases, Finnish companies had to make special arrangements in order to ensure stable raw material supply and quality. Others procure raw material on commercial basis.

Survey results verified the assumptions with respect to trade and transfers between parent companies and their affiliates. Internal trade tends to remain very limited in the case of food production subsidiaries. The survey confirmed that abundant information and knowledge flowed in both directions, while goods and material transfers were negligible.

Investors anticipate that accession to the EU will widen the possibilities of their Baltic subsidiaries, although they admit that production and hygienic standards will require additional investments. Many investors believe that Baltic subsidiaries will enjoy prolonged competitiveness on EU food markets due to the lasting difference in price levels. Positive expectations are reflected in the future strategies of investors. The overwhelming majority of surveyed companies are planning to increase production and market power. The attitude signifies confidence in the Baltic food sectors. Finnish food processors envision improving purchase power and rapidly growing markets for most product groups.

## 6. FDI-Concentration Maps in the Baltic Food Sectors<sup>41</sup>

### 6.1. Theoretical Setting

Food processing has been a major recipient of foreign direct investment in the liberalising CEE economies. However, food processing includes several individual industries, in which foreign capital has expressed different interest. The altering preference of investors across the food processing industries resulted in an uneven sub-sectoral distribution of food industrial FDI. The general regional trends of uneven distribution were delineated in point 1.2.2. on page 25. The concrete Baltic manifestation of the tendencies was revealed in Tables 8 and 32 and Figure 25.

A question rises: what factors have driven foreign investors to prefer certain food processing industries to others? Earlier research findings suggest that industry concentration and industry FDI penetration have strong relation in the CEE food processing (Jansik 2000b). *The main objective of the present chapter is to uncover the reasons that have lead to the uneven sub-sectoral distribution of foreign capital in the Baltic food processing.* The explication introduces the analytical framework of FDI-concentration maps and tests the relation between industry concentration and industry-based FDI penetration in the Estonian, Latvian and Lithuanian food processing. Besides, the role of non-quantifiable factors such as privatisation policy and implementation practices will also be evaluated.

#### 6.1.1. Overview of Theories and Empirical Evidence

The relation between industrial structure and foreign direct investments was recognised in the literature of FDI and industrial organisation a long time ago. Hymer (1960) set the foundations of an industrial organisation approach within the stream of FDI hypothesis based on market imperfections.<sup>42</sup> He argued that a multinational firm has to have certain advantages over the local competitors in order to settle down on the foreign market. Kindleberger (1969) refined the scope of advantages that multinational firms utilise in their foreign investments. Structural imperfections of the market can facilitate an efficient use of the foreign company's financial strength, market power, superior know-how, patented products, brand names, unique marketing techniques, distribution methods, or special access to markets.

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<sup>41</sup> Chapter 6 heavily builds on the analytical framework and conclusions developed in the author's Ph.D. Thesis: Jansik 2000b.

<sup>42</sup> Agarwal (1980) distinguished two pronounced streams of FDI related theories: hypotheses that assume perfect markets and hypotheses based on market imperfections. The industrial organisation approach produced several theories to explain FDI determinants, they evidently presumed market imperfections as the initial starting point.

Agarwal (1980) argues that these corporate advantages are indispensable but not necessarily sufficient determinants of foreign direct investments, since they do not explain why firms choose FDI to exploit their advantages as opposed to export sales or licensing. Recent FDI theories based on market imperfections attempted to discover the ultimate determinants of FDI. Two main paths of research were followed: one focused on the structural imperfections, the other direction explored the transaction-cost imperfections of the markets (Lizondo 1993, p. 90).

Knickerbocker (1973) established the hypothesis of oligopolistic reactions, which attempts to capture structural imperfections of markets and postulate an explanation for the forces that direct FDI. He hypothesised that FDI activity of multinational firms are responsive steps to the competitors' foreign investments. Knickerbocker analysed the international expansion of U.S. based multinational enterprises in the post-war period and found that investments into the same industries followed each other in a short period. In order to quantify the phenomenon he established "entry concentration indices" (ECIs) for three, five and seven years for 23 target countries. Significant correlation was found among the market concentration of the particular industries and the time distribution of foreign direct investments, which lead to a conclusion that oligopolists react to each other's international expansion by additional investments. He concluded that increased industrial concentration induces increased oligopolistic reactions in the area of FDI.

Although the hypothesis of oligopolistic reactions was the first FDI theory that directly attributed the international movement of capital to market structure, the relation between foreign investments and industrial concentration was recognised earlier. In an analysis of manufacturing industries in the United Kingdom, Dunning (1958) discovered that two-third of the foreign-owned subsidiaries operate in highly concentrated industries. Since then, a broad agreement has been reached on the fact that the relation prevails, but its causal direction has divided the opinion of economists.

Caves (1996) postulated the relation between FDI and market structure from entry barriers. He identified five types of barriers: (1) advertising outlays, (2) capital-cost barriers, (3) scale economies, (4) research and development, and (5) organisational complexity. Concentrated markets and the related high barriers of entry induce the very emergence of multinational enterprises. They have to bear significant advantages over the local competitors to overcome entry barriers. Consequently, "the height of entry barriers and the extent of foreign-investment activity should be highly correlated. And because entry barriers mostly determine an industry's level of seller concentration, we expect foreign investment and seller concentration to be closely associated" (Caves 1996, p. 83-85).

In a recent study, Ratnayake (1999) investigated the industry of New Zealand, and empirically tested the correlation between entry barriers and industrial

concentration. He found that foreign ownership in a particular industry – among other factors such as size of industry, import competition and economies of scales – is a determinant of industry concentration.

A rich body of empirical evidence supports the relation between FDI and industrial concentration. Fishwick (1981) detected high correlation between seller concentration and foreign investments in the United Kingdom. The tendency got verification in a number of studies for countries of various development levels such as Guatemala (Willmore 1976), Mexico (Blomström 1989) and Australia (Parry 1978).

Attention was also turned to the reasons that cause the relation between FDI and concentration. Rosenbluth (1970) reported an intensive presence of foreign subsidiaries in concentrated Canadian industries, which he attributed to the size of subsidiaries. Foreign-owned firms are usually large enough to be the dominant or leading companies of concentrated industries. Fishwick (1981) remarked that foreign participation is usually not recorded in non-concentrated industries, while FDI may or may not be high in concentrated ones.

There has been rare reference so far to the prevalence of the relation in the Central and Eastern European transition economies. Szanyi (1997) stressed the role of capital concentration in the acceleration of globalisation in the 1990s. The entry of globally growing multinational enterprises has redrawn the market structure and increased industry concentration in the European transition economies.

The substantial market- and ownership changes in Central and Eastern European food processing has also offered evidence to the pattern. Boeckenhoff and Moeller (1993) noticed that foreign direct investments tend to flow to the concentrated sub-sectors of Hungarian food processing. Vissi (1995) analysed the competitive environment in the Hungarian food processing industries and restated the phenomenon. Yet, the recognition remained an intuitive presumption without empirical support. The relation of FDI and industry concentration in the Hungarian food processing was empirically proved in a later analysis (Jansik 2000b).

### **6.1.2. FDI in the SCP-Paradigm**

The current study has fully relied on the SCP-paradigm of industrial organisation theory. Market structure and foreign direct investments were investigated in the industry case studies of the Baltic food processing. As foreign investors appear in an industry, they interact with local competitors and participants of the up- and downstream industries.

Figure 49 presents the position and role of FDI within the causal relations of SCP-paradigm. Arrows *[A]* and *[B]* signal the mainstream view of causation within the paradigm. FDI links up with the components through many causal

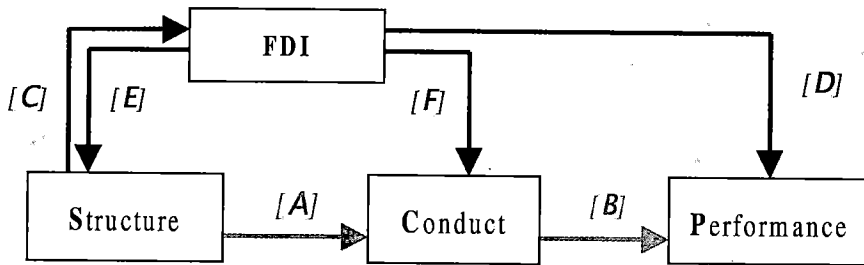


Figure 49. Position and role of FDI within the impact mechanism of the SCP-paradigm (Jansik 2000b, p. 278).

channels. Foreign investments are attracted to an industry by its characteristic features manifested in the structure component. This causal relation is signified with letter [C]. Once inside the industry borders, foreign investments themselves also shape the market structure, corporate behaviour and performance of the particular industry (letters [E], [F], and [D]).

A strong correlation between foreign direct investments and industry concentration is pronounced in the literature. It still leaves the question of primary causal direction open, whether already concentrated industries draw foreign investments or foreign owned subsidiaries drive the concentration of industries. Empirical evidence shows that causality runs in both directions in the food processing industries of Central and Eastern Europe (Jansik 2000b, p. 98-104). Foreign investors are attracted by attainable dominant market power, and then they actively influence the changes in market structure.

## 6.2. Introducing FDI-Concentration Maps

### 6.2.1. Definitions

The correlation between industry concentration and foreign direct investments explains the uneven distribution of FDI among the food processing industries of Central and Eastern European countries. *FDI-Concentration map is a graphic demonstration of the relation between foreign investments and market concentration for given industries at a given time.* In order to quantify the dimensions,  $CR_4$  concentration ratio and foreign ownership share of the aggregate registered company capital were calculated for each industry.

The computed figures were organised in ordered pairs, where the first number captures FDI, while the second signals market concentration. The pairs are then plotted graphically on the system of Cartesian coordinates. Since both computed

figures are divisional ratios, they are of positive values that fall between 0 and 1.<sup>43</sup> Hence, only an exact confined segment is used in the Northeast quadrant of the system of coordinates. Axis  $x$  denotes the share of foreign-owned capital in the total registered company capital of the industry, while axis  $y$  shows the share of the four largest companies in total industrial sales. The position of point  $O$  (50;50) on Figure 50 (page 175) signifies an industry, where foreign investors have acquired 50 percent of aggregate registered capital of the companies operating within the industry, and the four largest firms hold a combined share of 50 percent in the industry's sales.

A demonstrative application of FDI-concentration maps is plotting the data pairs of industries for one specific country. Usually figures should be computed for the same period of time. *National FDI-concentration maps* constructed by these conditions are snapshots documenting the status of the observed sector in one specific year.

### 6.2.2. Extension Directions of FDI-Concentration Maps

The analytical framework based on the relationship of FDI and concentration was developed to investigate the industries of one sector in one national economy. The first practical application was specified to the food processing sector and to the European transition economies. The field of application for FDI-concentration maps has been extended into two directions:<sup>44</sup>

1. The *dynamic approach* involves the construction of *industrial life-curves*. The approach traces down the route that food processing industries followed in the post-socialist transition until they reached their position in the year of observation.
2. The *comparative approach* extends the application of FDI-concentration maps into a geographical direction by constructing national maps and contrasting them to each others. FDI-concentration maps can be utilised for a comparative analysis of the food processing sectors in the Central and Eastern European region.

Several forces can be identified that influence the shape of industrial life-curves. These forces are responsible for the directions of an industry's changing position from year  $t$  to year  $t+1$ . Other forces bear importance for the comparative approach. They are in charge of the overall distribution of the

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<sup>43</sup> For demonstrative purposes both divisional ratios are expressed in percentage form, which expands the scales on the charts to an interval ranging 0 to 100.

<sup>44</sup> Profound definitions of the two extension directions, an elaborate discussion on the driving forces affecting the path of industrial life-curves, and examples of practical applications of FDI-concentration maps are provided in Jansik (2000b).

industries' locations. Furthermore, they elucidate the common patterns and divergences found in the corresponding maps of the compared countries.

Since the current chapter is a practical application of the comparative approach, only the determinants explaining the appearance of national FDI-concentration maps will be reviewed in more detail.

### 6.2.3. Determinants of Industry Location on the FDI-Concentration Maps

Several factors influence the positions of food processing industries in a given year. Based on the market boundaries of processing industries, driving forces can be categorised into two large groups:

- ◆ *External factors.* They can further be decomposed into global, regional and national forces. External factors equally affect each industry in the food processing sector.
- ◆ *Internal factors.* They are associated with the industry's inherent attributes, special features, product group, manufacturing technology, and other characteristics.

The following section screens the external and internal driving forces of national FDI-concentration maps. Although the discussion relates primarily to the food processing sector, most of the statements on the determinants of industry locations can easily be generalised to other manufacturing industries.

#### 6.2.3.1. Globalisation – the Ultimate External Factor

Globalisation has taken up the attention of economists for over two decades. The trend substantially modifies the world-wide economic environment. *Globalisation* can be concisely defined as the accelerating trade of consumer goods, services, technology, capital, and other production factors. It is the bundle of business transactions exceeding national boundaries, and the growing international activity of economic players.

The driving forces of globalisation can be derived from the most important objective of the firm renowned as a cornerstone in microeconomic theory: profit maximisation. In order to survive in the intensifying competition, firms have to strengthen their market power and be more efficient than their rivals are. Hence, globalisation is driven eventually by two factors, the growth pressure and efficiency pressure of companies:

1. Growth pressure bursts open the boundaries of saturating national markets;<sup>45</sup> companies respond to the challenge with step-

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<sup>45</sup> It particularly applies to the food articles, since pursuant to Engel's law, food expenditures fall coincidentally with growing incomes. Although in the developed countries the decline is somewhat compensated with the growing consumption of high quality, functional, or high value added food products, such a growth of consumption is not sufficient for the companies under the severe growth pressure.



ping out to the international arena and with targeting the emerging markets in the world.

2. Efficiency pressure is partly connected with the growth pressure, since efforts in order to improve economies of scale simultaneously raise efficiency. One of the most obvious ways to improve efficiency is to reduce costs by pursuing a more favourable mix of globally available production factors than in the resident country. Cooperation, mergers and acquisitions among the companies also serve the purpose of efficiency improvements, so does the change in production with a recombination of raw material, labour, technology, know-how, or market information. Efficiency pressure of the firms is usually also resolved with internationalisation, or participation in the globalisation process.

### **6.2.3.2. External Factors Effective on the Regional and National Level**

The survey of external factors continues on a smaller geographical level. The factors in effect on the regional and national level can be grouped into general and CEE-specific forces.

The most important factor on the national economic level, which influences the array of food processing industries on the FDI-concentration maps, is the economic policy of the respective country. Public policy can drive the appearance of an industry in virtually any zone on the map. The general aspects of the economic policy, particularly the attitude towards foreign direct investments, affect *horizontal* movements.

Competition policy and SME policies determine the *vertical* position of industries. A crucial aspect of competition policy is the intervening possibilities in the case of mergers and acquisitions that would result in essential changes of market structure. Besides political factors, the relation of market size and economies of scale determine vertical values of industry positions. In a smaller market, pursuing and achieving economies of scale would result in a much more concentrated market structure than in a bigger market. Entry barriers can also modify the position of food processing industries in vertical direction.

### **6.2.3.3. External Factors Specific to Central and Eastern Europe**

The main patterns of fundamental economic and social reforms in the Central and Eastern European countries is the same throughout the region. However, the initial stage of development, the pace of the reforms, and the applied set of policy measures vary from country to country. Since FDI-concentration maps are utilised to compare the food processing sectors of selected CEE countries, the CEE specific external driving forces require a separate review.

Privatisation policy and its concrete implementation are the most essential external factors of the CEE-specific driving forces on the national FDI-concentration maps. (1) Pace and (2) type of privatisation determine the position of food processing industries in *horizontal* direction:

- (1) A stretchy privatisation may hold back the arrival of foreign investments. Multinational companies tend to exploit opportunities offered by an early start and rapid implementation of privatisation.
- (2) Type of privatisation is another essential modifying factor of foreign ownership share in the food processing industries. Voucher based privatisation, or privatisation favouring the interests of local players of the food processing chain will result in a very low presence of foreign investments. Consequently, the industries would be located around point *S* as opposed to point *O* (Figure 50). Commercial privatisation on the other hand would drive industry location into point *Q* instead of point *O* or point *S*.

Beyond privatisation, the stability of host country affects foreign investments in the region. A predictable operational environment stimulates foreign participation, while quickly changing economic environment or political instability discourages it. Consumer demand is a factor also affecting horizontally; stronger purchase power or higher national income attracts foreign capital, whereas permanently low level of disposable incomes evidently impedes foreign investments.

Out of the CEE-specific factors that determine the *vertical* dimension of industry locations, the most influential force is again privatisation. Some of the privatisation strategies in the region left food processing industries in their concentrated position around point *P*, where they used to be located in the era of command economy. Conversely, decentralised privatisation applied by many countries in several industries induced a location in the proximity of point *R* as opposed to point *O* (Figure 50). Legal and institutional reforms in the emerging market economies including laws on competition policy, bankruptcy and liquidation policy as well as SME policy were applied in the CEE countries differently.

The external factors alone may be unable to give a sufficient explanation for the arrangement of food processing industries on the FDI-concentration maps.<sup>46</sup> Therefore, a review of internal factors derived from the attributes of individual industries is also necessary.

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<sup>46</sup>The privatisation or competition policy might treat certain industries or groups of industries differently even within the same country. In this context, part of the external factors may also be in charge of the distribution of food processing industries on the FDI-concentration map of the same country.

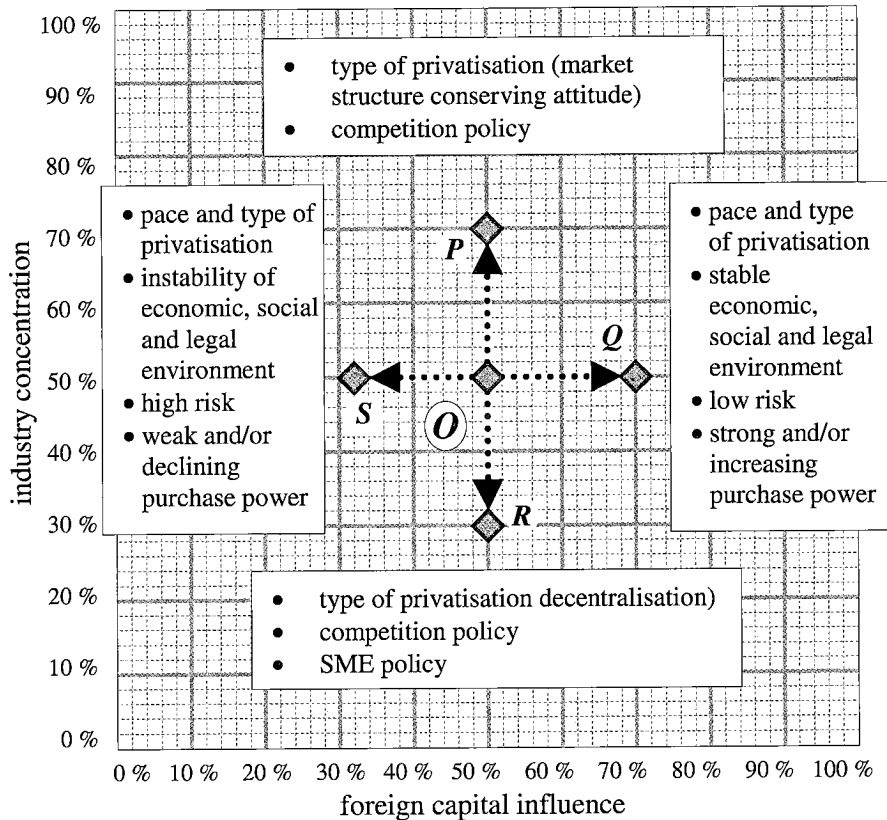


Figure 50. External factors on the regional and national levels – CEE-specific driving forces determining the array of industrial positions on the national FDI-concentration maps.

#### 6.2.3.4. Internal Factors Effective on the FDI-concentration Maps

Internal factors that determine the location of industries stem from the immanent attributes of the processing industries. The concrete implementation of privatisation, which itself is an external factor, was influenced by special characteristics of the particular industry such as market structure, profitability perspectives. Numerous sub-sectors exhibited the phenomena of “insider-privatisation” and “crowding out FDI” due to their attractive inherent features. This fact evidently played a crucial role in determining the *horizontal* location of the industries. The cost/benefit ratio of market entry was favourable for foreign companies in such industries, where they were given chances to attain existing capacities or market shares by company acquisitions. The interest of foreign

investors remained limited if acquisitions were not possible or impeded with various measures.

Entry barriers and the technically related capital intensity factor may modify the location of industries in *vertical* direction. Entry barriers and high capital-, advertising-, and R&D-intensity of an industry imply the success of large companies and rising concentration.

### **6.3. FDI-Concentration Maps in the Food Processing of the Baltic Countries**

The current sub-chapter is primarily a concrete application of the *comparative approach* of national FDI-concentration maps, although the dynamic background will also be enlightened through presenting the typical routes of industrial life-curves. Practical application is divided into three major sections.

1. First, the status of Baltic food processing industries is analysed and major tendencies are identified. This section briefly reaches out to the dynamic approach by addressing the historic background of industry positions.
2. The national FDI-concentration maps of Estonia, Latvia and Lithuania will be contrasted to each other to detect the common patterns as well as interesting deviating instances.
3. Third, Baltic FDI-concentration maps will be analysed in the light of the corresponding map of Hungary to determine the Baltic peculiarities in comparison to the rest of the CEE region.

#### **6.3.1. Common Tendencies in the Baltic Food Processing**

Industry case studies of the country profiles and the results of survey conducted among Finnish investors suggest a strong relation between food industrial FDI and market concentration. The overall Baltic FDI-concentration map in Figure 51 confirms the intuition gained in the previous chapters. Availability of statistical figures allowed the composition of data pairs for 39 individual food industries. The array of industry locations indicates a robust trend: highly concentrated industries tend to involve higher foreign capital participation and *vice versa* low market concentration implies low foreign interest.

Although most food industries abide to the major tendency, one group of sub-sectors clearly deviates from the main trend line. The diverging industries make up a tight group in the upper-left corner in Figure 51. The deviating industry positions disclose interesting characteristics of the Baltic food industrial privatisation.

It is essential to stress that FDI-concentration map by itself does not prove the direction of causality between the two industry attributes. The mere array of

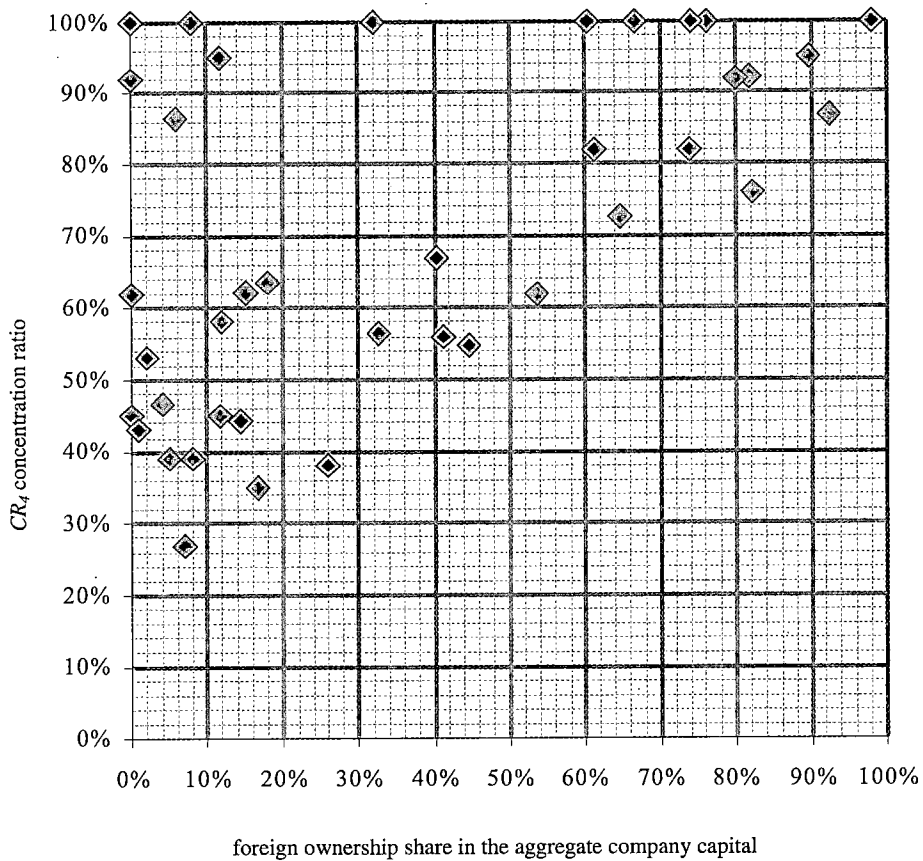


Figure 51. FDI-concentration map of the Baltic food processing industries, 1998.

industry locations would not resolve the issue whether foreign investors were lured to concentrated industries or the other way around, high share of FDI has elevated industrial concentration. This may be a relevant question for developed countries. However, in the case of transition economies, historic facts make the causal relation evident: they confirm the principal determining force of market structure. In the previous socialist regimes, food processing had absolutely no foreign capital in any form. Out of the two observed industry attributes, only market concentration figures had real values in the beginning of transition period; hence they had an initial impact on foreign capital penetration. On the other hand, interdependence between concentration and FDI emerges, once foreign direct investment starts to flow into food processing.

Although graphic demonstration is an impressive tool that helps visualise tendencies, a formal verification is also needed to support the findings. In order to quantify the strength of correlation, linear correlation coefficients were com-

Table 52. Linear correlation coefficients of market concentration and foreign capital participation in the Baltic food processing industries, 1998.

	Estonia	Latvia	Lithuania	Total Baltic
<i>Total data set</i>				
Number of industries	11	15	13	39
Correlation coefficients	0.5125	0.5306	0.6378	0.5547
<i>Outliers removed</i>				
Number of industries	9	12	12	33
Correlation coefficients	0.8956	0.9199	0.8817	0.8693

puted as descriptive measures of the relation between industrial concentration and FDI influence.<sup>47</sup>

The coefficients were calculated both for national food processing sectors and for the whole Baltic region (Table 52). *The measures support that there is a medium to strong positive correlation between industry concentration and industrial foreign capital intensity in the Baltic food processing.* Out of the three countries, correlation is strongest in Lithuania where only one industry lies far from the major trend. The correlation between FDI and concentration was slightly weaker in the Latvian and Estonian food processing.

Correlation results turn much stronger with the exclusion of outliers.<sup>48</sup> Foreign capital ownership share and industry concentration figures are strongly correlated both on the Baltic- and on national levels. Although correlation results improve spectacularly with the refined data set, outliers carry precious additional information and extend our comprehension concerning the main tendency. Therefore, the peculiar background of the deviant industries in the Baltic food industrial FDI-concentration maps needs further consideration. The common reasons for their deviation will be unveiled in the comparative analysis of national FDI-concentration maps (see Point 6.3.3.4).

The calculations show positive correlation of medium to strong level – ranging from 0.5 to 0.92 – between industrial concentration and industrial FDI in the Baltic countries. Although *correlation coefficients* were used as descriptive measures, they effectively *demonstrate the market-seeking aspect of food industrial FDI in the Baltic countries.* Market power has proved to motivate

<sup>47</sup> SPSS 7.5 statistical software was used for the calculation of the correlation coefficients.

<sup>48</sup> Correlation coefficients are usually very sensitive to data points, which are located far from the true trend line. Pindyck and Rubinfeld (1991, p. 7) argue that results can be refined by recalculation of the least-square line with the outliers removed. A comparison of results based on the original and the reduced data sets will provide information on the impact of outliers.

foreign investments. In order to extend investigations on the investors' market-seeking attitude, the role of another market attribute was also tested: total industrial sales were included to represent the appeal of market size. The variables included in the calculations were the following:

- $FDI_i$  foreign ownership share in the aggregate capital of the  $i^{th}$  food industry,
- $CR_i$   $CR_4$  concentration ratio for the  $i^{th}$  food industry
- $MS_i$  market size, sales revenues of the  $i^{th}$  food industry.

*The main objective of the second set of calculations is to find out whether FDI is motivated also by market size besides market power. Calculations were again made for the entire scope of industries, then for a narrowed multitude with outlier industries removed. Table 53 presents the results in two matrices. Market size (MS) does not correlate with foreign ownership shares in industry capital (FDI) in either matrix. At the same time, the descriptive correlation measure between market concentration and foreign ownership share was medium to strong again in both tests. This finding leads to a conclusion that out of the two attributes of market, size and concentration, it is market concentration that has really counted to foreign investors so far.*

The results in Table 53 bring another interesting phenomenon to light: the direction of the relation in the case of market size is negative with FDI and industry concentration. The negative direction itself is not surprising, since it simply confirms the fact that small industries tend to be more concentrated, while large industries remain more fragmented in the Baltic food processing. Similarly, small industries are easier for FDI to conquer than large industries. However, the descriptive correlation measures of market size stay very low in all cases, therefore its relation towards FDI and industry concentration can be considered negligible.

*Table 53. Linear correlation matrices of industrial foreign ownership share, industry concentration and industry output in the Baltic food processing.*

a. Linear correlation matrix – initial				b. Linear correlation matrix - narrowed			
(n=39)	<i>FDI</i>	<i>CR</i>	<i>MS</i>	(n=33)	<i>FDI</i>	<i>CR</i>	<i>MS</i>
<i>FDI</i>	1	0.5547	-0.1898	<i>FDI</i>	1	0.8693	-0.2612
<i>CR</i>		1	-0.2946	<i>CR</i>		1	-0.2628
<i>MS</i>			1	<i>MS</i>			1

### 6.3.2. Dynamic Background of Industry Positions

The industry positions in Figure 51 represent a snapshot of 1998 situation. Each Baltic food processing industry moved along its individual route in the 1990s and finally reached its position by 1998. Food processing industries used to have no foreign ownership share in the beginning of the decade. They were either fully state-owned or in dominant state ownership. Therefore, all of them were located on the vertical axis. Furthermore, most of the industries were characterised by “dominant company” or “oligopolistic” market structure, which was to ensure efficient state control. Due to the concentrated nature and to the small size, most Baltic food processing industries were initially situated along the upper half of axis  $y$ .

Since the industry positions were scattered in a distinct zone in 1998 (Figure 51), it is interesting to investigate the way the positions evolved from the initial period in 1990 to 1998. This question is answered by *the dynamic approach of FDI-concentration maps: the industrial life-curves*.<sup>49</sup>

As economy was liberalised and food processing was privatised, sub-sectors followed two major routes on the Baltic FDI-concentration maps (Figure 52).

- A) Abiding to the regional trends, several industries were purchased by foreign investors. The transactions moved industry positions in area  $A$  directly to the upper right corner of the map. A typical route of an industry  $i$  is marked as  $a_i$  on the chart (Group [1]).<sup>50</sup> Foreign firms were prevented from purchasing the dominant companies in some industries in area  $A$ , their positions stayed in the upper left corner of the map (Group [4]).
- B) Other industries followed a “U”-shaped curve as illustrated by route  $b_j$ . They were first decentralised in the privatisation process and were subject to a slow FDI influx. Their concentration decreased in the first years of the decade, as large dominant companies were disintegrated into smaller constituents and privatised separately. Foreign capital started to leak in gradually to some industries: industry concentration and FDI influence have risen concurrently as foreign owned companies consolidated their positions (Group [2]). Other industries in area  $B$  have not attracted notable foreign capital and stayed in the bottom of the “U”-shaped zone (Group [3]).

<sup>49</sup> Exact industrial life curves are not presented for the Baltic food processing sub-sectors due to the incomplete time series. The main trends in Figure 52 were identified through a partial time-series data set of concentration and FDI of the major industries, evaluating the privatisation effects, and utilising the experience of other Central and Eastern European countries.

<sup>50</sup> Definitions of the four groups of industries are given on page 182. Graphical illustration of the groups can be found in Figures 53-55.



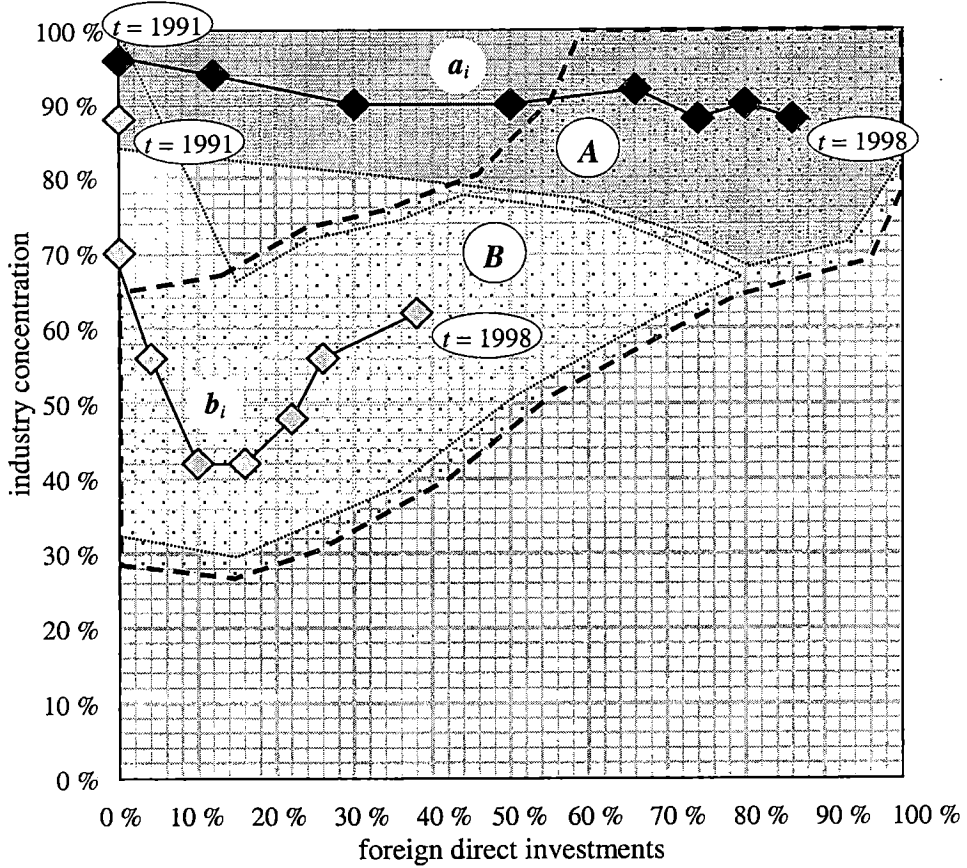


Figure 52. Typical industrial life-curves in the Baltic food processing on the schematic FDI-concentration map.

Beside the two typical industrial life curves, there are further less typical routes that industries followed in individual occasions. By the end of the decade, most industries were aligned along a diagonal zone in the FDI-concentration maps bordered by the jagged line on Figure 52 and illustrated by the concrete industry positions in the Baltic national maps on Figures 53-55.

### 6.3.3. Comparative Analysis of Baltic FDI-Concentration Maps

Empirical evidence has confirmed the major hypothesis of the study, that market concentration is responsible for the uneven sub-sectoral distribution of foreign capital in the Baltic food processing. Being aware of the general trend in

the Baltic region, now we can turn our attention to the national and industrial characteristics. Figures on pages 186 and 187 present the scatter plots for Estonia, Latvia, and Lithuania as well as Hungary for a broader comparative purpose.

Industry positions mark the same distinct trend on the national FDI-concentration maps. However, logical explanation should be found for outliers that do not obey the trend. As noted earlier, several other determinants can modify or even largely divert industry locations from the main trend. Out of the determinants of industry positions listed in point 6.2.3, CEE-specific external factors and internal factors have been especially responsible for the concrete array of individual food industries in the Baltic countries. Within that group of determinants, privatisation policy and implementation, as well as immanent characteristics of industries have been of utmost importance.

Four major groups of industries can be separated based on their tightly converging locations in the national FDI-concentration maps. Three of them are identified on the main trend line:

Group [1] industries with *high* market concentration and *high* foreign participation,

Group [2] industries with *medium* market concentration and *medium* foreign participation,

Group [3] industries with *low* market concentration and *low* foreign participation.

The fourth group encompasses a compressed set of industries that lies far from the main trend line:

Group [4] industries with *high* market concentration and *low* foreign participation.

The boundaries of the groups are not defined by exact ranges.<sup>51</sup> They can differ from country to country, but they are primarily based on the comparative locations of all other observed industries.

It is important to stress that the terms “*low*”, “*medium*” and “*high*” concentration do not refer to absolute levels of the  $CR_4$  figures. The notions rather mark the relative concentration levels in comparison the concentration of other groups within the same national FDI-concentration map.

The review of the groups will follow the order of FDI attractiveness. First, Group [3] is explained in which industries absorbed the least foreign capital. Then Groups [2] and [1] are reviewed in detail, where industries have shown increased FDI attractiveness. The main driving forces of FDI are enlightened in

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<sup>51</sup> Groups may seem somewhat arbitrary on the national FDI-concentration maps. In fact, they are based on a more sophisticated grouping technique than just intuition. For each country, a cluster analysis was run in order to determine the accurate composition and boundaries of industry-groups. The detailed procedure is presented in Jansik (2000b).

the case of foreign capital intensive industries. The outlier-industries of Group [4] – as a special group of common exceptions – are screened at the end.

#### **6.3.3.1. Group [3]: Low Market Concentration – Low Foreign Participation**

Many Baltic industries follow the Central and Eastern European common patterns of the industrial distribution of food processing FDI. Group [3] usually encompasses *first-stage processing industries*. All Baltic first stage industries such as *dairy, meat, grain and fish processing* were situated initially in Group [3], that has low concentration and low FDI. Several reasons determined their locations:

- (1) All three Baltic countries enacted special legislation for privatising dairy, meat and grain processing industries. Substantial preferences and privileges were granted to agricultural producers, which did not allow the ownership of foreign investors.
- (2) In some industries decentralised privatisation was adapted. The former state-owned huge concerns were disaggregated into their smaller constituents, and individual processing facilities were often privatised separately. Decentralised privatisation lowered the originally high industry concentration.
- (3) New enterprises sprang up like mushrooms particularly in the meat and grain processing industry further lowering the industry concentration.
- (4) First-stage industries are usually not preferred by foreign direct investments anywhere else in the Central and Eastern Europe, primarily because they are fragmented markets, with strong exposition to agricultural raw material. They imply higher risk of agricultural lobbying or political interference. Furthermore, their bulk products are low value added basic foodstuffs with relatively low level of differentiation.

#### **6.3.3.2. Group [2]: Medium Concentration – Medium Foreign Participation**

Some of the Baltic first-stage industries have accomplished an unusual breakout from the area of Group [3] towards Group [2] by 1998. These industries have been characterised by accelerating consolidation over the past years. Industry structure has become more concentrated by three major ways:

- (1) the largest companies strengthened their positions by corporate growth,
- (2) inefficient companies were eliminated through bankruptcies; redundant capacities decreased,
- (3) market leaders merged or acquired smaller competitors.

The national FDI-concentration maps of the Baltic food processing present several illustrative examples. The instances of Estonian and Latvian bakeries, Estonian meat, Latvian milling, and Lithuanian dairy industries are extraordinary instances in a Central and Eastern European comparison.

Bakery production usually have very scattered industry structure in Central and Eastern Europe. A vast multitude of small-scale bakeries operates on confined markets of individual towns and municipalities across the entire CEE region. Hundreds of new bakeries have been established also in the Baltic countries. Still, the baking industry remained to be dominated by large bakeries in the relatively small Estonian market, whereas a weighty merger case involving four of the six largest bakeries increased concentration sharply in the Latvian market. Although bakery is typically not an FDI-intensive food processing field, foreign capital was lured to the *Estonian and Latvian baking industries* by attainable market power. Foreign investors arrived in the middle of consolidation process, and further reinforced it with their presence. Consequently, Estonian and Latvian baking industries have moved to Group 2 on their national FDI-concentration maps by 1998. The Lithuanian baking industry remained rather scattered, even the market leader having a share of less than 10 percent. Lithuanian bakery – complying with the typical patterns of the CEE region – stayed in Group [3].

*Latvian milling* is truly a remarkable exception in the grain processing of Central and Eastern Europe. Nowhere else in the milling industry did foreign ownership get so high as it did in Latvia (Figure 54). Four factors explain the exceptional position of Latvian milling on the FDI-concentration map:

1. *High concentration.* Whereas  $CR_4$  industry concentration of milling usually stays around or below 40 percent in the CEE countries, the four largest mills have controlled the majority of milling industry in Latvia for years.  $CR_4$  reached 60 percent as early as in 1995, and increased to 64 percent by 1998. High concentration was definitely one of the most powerful attracting factor for foreign investors.
2. *A “drawing-effect” of bakery in the bread chain.* The main output of milling industry is a bulk product with relatively high demand from the next processing segment of the bread-chain, the bakery industry. Unlike in Estonia, Latvian bakery industry relies exclusively on domestic flour. The concentration of bread production and FDI involvement in the dominant bakery as early as in 1995 gave foreign milling companies a further impetus to invest into the Latvian milling industry. One mill was even acquired by the dominant bakery to strengthen inter-industrial vertical relations in the bread-chain. FDI in the Latvian bakery

therefore exerted a “drawing-effect” on FDI to the milling industry through vertical relations.

3. *Central location.* One of the considerations of strategic investors in the Latvian milling industry was the country’s central location among the Baltic States. This location offers logistic advantages, and several directions of access to export markets.
4. *Company capital structure.* An important factor responsible for high FDI in Latvian milling is the structure of registered company capital among the market leaders. Foreign companies invested into those mills, which have relatively high share in the company capital structure. Hence, their investments immediately raised the share of foreign ownership above 50 percent.

Parallel to Latvian milling, the *Estonian meat industry* represents an exceptional case among the meat industries in Central and Eastern Europe. Meat processing is typically less concentrated with little FDI. In Estonia, it consolidated remarkably fast through a bitter wave of bankruptcies; several formerly state-owned large processing companies failed in the competition on the reduced market. The foreign acquisition of the dominant meat processor moved the industry directly to the upper margin of Group [2] (Figure 53).

*Lithuanian dairy* was situated on the borderline of Group [3] and Group [2] in the year of observation, but it was detaching from Group [3] already in 1999. It is now dynamically on the move towards higher concentration and higher foreign participation (Figure 55). What makes the case of Lithuanian dairy unusual is the nature of foreign capital. The large majority of foreign investments arrived from financial institutions and funds, which is an indication of solid trust in the industry. Dairy processing has utmost significance in all three Baltic countries being a flagship industry in each Baltic food sector. By 1999, Lithuanian dairy attained a unique position in a regional context, since it became the most foreign capital owned dairy industry in a Baltic comparison. Foreign investments were centralised in a few leading companies, and foreign ownership share was not outstanding in the beginning. However, it grew rapidly with the aggressive company-acquisition strategy of the four market leaders. It is hard to identify what drove the investments initially to Lithuanian dairy processing, since financial investors do not always base their decisions on the same set of preferences as strategic investors. It was probably the eminent financial performance of the most successful Lithuanian dairy financial companies through the middle and second half of the 1990s that raised the attention of investors. A second reason might have been the ambitious management mentality witnessed at the leading dairy processors.

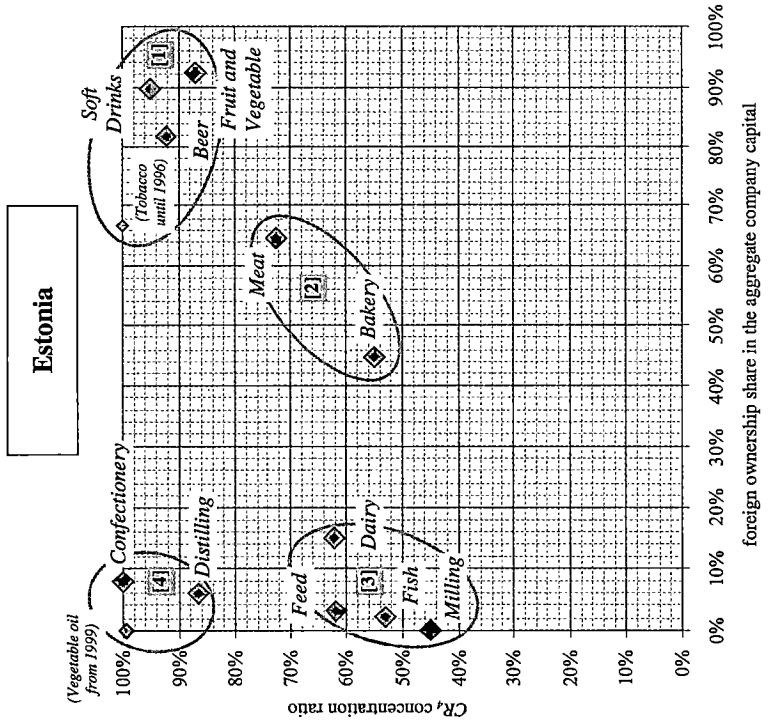


Figure 53. FDI-concentration map of the Estonian food processing.

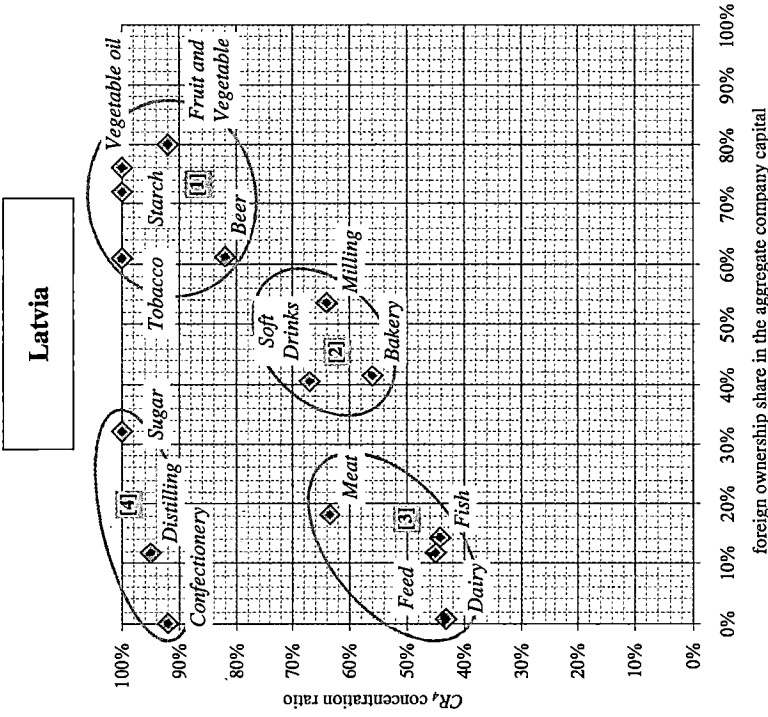


Figure 54. FDI-concentration map of the Latvian food processing.

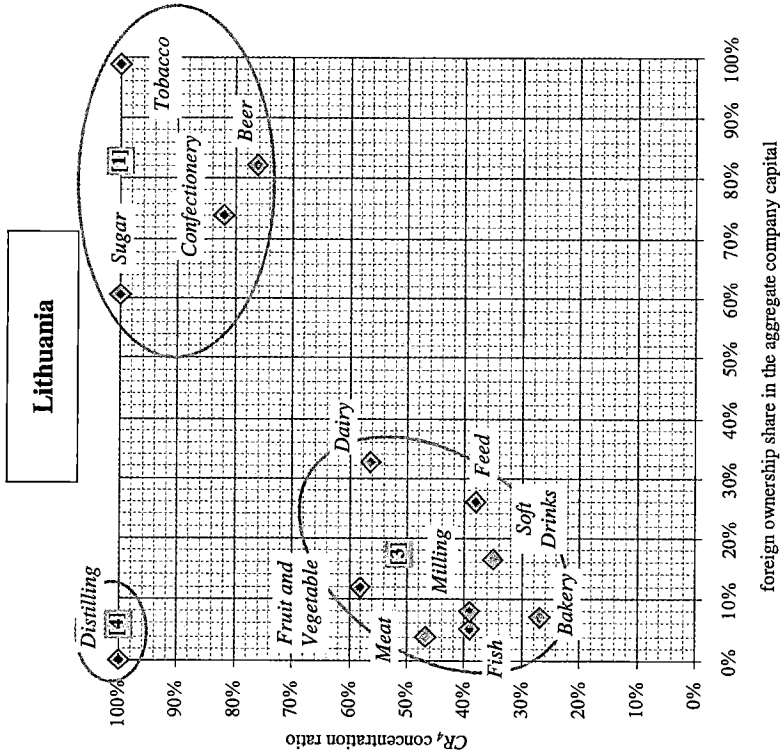


Figure 55. FDI-concentration map of the Lithuanian food processing.

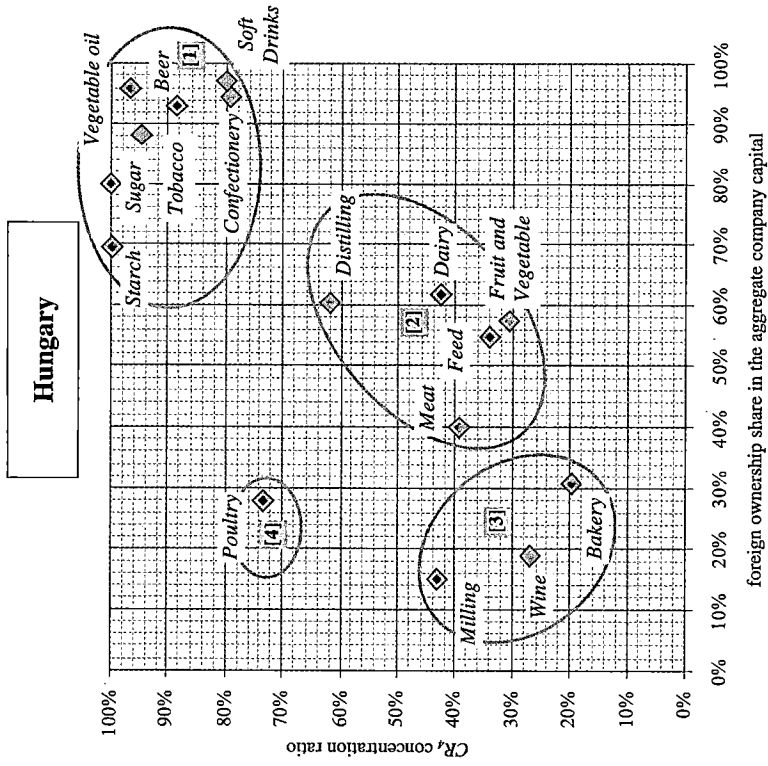


Figure 56. FDI-concentration map of the Hungarian food processing.

### 6.3.3.3. Group [1]: High Concentration – High Foreign Participation

Group [1] typically embraces *second-stage industries*, or sub-sectors manufacturing excise-, high value added-, or popular food products. Particularly confectionery, beverages, vegetable oil, sugar and tobacco industries belong to Group [1] in Central and Eastern Europe. Some industries followed the overall CEE trends also in the Baltic countries; others diverged considerably.

*Beer manufacturing* is the only industry that is situated – as a regular member – faithfully in Group [1] in each Baltic country. This fact has several reasons:

- (1) *Industry concentration.* Concentration again has to be ranked as one of the leading motives for foreign investors. Beer manufacturing consisted of 5 to 8 large-scale companies in the beginning of privatisation in all Baltic countries. Therefore, concentration was originally high in the beer industries. Furthermore, the dominant brewery in Estonia and Latvia enjoyed high market share of above 40 percent.
- (2) *Privatisation.* Beer industry embodies one of the rare exceptions when foreign investors were allowed and, in fact, attracted to take part directly in the privatisation process. This open privatisation strategy resulted in notable foreign participation already in the beginning.
- (3) *Reactive FDI.* Beer industry in CEE provides an excellent example of chain reactions of FDI inflow. Foreign breweries tend to follow each other's investments to the Central and Eastern European markets; the fact has been recognised as a common regional phenomenon. In a short period, the same breweries appear in CEE markets that usually compete with each others also in the large international markets. This pattern of chain reaction repeated itself also in the Baltic countries. The first move of BBH provoked the arrival of additional Scandinavian investors to the beer industry of each Baltic country.
- (4) *Growing consumption.* Typically domestic markets motivate beer industrial FDI. Beer consumption has been steadily rising since the middle of the 1990s in all the Baltic countries. Brewing offers excellent market perspectives for foreign investors.
- (5) *Financial motivations.* Beer manufacturing has stable financial status. Despite the intensifying competition, reasonable profits have been earned through the 1990s in all Baltic countries.

Another regular member of Group [1] in the CEE region is *soft drink industry*, which can be found in its usual zone only in Estonia (Figure 53). In Latvia and Lithuania, it is situated uncommonly lower (Figures 54 and 55). The major



explanation is to be searched in the international flows of soft drink investments and the market size-based attitude of the two global soft drink manufacturers. They pursue the typical regional strategy of large multinational enterprises in the Baltic region (see page 31-32). While Coca Cola and PepsiCo settle numerous plants to large consumption markets of Central and Eastern Europe, Coca Cola established only one production subsidiary in the Baltics. The plant in Estonia was designed to cover the entire surrounding region. PepsiCo did not set up bottling enterprises at all. Both companies are present also in all Baltic countries through trading subsidiaries or licensed production, but it does not translate to high concentration and high FDI of the soft drink industry in Latvia or Lithuania. Statistical figures indicate astonishingly low outputs for the Latvian and Lithuanian soft drink industries. Besides the lack of multinational enterprises, it is caused by another Baltic peculiarity: most of the domestically produced soft drink is originated from brewing companies and registered in the sales of the beer industry. Official statistics capture only the sales of specialised soft drink manufacturers with relatively small output in both Latvia and Lithuania.

*Tobacco manufacturing* is a typical member in Group [1] all over Central and Eastern Europe. Tobacco companies are globally among the most active foreign investors within food processing. All CEE countries have highly concentrated tobacco industries, which is the result of special characteristics of cigarette manufacturing: scale of economies and essential entry barriers. High industry concentration was a given fact in all three Baltic countries in the beginning of transition, since there was practically one tobacco manufacturer in each country. Eager foreign investors arrived very early to purchase the tobacco monopolies.<sup>52</sup> U.S. Phillip Morris acquired the Lithuanian-, while two Scandinavian investors, Danish House of Prince bought the Latvian-, and Swedish Svenska Tabak the Estonian tobacco producer. The strategic importance of tobacco companies was manifested in the special privatisation procedure, governments sold them directly to foreign investors. Their strategic importance is also signified by the fact that Latvian and Estonian states even retained a notable minority-share in the ownership of tobacco companies. Latvian and Lithuanian tobacco industries can be currently found in Group [1] on the national FDI-concentration maps. Although the Estonian tobacco industry has disappeared from the map due to unfortunate circumstances (see industry case study in sub-point 2.3.6.1), it used to be located also in Group [1] until 1996 (Figure 53).

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<sup>52</sup> They were monopolies in terms of being the single domestic manufacturer in the market. However, they can not be counted as monopolies in the strict sense of the term, since imported tobacco products presented competition since the beginning of transition.

The Baltic food sectors hold surprises also concerning the composition of Group [1] industries. *Estonian and Latvian fruit and vegetable processing* industries are both situated in Group [1] in their national FDI-concentration maps (Figure 53 and Figure 54). Such high shares of foreign capital are extraordinary in fruit and vegetable processing across the Central and Eastern European region.<sup>53</sup> Both industries were heavily concentrated already at the time of privatisation. Fruit and vegetable processing covers primarily juices in Estonia and juices and potato products in Latvia. FDI flowed into the dominant fruit and vegetable processing companies from Swedish Procordia AB to Estonia and US Norbiton Assets and Finnish Chips Oy to Latvia. Fruit and vegetable processing make up a successful segment in the food processing of both countries.

*Group [1] industries on the Latvian and Lithuanian FDI-concentration maps* deserve further attention. Group [1] in Latvia includes two additional industries besides the previously discussed ones: starch and vegetable oil processing. Both industries are typically concentrated in Central and Eastern Europe and tend to attract FDI. Therefore, their positions on the Latvian FDI-concentration map cause no surprise (Figure 54). *Starch industry* consisted of two companies in 1998, they are Swedish-Latvian joint ventures with Sveriges Starkelseproducenter having majority interest in both enterprises. *Vegetable oil industry* is reported to have absorbed Irish capital, although there is supposedly an investment of domestic origin behind. FDI in oil-seed crushing is very common, investments are made normally by strategic investors.<sup>54</sup> The offshore nature of investment observed in Latvian vegetable oil industry therefore may be regarded a special case.

Out of the Baltic countries, Lithuanian Group [1] best matches the CEE industry composition patterns of “highly concentrated-high FDI recipient” group. It contains confectionery and sugar besides beer and tobacco (Figure 55). Kraft Jacobs Suchard have dominated FDI in the *confectionery industry* since the beginning of transition, while Danish food industrial concern Danisco managed to acquire the majority stake of *sugar industry* after a long course of negotiations in 1998.

Although confectionery and sugar manufacturing are very popular investment targets elsewhere in the CEE, rather limited FDI flowed to these industries in Estonia and Latvia. In fact, they are part of an oddly situated group of

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<sup>53</sup> Another exceptional case is the renowned fruit and vegetable processing industry of Bulgaria, where canning facilities have absorbed over 38 percent of total food industrial FDI of the country (Vicheva 1999, p. 273).

<sup>54</sup> Vegetable oil processing in global terms has powerful European and US players, who have very actively invested into Central and Eastern Europe. Investors are motivated usually by abundant raw material and large domestic markets. The largest FDI projects were therefore concluded in countries such as Poland, Ukraine, Romania and Hungary that have massive amount of oilseed production and considerable vegetable oil consumption at the same time.

industries that lies very far from the true trend line of FDI-concentration maps. This group holds peculiar industry instances and interesting explanations that are reviewed in the next sub-point.

#### **6.3.3.4. Group [4]: High Market Concentration – Low Foreign Participation**

Group [4] encompasses mostly second-stage industries that are highly concentrated and typically popular targets of FDI. According to the underlying logic unveiled in the national FDI-concentration maps elsewhere in Central and Eastern Europe, they should have moved to the terrain of Group [1] right after restructuring. Still, in the Baltic countries they remained in majority domestic ownership until the year of observation at the end of the decade. The relatively large size of outlier groups suggests that *these industries were deviated from the main trend by generally prevailing conditions of restructuring and privatisation in the food processing.*

*Distilling industry* is uniformly located in Group [4] in all three Baltic countries. These industries consist of one to four large companies and a few medium-scale ones, which construes high industry concentration. Explanation of low FDI is related to the schedule and chronological order by which food processing industries were privatised. Distilling was left as the last industry to be privatised in a number of CEE countries. The sub-sector is regarded a strategic one among food industries. It is a source of excise tax revenues and spirits have excellent value added content: valuable final product is manufactured by utilising very inexpensive raw material. Hence, distilling industries are generally known about their healthy financial performance.

Similar to some other CEE countries, distilling industries were spared for the end of food processing privatisation also in the Baltic countries. In Latvia, the largest distilling company was privatised as late as in 1997, while Estonian and Lithuanian distilling companies remained in state ownership even longer; their privatisation was scheduled only for 2000. Since FDI-concentration maps reflect the status of 1998 on page 186 and 187, state ownership is an obvious explanation for low foreign capital participation in Estonia and Lithuania. The Latvian distilling industry has a different background, which leads us to the investigation of a very special Baltic feature of food industrial privatisation.

Besides *Latvian distilling, Estonian and Latvian confectionery industries* exhibit demonstrative examples of a *special effect of crowding-out FDI* in Baltic food processing privatisation. Powerful domestic investors bought up the flagship companies of these industries, before FDI could have ever flowed in. Acquisitions included Latvijas Balsam, the dominant distillery, and Rigas Vini, the country's only champagne manufacturer in the field of Latvian distilling industry. Two famous and traditional chocolate manufacturers Laima in Latvia and Kalev in Estonia were also acquired by domestic owners. Both companies

have absolute dominant power in the confectionery industries. These second-stage industries are normally primary targets of food industrial FDI. Their discrepant positions on the FDI-concentration maps, therefore, require a thorough elucidation of the phenomenon behind.

The *effect of crowding-out FDI* is analogous with what is known as “insider-privatisation” in the literature. Bevan et al. (1999) displays a list of studies that analysed the performance of CEE companies based on their ownership. Several studies encountered the fact that privatisation programmes may have allowed insiders – employees or managers – to select enterprises prior to or during the privatisation process. In such cases, all potential external owners including domestic corporate investors, private persons as well as foreign investors were crowded out of privatisation opportunities. Based on the findings of several empirical studies, they argue that employees and managers had a close insight view on their own company, by which they could easily decide whether the firm is worth acquiring well in advance. Earle et al. (1996) analysed Russian insider privatisation and argued that employee- or management-owned companies would accomplish slower restructuring and development due to their risk averse attitude, potential difficulties of access to capital, reluctance to shed labour and slower exchange and recruit of new managers (Bevan et al. 1999, p. 23).

It has to be stressed that the analogy between the crowding out effect in the Baltic food industrial privatisation and the example of insider privatisation is rather incomplete. The scope of “beneficiaries” was largely different in the Baltic case. They were usually mighty domestic corporate investors with powerful business potential, financial contacts and political relations. A parallel aspect, however, is that they also had a profound insight to the status of not just one, but most of the food industrial companies to be privatised. A further parallel aspect with insider privatisation is that these corporate investors had power to select and acquire the most prosperous prospects, typically the market leaders of various food industries in the early stages of privatisation. Other potential external investors such as foreign companies were consequently crowded out from the initial acquisition opportunities. Since in the Baltic food processing the new corporate owners are virtually outsiders to the company, none of the adverse effects identified above for insider privatisation has applied to them. The financial relations of the new owners of Latvian distilling and confectionery and Estonian confectionery companies guaranteed a secure access to capital for continuous modernisation. On the other hand, these successful dominant companies have always had good credit opportunities due to their solid economic and market background.

The mightiest domestic corporate owners (see footnote 9 on page 28) have accumulated a portfolio of market leaders and the most prosperous companies from both first-stage and second-stage processing industries since the beginning

of privatisation. A variety of different enterprises were acquired from dairy, fish, meat, bakery, confectionery, beer, alcoholic beverages, and sugar industries. Foreign investors also prefer buying market leaders and companies with considerable market power. Hence, in many cases, foreigners were virtually crowded out from concluding the best purchase opportunities in the Baltic food processing privatisation. Still, the crowding-out effect is reflected only in the case of a few outlier industries on the national FDI-concentration maps, which has two main reasons:

1. First-stage processing industries are less concentrated and less affected by foreign capital anyway. Therefore, those industries would not be diverted from the main trend on FDI-concentration maps even if domestic corporate investors acquire the market leaders or other significant companies.
2. Corporate investors acquired some food processors with the purpose of long-term ownership, others were bought as intermediary investments. The resale of some important companies contributed to the phenomenon of Baltic food industrial inward FDI, the “two-step ownership change”. Some of the most well known incidents, when foreign investors bought shares of market leading companies from domestic corporate investors are examples of Estonian meat, Latvian bakery and Lithuanian sugar industries.

*The deviating power of crowding-out effect in the cases of Latvian distilling and confectionery as well as Estonian confectionery industries is evident on the national FDI-concentration maps.* These second-stage industries have extremely concentrated industry structure where dominant companies were seized by corporate domestic investors early in the privatisation and have stayed in their ownership ever since then.

*Latvian sugar* is an additional outlier industry that falls in Group [4]. In fact, foreign investors have managed to acquire a notable share in the sugar factories but have not been allowed to increase their shares. Regulations prefer the permanent ownership of sugar beet producers, therefore Latvian sugar industry is stuck in the transitory zone between Group [4] and Group [1]. It is not predicted to move forward unless dramatic changes shake the ownership structure of the industry.

### **6.3.3.5. Country Specific Remarks**

A comparison of Baltic FDI-concentration maps reveals the major country specific characters in terms of the distribution of industries among the four groups.

*Estonia* has the smallest number of observations among the Baltic countries. Being the smallest of the three food sectors it lacks some common industries such as sugar and tobacco that are present in both other countries. The bulk of Estonian food processing is centralised in a few large industries.

*Latvia*, on the other hand, has the highest number of observations, mostly because accurate statistical data were available also about the smaller industries. Furthermore, Latvian food processing is, indeed, fairly diversified encompassing a wide range of food processing activities. One peculiarity of the array of Latvian FDI-concentration map is the even distribution of industries among the four groups, each group holding 3 to 5 industries (Figure 54).

*Lithuania* presents the most interesting formation of groups. Its Group [1] is of normal size including four industries. Group [4] is the smallest among the Baltic countries, while Group [3] is the most populous in the region. What makes the Lithuanian FDI-concentration map very interesting is its missing Group [2]. The only industry that is moving dynamically from Group [3] towards Group [2] is dairy, which has not quite reached the area of Group [2] yet. The Lithuanian arrangement of industries is very edifying, since it evinces the pattern of Baltic FDI-concentration maps from the early phase of privatisation. The industry distribution in all three Baltic food sectors initially followed a two-pole pattern: some concentrated industries bounded forward at once right to the area of Group [1], while the rest of the industries remained on the left side with very limited foreign participation. As a result of gradual FDI influx, Group [2] was formulated later by a few industries detaching from Group [3] in Estonia and Latvia. Lithuania, however, has preserved the two-pole pattern on its FDI-concentration map until 1998. One reason that has frozen the location of some first-stage processing industries was agricultural lobbying and regulations that promote the permanent shareholding of agricultural producers in the processing facilities.

#### **6.3.4. Comparative Analysis of the Baltic Countries and Hungary**

The comparative analysis of Estonian, Latvian and Lithuanian FDI-concentration maps already presented countless hints to the overall patterns of food industrial distribution of FDI in Central and Eastern Europe. The Hungarian FDI-concentration map serves the purpose of contrasting the Baltic patterns to the distribution of another CEE country (Figure 56). Hungary was chosen for three reasons. (1) The country is of average size among the numerous Central European transition economies. (2) Food processing has significant role in manufacturing and in the whole economy just like in the Baltic countries. (3) Hungarian food processing has been most affected by foreign capital in Central and Eastern Europe. As of 1998, foreign ownership share was as high as 62.6 percent. Hence, it represents an extreme case of food industrial FDI and an interesting basis for contrasting national patterns of distribution of industry positions.

The findings of the comparison between the Baltic and Hungarian FDI-concentration maps can be summarised in the following points:

1. *Same trend on the FDI-concentration map.* The underlying conclusion of the comparison is that the industry distribution of food processing FDI in Hungary follows exactly the same trend that was identified for Estonia, Latvia and Lithuania. *Market concentration is the primary motivation of foreign investor's industry choices both in the Baltic and Hungarian food sectors.*
2. *Privatisation in first-stage processing industries.* As the cases of Baltic food industries confirmed, privatisation has crucial role in determining industry locations. *The Hungarian food industrial privatisation resembled the Baltic approach in one major aspect: on the pressure of agrarian lobby some of the first-stage industries such as dairy, milling and sugar were selected to ensure the participation of agricultural producers in the privatisation.* They were provided some preferences like utilisation of compensation coupons, however they had to participate in the bidding process together with other potential investors. Agricultural producers eventually managed to gain notable, albeit minority shares in dairy, sugar, and milling industries by the end of privatisation. Domestic corporate owners and private persons acquired the majority ownership share in the meat and poultry processing and in the grain processing industries. Foreign investors often increased their influence by purchasing the shares from domestic owners in several first-stage industries.
3. *Privatisation in other industries.* The rest of the Hungarian food processing was privatised on commercial basis. The same rights and obligations applied to all potential investors. Since no group of strong domestic investors emerged with such powerful business-, political-, and financial relations as occurred in the Baltic countries, foreign investors regularly won the bidding for the largest processing companies against domestic investors. Tender offers were appraised by merely financial considerations, hence domestic investors were crowded out from several sub-sectors almost entirely. Foreign ownership became dominant in many industries directly in the course of privatisation. *Apart from some minor stakes in a few first-stage processing industries, the majority of FDI flowed to the Hungarian food processing through a one-step ownership change as opposed to the Baltic model, where a significant portion of food industrial FDI arrived after privatisation through the second-step of ownership change.*

4. *Classification of industries.* The same grouping is relevant for the Hungarian FDI-concentration map that was used for the Baltic food sectors. Groups [1], [2], and [3] can be distinctly identified. Group [4] is much less pronounced than in the Baltic countries, not a single industry can be found in the upper left corner of the map. The only corresponding industry may be poultry, which is characterised by a dozen of strong domestically owned processors and rapid consolidation through acquisitions.
5. *Position of the trend line.* The Hungarian trend line is situated more right and lower than the corresponding lines of the Baltic countries. The horizontal distance is evidently attributable to the gap measured in FDI ownership shares, while different size of the food sectors are responsible for the vertical positions.  $CR_4$  concentration ratio results in higher values in the relatively smaller Baltic processing industries than in the Hungarian ones.<sup>55</sup>

The comparison detected specific differences between the privatisation approaches of the Baltic and Hungarian food processing. Additionally, a disparity was identified in the positions of the trend lines. Yet, *the comparison confirmed that the main trend prevails in the food sectors of all four countries: market power and foreign ownership shares in the food industries are highly correlated. Furthermore, a common pattern of classification and grouping of industries is applicable for all the investigated national FDI-concentration maps.*

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<sup>55</sup>The  $CR_4$  ratios – on average – are situated even lower for such a big country like Poland. However, the differences in the vertical position of the trend lines do not affect the validity of the main trend. The significant correlation between market concentration and foreign ownership shares prevails in the Baltic countries, in Hungary as well as in Poland, even if slopes and intercepts of the trend lines differ from country to country (Jansik 2000b).



## 7. Conclusions

The study attempted to document the magnitude of food industrial FDI inflow to the Baltic countries and to search the industry-specific determinants of foreign capital. The latter issue raised one of the ultimate research problems as to what has driven the allocation of foreign capital among national food sectors and among particular processing sub-sectors.

The entire research was built upon the industry approach as the core aspect. *Economics of industrial organisation* constituted the underlying theoretic and conceptual foundation for the study. Food processing was analysed through the thorough investigation of its several constituent sub-sectors, which form markets of distinctly separable products or product groups.<sup>56</sup>

Revisiting the research objectives of the study in the following section will set the stage for presenting the findings and conclusions. *Four research objectives* were set in the beginning of the study. They are restated hereafter with *concise remarks* attached to each objective.

### *1. Explaining the developments in the Baltic food processing and the characteristics of food industrial FDI.*

The general overviews of the country studies confirm that despite the slowly decreasing shares, food processing was still the leading industry within the manufacturing sector of the Baltic countries. In 1999, it accounted for 28 percent in manufacturing output of Estonia and Lithuania and 34 percent in Latvia. Due to the economic weight of food processing, the ownership change of the industry was of crucial importance in all three countries. By the end of the decade, the privatisation process was almost entirely completed.

Foreign investors steadily increased their influence in the rapidly changing ownership structure. They acquired 43.8 percent in the Estonian, 28.4 percent in the Latvian and 20.1 percent in the Lithuanian aggregate registered company capital of food processing by 1999.

Foreign capital has shown different interest in the individual food processing industries in the Baltic countries. High interest was shown towards tobacco and beverages, while first-stage industries typically attracted minimal FDI. Interesting exceptions are Estonian and Latvian bakery, Estonian meat, Latvian milling and Lithuanian dairy industries.

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<sup>56</sup>The 21 industry case studies make up a weighty proportion of the study. Although the "Structure-Conduct-Performance" causation flow lies behind each industry case study, the individual elements of SCP paradigm are not strictly followed or distinguished in the explication.

*Table 54. Food industries selected for case studies by country and degree of FDI influence.*

	high FDI	medium FDI	low FDI
Estonia	tobacco, beer	meat, bakery	dairy, fish, vegetable oil
Latvia	beer	milling, bakery	dairy, fish, meat
		sugar	
Lithuania	sugar, confectionery, beer		meat, milling, feed
		dairy	

*2. Documenting the major changes of ownership, market structure and performance of selected Baltic food processing industries in the transition period.*

Each country specific chapter included seven industry case studies. Industries were chosen for detailed investigations based on their significance in food processing and demonstrative characteristics in terms of food industrial FDI. The selected industries are classified by the influence of FDI in Table 54.

The industry case studies confirmed the fact that privatisation policy and concrete implementation practices as well as attainable market power are the major factors that have engendered the low and high share of foreign capital. Industry performance was also investigated in numerous case studies. Due to lately accelerating FDI inflows, however, it is too early to draw conclusions on the effects of FDI on industry performance.

*3. Survey of motivations, strategy and experience of Finnish food processing investors in the Baltic countries.*

The motivations and attitude of food industrial FDI was scanned through the experience and strategy of Finnish food industrial investors in the region. In the list of geographic origin of food industrial FDI, Finnish capital ranks first in Estonia and Latvia, and third in Lithuania. These positions justified the selection of investors for the survey, since the attitude and strategy of Finnish food processing investors appropriately represent the characteristics of FDI in the region. The survey covered 21 of the total registered 23 investment projects of Finnish food processors in the Baltic countries.

Finnish food industrial investors were driven primarily by market opportunities in the individual target Baltic countries. Investing companies attributed more motivational importance to market and cost factors than to institutional factors. Market size, market growth potential and labour cost advantages received the highest scores from investors. Among obstacles, the old-fashioned attitude of management and lack of marketing expertise were considered the most serious ones. Vertical relations in the agri-food chain are usually of high

importance and influenced by political and other non-business factors. However, Finnish food processors claimed that they have established mostly commercial relations with agricultural suppliers. Investors widely anticipate that accession of the Baltic countries to the EU will widen the possibilities of their Baltic subsidiaries. As a sign of confidence, the majority of the surveyed companies are planning to increase their presence in the Baltic food processing.

#### *4. Explaining the driving forces of uneven industrial distribution of foreign capital among the food processing sub-sectors in the Baltic countries.*

As mentioned in the beginning of this concluding chapter, one of the ultimate research problems was to identify the forces that have driven the allocation of foreign capital among the individual food processing sectors. The uneven sub-sectoral distribution of food industrial FDI was discovered in the country studies of the research. The determinants were analysed in Chapter 6.

The preceding FDI literature, which conceived on the ground of industrial organisation, includes abundant theoretical considerations and empirical evidence in support of the strong relation between market structure and foreign direct investment. This idea was utilised and further developed in the current research. A novel analytical tool, the concept of FDI-concentration map, was introduced. *National FDI-concentration maps are demonstrative tools to illustrate the distribution of food processing industries of a given country at a given time in a system of coordinates. FDI-concentration maps are plot-charts of two industry attributes: market concentration and foreign ownership participation.*

The positive correlation between these two industry attributes was also confirmed by descriptive correlation measures. Beside the quantifiable factor of market power, privatisation approach was found to determine the inflows of foreign capital into the particular food processing sub-sectors of the Baltic countries.

The current concluding chapter continues with reiterating the major issues of food industrial FDI in the Baltic countries in a Central and Eastern European context. The principal findings of the study are highlighted and summarised in the light of corresponding regional tendencies.

### **7.1. Common Patterns of Baltic Food Processing**

The turn of the 1980s and 1990s brought immense changes for Central and Eastern Europe. Besides political freedom, fundamental economic reforms were introduced including corporate restructuring, privatisation, and trade liberalisation. National economies experienced a “structural recession” as a result of new operational environment and the radical ownership reforms. Food processing suffered across the entire region. Production dropped drastically due to legal

and economic uncertainty, instability of raw material produce, and sharply decreasing purchase power. The changes signified a milestone in the history of Baltic countries since they stepped into the new era as independent states.

*Baltic food sectors shared a common past in the previous regime, which predetermined their destiny to face similar difficulties in the transition period.* They inherited inflated production capacities and anomalies in industry composition. Production used to be developed to supply the vast soviet internal markets with inexpensive mass food products. Development objectives reflected preferences for basic foodstuffs, and created oversized dairy, meat and grain sectors.

Soon after declaring independence, Baltic food processors realised that the historic production levels can not be attained again, since the favourable economic environment including beneficial cost-price relations, subsidised consumption, extensive demand for basic quality foodstuffs, and easy access to vast markets can never be re-established in the new status.

*Detachment from the gigantic food supply system brought about painful adjustments.* Food industries shed one-fourth of their labour force between 1992 and 1998. Production contracted in almost all food processing industries, with some declining much more drastically than others. *The different decline rates and the changing market conditions rearranged the industry composition.* Dairy and meat processing used to dominate food processing with equal shares until the end of the 1980s. In each Baltic country, meat industry suffered the biggest losses dragging along the shares of feed industry. The fact that dairy industry has preserved or even raised relative weight suggests that dairy bears permanent competitive advantages compared to the meat processing chain. Fish processing got into a deep crisis in all three countries, while domestic-market based industries such as bakery, sugar and beverages have raised their relative weight in the national food sectors. One feature of realigning industry composition was a pronounced shift of weight from export oriented industries to domestic-market oriented industries. *The overall significance of domestic sales has increased in the food processing of all Baltic countries.*

The temporary recovery of eastern export sales postponed fundamental structural changes and modernisation in some industries. *The Russian financial crisis in August 1998* accentuated the risk of over-dependency on eastern sales. Production volumes took the deepest dive in the brief history of transition. Sales difficulties *provoked the continuation of grievous adjustments* that were manifested again in laid-off labour and bankruptcies. Baltic food processors learnt several important lessons by the end of the decade:

- ◆ reliance on one single export direction is extremely risky,
- ◆ production outputs has to be stabilised at much lower levels than initially anticipated,
- ◆ domestic consumption and domestic market positions are of supreme importance,

- ◆ modernisation can not be postponed in any of the industries,
- ◆ the new economic environment requires new business mentality.

Corporate adaptation skills to the new environment were measured by survival in the changing market conditions. Transition years witnessed the emergence of *fierce competition in the Baltic food processing industries*. Rivalry was intensified particularly by two factors. (1) Economic freedom boosted the number of new enterprises, while (2) oversized production and decreased sales opportunities resulted in redundant capacities at the existing companies.

## 7.2. Ownership Reform

*Ownership reform was undoubtedly the most influential and fundamental change in the food processing sectors in the entire Central and Eastern Europe.* Food processing was among the first sectors to be put on the privatisation schedule in all countries. Although the fact that state ownership should be changed to private was a subject of wide consensus, the priority order and special rights of private owner groups engendered debates throughout the CEE region. National privatisation policies set largely differing frameworks for food processing industries based on macroeconomic conditions and the pressure from potential domestic owners.

Foreign investors presented the most powerful form of private ownership in the food processing of Central and Eastern European economies. Foreign strategic investors had competence and financial strength, with which they could afford offering competitive bids for the best food processing companies in privatisation. In commercial bidding conditions, foreign investors easily outperformed the offers of domestic private persons, corporate investors, and employees or managers. All over Central and Eastern Europe, domestic private investors needed extra rights to counterbalance the potential offers of FDI. They scrambled for preferences and special treatment in a contest for the shares of food processing companies. Agricultural producers claimed rights to own first-stage processing industries, while employees and managers in some cases used their insight knowledge to present custom-tailored and competitive business plans for their own companies. Domestic private persons and corporate investors were usually not strong enough to effectively compete with foreign investors for large second-stage processing companies, since they had limited access to working capital in the infant domestic banking sector.

*Privatisation of the Baltic food processing* involved five important groups of owners as elsewhere in the CEE region: (1) agricultural producers, (2) employees and managers, (3) domestic corporate owners, (4) private persons, and (5) foreign investors. Most groups expressed great interest in participation of the ownership reform of Baltic food processing.

Agricultural lobbying resulted in special legislation for the privatisation of the largest industries such as dairy, meat and grain processing. The financial weakness of *agricultural producers* was offset with privileges in all three Baltic countries. The attempt visualised the emulation of the Western and Northern European model of vertically tight food processing chains, where certain first-stage processing sub-sectors are controlled principally by farmers. The idea lacked relevance in the Baltic economic conditions. In a situation, where agricultural producers are occupied with the financial difficulties of basic production, they cannot manage the dual function of being the supplier and owner concurrently. Short-term supplier attitude is destined to win over long-term ownership considerations. Decades of peaceful development within the national borders would be needed to develop effective farmer-owned dairy, meat and grain processing chains. The urging international environment, however, does not allow such a strategy. Baltic States together with other CEE countries are eager aspirants to membership in the European Union, where there is presently limited room for national agricultural initiatives.

*Employees and managers* succeeded to acquire certain companies but their overall share remained rather moderate in the Baltic food processing after privatisation. Apart from a few successful occasions, they tend to fall victims to the enormous capital needs of modernisation. A reluctance to lay off labour drags back labour-productivity growth, while slow adaptation of modern management techniques may press down the company in the toughening competition.

*Corporate domestic owners* are present in the entire Central and Eastern Europe, they make up a diverse group of different size and economic potential. One group of corporate owners includes other food processing or trading companies with decades of history. Another group emerged during the years of transitions, when private individuals – usually lawyers, economic experts, and politicians – established new enterprises to acquire food processing firms. The success of these holding companies was dependent on their influence on the concrete implementation of privatisation or the ability to lobby for the ownership of the selected privatisation objects. Domestic corporate investors attained notable positions through the privatisation of food processing in Central and Eastern Europe. The acquisitions of newly established holding enterprises vary from country to country. Their robust presence in the Baltic countries is visible even on the national FDI-concentration maps.

*Private persons* are typically small shareholders, who took advantage of the opportunities to buy shares in the publicly privatised food processing companies. Compensation coupons or vouchers were often used to conclude the purchase. Due to the fragmented ownership structure, they usually do not represent powerful force in shaping the corporate strategy, nor do they guarantee access to additional working capital for modernisation.

Several determinants can be identified that drive *foreign investors* to the food processing of CEE countries. Privatisation policy and the concrete implementation of privatisation were certainly influential determinants. Participation of foreign investors in the Baltic food industrial privatisation remained relatively modest due to the strong power of other owner groups, primarily agricultural producers and domestic corporate investors.

*The ownership structure that emerged as a result of privatisation proved to be rather volatile in the Baltic food processing.* Sales difficulties, oversized production capacities, and the strict conditions of market economy soon disclosed the real power of new owners. Farmers, employees, managers and private individuals started to lose their proportion, as companies failed and redundant capacities were gradually eliminated in the competition. Post-privatisation ownership changes have involved two typical aspects: (1) banks have taken over bankrupt or indebted companies mostly as a consequence of the Russian crisis, and (2) foreign investors have increased their shares usually by company acquisitions. This second phase of ownership change is not particularly a Baltic characteristic, it can be detected in all CEE food sectors. Privatisation involved the total scale of state-owned processing capacities, which reflected the production levels of pre-transition period. Decreasing food demand and productivity growth of the successful companies fast launched a reduction of capacities, hence the ownership structure changed by the eliminated companies. Banks became unwilling owners of several indebted food processors, which they attempt to resell desperately. Further changes are induced by company acquisitions in which foreign investors play an active role.

Although FDI-inflows are noticeable components of the post-privatisation ownership changes in most CEE food sectors, the process is prominent in the Baltic countries. The term "*two-step ownership change*" refers to the fact that a considerable part of FDI arrived to the Baltic food sectors by purchasing shares from the new private owners, the foreign acquisitions being the second change of ownership in a short time.<sup>57</sup>

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<sup>57</sup> FDI may arrive also in a "one-step ownership change" when foreign investors buy the companies directly through privatisation. A distinct example is the food processing of Hungary, where foreigners acquired over 50 percent of the sector straight from the state. The question, which alternative is better, is not as evident as it might seem for the first sight. Privatisation revenues were used to ease the state-budget deficit in Hungary, and they were not pumped back to the food sector. Two-step ownership change allocates the same revenues to farmers, employees, managers or domestic corporate investors instead the state-budget. Private sector has benefited directly from the foreign capital infusion in Baltic food processing, and the method alleviates the acute capital shortage in the agri-food chain. On the other hand, the arrival of FDI through a one-step ownership change results in instant involvement of foreign investors and fosters rapid modernisation.

### 7.3. Attributes of Food Industrial FDI in Central and Eastern Europe

Food industrial FDI has several distinct attributes that can be recognised in the entire Central and Eastern European region.

1. *Food processing FDI is motivated predominantly by the consumer markets of the target countries.* Foreign investors regard export opportunities as pleasant but not necessary additional benefits. Out of the four motivational aspects frequently cited in international FDI literature,<sup>58</sup> food industrial foreign investments have primarily had market-seeking nature followed by considerably weaker resource-seeking aspect.<sup>59</sup> Food industrial FDI is attracted into each national market of the CEE region regardless of the relative labour cost ratios. Although an entry threshold exists in all food industries, the scale of the particular subsidiary is determined by the size of the target market. Strategic asset seeking have rarely been detected in food industrial investments to the CEE region. One approximate equivalent for strategic asset benefits might be utilisation of domestic trademarks or brands of acquired companies.

2. *In terms of geographical origin, food industrial FDI is broadly divided into the large projects of multinational giants and the smaller investments of national food processors.* These two groups of companies form the geographic patterns of food industrial FDI. *Multinational enterprises and large European investors* set up several production subsidiaries and locate them in Central and Eastern Europe pursuant to a broad regional strategy. Proximity is of utmost importance to *small- and medium-scale investors*, who have often been inspired to go international by the unique opportunities of economic transition. They tend to focus attention on the adjacent CEE countries.<sup>60</sup> Historic, cultural and language ties, logistic and communication advantages evidently play a crucial role in shaping the trend. Geographic investment patterns of small- and medium-scale Western European companies can also be traced in the recently evolving food industrial FDI-flows within the Central and Eastern European countries.<sup>61</sup>

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<sup>58</sup>The four motives are: *market-seeking* (taking advantage of domestic consumption through locally produced and marketed goods), *resource-seeking* (utilising specially available production resources such as raw material, cheap labour etc.), *efficiency-seeking* (pursuing the benefits of economies of scale), and *strategic assets-seeking* (access to specialised labour, know-how, patents, R&D facilities etc.) (Traill 1997, p. 397).

<sup>59</sup>The pattern is opposite for export-driven manufacturing industries such as textile or automotive industries, which seek cheap labour (resource) and scale of economies (efficiency).

<sup>60</sup>Concrete cases confirm the tendency throughout Europe. High number of small- and medium-size food processing investment projects was attracted from Greece to Bulgaria, from Austria to Hungary, from Germany to Hungary, Czech Republic and Poland and from the Nordic countries to the Baltic States.

<sup>61</sup>Some of the first signs are cross-acquisitions in the Baltic food sectors or Hungarian food industrial investments in Slovakia and Romania.



3. *Privatisation in the food industries opened unique prospects for FDI in the CEE region. Acquisitions of existing food processing companies* have clearly been the most preferred option for foreign investors to penetrate into a new market. *Green-field investments* were chosen very rarely, usually when access to acquire privatised companies was blocked or impeded in an otherwise appealing market.

4. *The common pattern of uneven sub-sectoral distribution is probably the most interesting attribute of food industrial FDI in Central and Eastern Europe.* Many factors drive the industry choices of foreign investors. Privatisation approach and several characteristics of the industries certainly have strong influence. Out of all factors, attainable market power proved to motivate the industry composition of food processing FDI most patently. *Foreign investors tend to purchase market leaders, dominant companies or enterprises with significant market position or growth potential.*

The fourth attribute is the most significant recognition in the above list of characteristics. Foreign investors show superior characteristics in several aspects compared to other private owners. They provide technology know-how, marketing and logistic expertise, capital for development and long-term commitment to the company. In exchange for the powerful financial and technical background, foreign companies apparently expect market power. Market power has been considered the most essential performance benchmark in the turbulent transition period, when even volatile corporate profitability may be a misleading indicator. Foreign investors are truly driven by profit expectations. They anticipate that market power can be converted into high profits, as economic environment becomes stable and consolidated in transition economies. *The two driving factors, market power and profitability can be postulated from the ultimate determinants of FDI: growth pressure and profit maximisation objective of the foreign food processing firms.*

#### **7.4. Concrete Manifestation of the Attributes in the Baltic Countries**

*The above attributes of food industrial FDI were found to prevail also in the Baltic food processing.* Industry case studies confirmed that *foreign investors are primarily interested in the domestic food markets.* Besides domestic sales, export opportunities are also taken advantage of, but they are typically of secondary importance in the investment decisions.

*Two types of foreign companies* appeared in the Baltic food processing in two clearly separable time period. A group of *multinational enterprises* and some large investors arrived in the first haste of food industrial privatisation. The second group of investors, which is more numerous in terms of investment projects, arrived after privatisation. This second group includes investments of

various sizes, which have been concluded almost exclusively by *Scandinavian food processing companies*.

*Apart from a few green-field projects, the large majority of the food industrial foreign investments involved the acquisitions of existing companies.* Greenfield investments in industries with serious over-capacities are typically signs of crowding out effects in food industrial privatisation. In other cases green-field projects involved the manufacture of entirely new product group. Acquisitions, however, was the relevant option in most cases of food industrial FDI.

The sub-sectoral distribution of industrial FDI fully follows the common Central and Eastern European patterns. *The food processing foreign investors' ultimate search for market power is one of the most significant findings of the study. Empirical evidence indicates that absolute size of market bears less importance to foreign investors than the attainable market positions. Strong correlation was found between industry concentration and foreign ownership share in the industries' registered capital, while no correlation was detected between industry size and foreign capital participation in the food processing industries.*

The findings were enlightened also graphically on the national FDI-concentration maps. Baltic evidence suggests that food processing industries can be classified into four distinct groups based on the values of the two divisional indices: Group [1] high concentration – high FDI, Group [2] medium concentration – medium FDI, Group [3] low concentration – low FDI, and Group [4] high concentration – low FDI (Figures 53-55).

Privatisation policy and industry characteristics such as first-stage or second-stage processing have had clear impact on the industry positions. The Baltic food industries, however, confirm that market power is the principal determinant that drives the industrial distribution of food processing FDI.

1. First-stage industries tend to be located in Group [3]. In the case of sufficient concentration and promising acquisition prospects, foreign capital flowed considerably even into large first-stage processing industries, such as Estonian meat, Latvian milling or Lithuanian dairy, pushing them to the zone of Group [2]. Estonian and Latvian fruit and vegetable processing provide evidence that some very concentrated first-stage processing industries may get as far as Group [1] in a short period. This fact verifies that market concentration is the ultimate driving-force of industrial distribution of FDI.
2. Second-stage industries usually tend to be situated in Group [1]. Food industrial processors prefer these industries, because they typically have concentrated industry structures, good financial perspectives, and promising sales prospects on the domestic mar-

kets. FDI again is primarily lured to these industries by the attainable market positions. However, Baltic examples also confirm that strong factors such as the effect of “crowding-out FDI” may divert even these industries from the main trend. The Baltic approach of food industrial privatisation and economic environment permitted and enabled some domestic corporate investors to select the best privatisation objects. Purchasing the dominant companies resulted in deviations from the major tendency in the case of entire industries such as Latvian distilling and sugar or Estonian and Latvian confectionery. These industries stayed in the terrain of Group [4] on the FDI-concentration maps (Figures 53 and 54).

Although the concrete composition and location of the groups differ from country to country, *the descriptive correlation measures and the national FDI-concentration maps have verified the hypothesis that food industrial FDI is seeking market power and market positions in the Baltic countries as well as in Hungary.*

## **7.5. Future Considerations**

Future considerations raise a really significant question: *who will gain control over the Baltic food markets?*

*The first possible response* includes an optional choice between *domestically produced food and imported products*. Baltic markets are of increasing importance to foreign food processors. Many of them target the markets through trading channels. Food import of Baltic countries rose tremendously after trade liberalisation. Once the Baltic countries join the European Union, flow of goods and commodities including foodstuffs will be easier than ever. Notwithstanding, there are strengthening signs of loyalty to domestically produced food in the Baltic countries. Domestic food processors have realised that stimulating this consumer attitude would protect their interest against the threat of imports. The nearby Nordic consumption patterns show models of strong loyalty to domestic foodstuffs. In the Baltic region, the tendency varies by country and product group. It is strongest in Estonia, but it is evolving also in Latvia and Lithuania. Foreign food exporters have to realise that *consumer loyalty* may prevent them from exploiting the full potential of Baltic food markets. The fact *would enhance a slight shift from foreign-trade based approach to foreign direct investment*. Some of the product markets such as beer apparently cannot be conquered by imports, consumption patterns require local brand names and local presence of production. Sugar is an exceptional product with carefully designed mechanism to protect domestic production in European countries. Consumer loyalty, logistic reasons and special product characteristics may also prove the advan-

tages of FDI over food trade in the case of dairy, meat, or bakery products. Other domestic food articles such as wines, spirits, confectionery, poultry products or cigarettes enjoy relatively less support from consumers, primarily due to limited assortment of locally manufactured alternatives. Fruit juices present an interesting scale of attitudes, since consumer loyalty is strong in Estonia, reasonable in Latvia and rather weak in Lithuania.

The success of imported products is going to be a function of price relations and the availability of corresponding domestically manufactured products. *Foreign food processors, however, will have to take consumer loyalty into account in choosing between foreign trade- and FDI-based market penetration strategies, when they target the Baltic food markets.*

*The second response* to the opening question of future considerations envisages the growing influence of regionally *consolidating companies on the Baltic food markets*. The strongest food manufacturers are eager to expand to the neighbouring countries by taking advantage of the homogenising Baltic market. *The emergence of powerful pan-Baltic food processors has already commenced and is anticipated to progress steadily in the future.* Joining forces in the Baltic food processing is fuelled by the same driving forces that have motivated the rise of large European or global food manufacturers. Two types of pan-Baltic food manufacturers have emerged on the regional food markets. The first type includes cross-border mergers and acquisitions among the domestically owned food manufacturers. Initial signs are recognised in the dairy, meat or confectionery industries. The second type encompasses the production subsidiaries of the same foreign owner in two or three Baltic host countries. The beer, bakery, distilling industries and lately the meat industry demonstrate examples of the second type. Although these production facilities formally often stay separate entities, their production is harmonised and built into the coherent Baltic strategy of the foreign owner. There are various other methods to step from national to regional level in order to increase influence on the Baltic food markets. Licensed production of the neighbouring countries' local food brands or expansion through exporting under the favourable framework of Baltic Free Trade Agreement also make up relevant options. Regardless of the concrete form of implementation, one fact will inevitably apply to the entire region: *an accelerating consolidation and capital concentration will characterise the Baltic food processing in the future.*

*The third response* highlights the significance of *competitiveness*. Only efficient food processing companies will have a chance for corporate growth. Technology modernisation, managerial skills, marketing, distribution and logistic expertise, and financial resources are important preconditions of competitiveness. Foreign-owned subsidiaries apparently have a solid background to increase their efficiency. Domestically owned food processors will have to implement the same corporate reforms in order to succeed on the market.

*Competitiveness is the single most important condition of success on both the domestic and international markets.* Food processors need to be competitive in order to survive and increase power in the intensifying domestic competition. Similarly, Baltic food manufacturers need to be competitive also in international terms, as they will have to operate on the extremely challenging large homogenous food markets of the European Union within a few years.

Central and Eastern European experience indicates that type of ownership influences corporate performance (Jansik 2000b). Foreign investments have proved to be an appropriate source to improve competitiveness of the food processing sector. The changes introduced by foreign investors encompass a bundle of painful effects on the one hand and advantages on the other hand for three involved groups: (1) employees, (2) raw material producers, and (3) consumers. FDI truly sheds labour in order to increase productivity, but provides higher wages and secure employment. Foreign-owned food processors rely on domestic procurement, provided agricultural producers supply efficiently produced and high quality raw material. Foreign-owned companies contribute to higher food prices, but offer high value and wide assortment of foodstuffs to consumers. *Experience in Central and Eastern Europe so far confirms that benefits surpass costs or disadvantages of food industrial FDI.*

Estonia, Latvia and Lithuania have food processing industries of prestigious traditions and also of high potential and promising perspectives. The three food economies have suffered from structural crises and undergone fundamental changes including corporate restructuring and ownership reform. The need for modern and competitive food processing is extremely urging in the current international conditions. *Foreign investments* have shaped the profile and performance of food processing so far and they *can positively contribute to the progress of Baltic food processing also in the future.*

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**Annex 1. Comparative table of Estonian, Latvian and Lithuanian production of selected foodstuffs, 1990, 1995, and 1999**

unit	Estonia				Latvia				Lithuania			
	1990	1995	1999	1990	1995	1999	1990	1995	1999	1990	1995	1999
Meat and I category offal	159.8	41.3	22.6	234.4	29.7	16.1	431.5	93.2	69.8			
Sausages	48.1	32.8	29.3	58.1	34.4	20.1	76.2	42.5	35.8			
Fish including canned fish	233.2	99.5	111.2 <sup>a</sup>	334.9	53.1	67.7	230	12.4	28			
Canned fruit and vegetable	49 <sup>b</sup>	27.8 <sup>b</sup>	26 <sup>ab</sup>	54.2 <sup>c</sup>	5.7 <sup>c</sup>	1.6 <sup>c</sup>	34.8	3.5	3.8			
Juices	87.2	74.9	73.3 <sup>a</sup>	-	17.7	32.9	23.7	13.4	10.7			
Vegetable oil	-	3.6	7.2 <sup>a</sup>	14.1	0.5	9.8 <sup>a</sup>	1.2	0.5	10.7			
Whole milk	412.1	162.9	187.4	559.7	212.9	278.2 <sup>a</sup>	831	310	296.6			
Butter	29.4	12.1	7.6	43.6	6.5	6.8	73.9	32.4	26.2			
Cheese	16.3	8.6	9.2	24	9.4	8.1	26.3	17.2	35.1			
Flour	158.5	37.5	22.1	382	143	98	466.9	237.6	192			
Feed	n.a.	n.a.	n.a.	1,432	214	130.8	2,302	506	239.9			
Bread	151	99.7	72.2	206	145	109.3	332.1	214.9	150.6			
Sugar	-	-	-	230	87	57.6	158.6	105.2	121.2			
Confectionery	51.4	12.8	12.4	35	17	9.5	75.1	37	27.2			
Distilled alcohol	14.7	17.6	6.08	21.21	16.23	11.71	17.93	16.52	14.15			
Beer	76.9	49.96	96.32	87.38	65.28	93.85	150.17	109.27	183.43			
Mineral water	18.6	3.6	4.1	13.56	26.4	45.1	27.23	13.58	16.4			
Other soft drinks	46.2	43.5	66.6	75.93	24.2	40.7	104.61	25.18	52.46			
Cigarettes	n.a.	n.a.	-	5.2	2.1	n.a.	6.7	4.9	n.a.			

Sources: Estonia - Statistical Office of Estonia 1999b, p. 102; 1999e, p. 267; 2000c, p. 305.  
 Latvia - Central Statistical Bureau of Latvia 1998, p. 36-41; 1999b, p. 216-218, 224; 2000c, p. 92-93.  
 Lithuania - Statistics Lithuania 1999j, p. 274-276; 2000a, p. 79-80.  
 Notes: <sup>a</sup>1998; <sup>a</sup>Including juice; <sup>a</sup>Including mushrooms.

## Annex 2.

*Exchange rates of currencies used in the study, rates are expressed to 1 USD, 1995-2000.*

	1995	1996	1997	1998	1999	2000
EEK	11.45	12.03	13.88	14.06	14.67	16.98
LVL	0.53	0.55	0.58	0.59	0.59	0.61
LTL	4.0	4.0	4.0	4.0	4.0	4.0
FIM	4.37	4.59	5.19	5.36	5.51	6.41

Sources: Statistical Office of Estonia 1999d, p. 9; national central banks

## Annex 3.

*Number of employees in the Estonian, Latvian and Lithuanian food processing, 1992-1998.*

	1992	1993	1994	1995	1996	1997	1998
Estonia	..	24,699	27,953	26,343	25,390	25,566	24,222
Latvia	54,008	39,784	34,759	33,801	35,321	22,460	21,065
Lithuania	64,901	70,168	59,270	61,200	44,723	47,193	47,620

Sources: UNIDO 1997; national statistics

## Annex 4.

### Questionnaire

#### 1. General Information

- 1.1. What year did you invest? \_\_\_\_\_  
 1.2. To what country? \_\_\_\_\_  
 1.3. What is the name/address of the subsidiary? \_\_\_\_\_

#### 2. Internationalisation

In your company what is the foreign/domestic share of

	Finland	Estonia	Latvia	Lithuania	Other
sales revenues	%	%	%	%	%
employment	%	%	%	%	%

#### 3. Determinants of the Investment - Motivations and Obstacles

- 3.1. Why did you decide to invest into the Baltic countries? \_\_\_\_\_

3.2. In your investment to the Baltic countries the primary objectives have been the following markets (in order of importance, most important = 5, least important=1):

- markets of the target country  
 markets of the Baltic countries  
 Central and Eastern European markets  
 Russian market  
 Western markets

- 3.3. How do you assess the policy directions in the host country from an investor's point of view?

Estonia	Latvia	Lithuania	
			privatisation policy
			general economic policy
			taxation policy
			agricultural policy
			competition policy
			trade policy
			labour policy

5 very good  
 4 good  
 3 satisfactory  
 2 bad  
 1 very bad

3.4. Out of the following market factors what affected your choice of country to invest?  
Assess the listed factors with a grade from 1 to 5 (1=negligible factor, 5= important factor)

<b>Market factors</b>	<b>Estonia</b>	<b>Latvia</b>	<b>Lithuania</b>
Market size	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Growth Potential of Markets	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Access to the Rest of the Baltic countries	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Access to the Russian Market	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Proximity of Customers	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Presence of Other Rivals in the Markets	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Trade Impediments	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Indirect Trade Impediments	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Maintaining the Market Share of Parent Company	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Export Promotion of Parent Company	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
As a Part of the Company's Regional Strategy	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Potential EU Membership of the Countries	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Good Privatisation/Corporate Purchase Prospects	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Small Markets of Finland	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5

3.5. Out of the following cost factors what affected your choice of country to invest?  
Assess the listed factors with a grade from 1 to 5 (1=negligible factor, 5= important factor)

<b>Cost Factors</b>	<b>Estonia</b>	<b>Latvia</b>	<b>Lithuania</b>
Available Labour Force	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Skilled Labour Force	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Low Labour Costs	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Low Level of Other Production Costs	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Low Transportation Costs	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Access to Raw Materials	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Inexpensive Raw Materials	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Tax and Other Incentives Offered to Foreigners	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Low Taxation Level	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Generally Low Level of Expenditures	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Stability and Convertibility of Local Currencies	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Good Profit Prospects	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
High Technological Level of the Target Country	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
High Risks	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Other:	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5

3.6. Out of the following institutional factors what affected your choice of country to invest?  
 Assess the listed factors with a grade from 1 to 5 (1=negligible factor, 5=important factor)

Environment for Investments	Estonia	Latvia	Lithuania
Political Stability	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Economic Stability	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Favourable Legislation for FDI	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Restrictions Concerning Foreign Ownership Shares	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Restrictions Concerning Land Ownership	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Positive Attitude towards FDI	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Relatively Well-Developed Infrastructure	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Domestic Markets Protected by Import Duties	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Other:	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5

3.7. What have been the most important obstacles you faced while investing into the Baltic countries? Assess the listed factors with a grade from 1 to 5 (1=negligible obstacle, 5=important obstacle)

Obstacles	Estonia	Latvia	Lithuania
Bureaucracy and Red Tape	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Vague Legislation	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Lack of Foreign Language Command	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Lack of Information on the Target Countries	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Payment Patterns	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Underdeveloped Banking System	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Discriminative Rivalry, Lobbying Power of Domestic Competitors	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Corruption	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Illegal Activities, Grey Economy	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Other:			

#### 4. Market Position of Subsidiary

4.1. What is the market share of your subsidiary in the host country?

Estonia

Latvia

Lithuania

\_\_\_\_\_ %

\_\_\_\_\_ %

\_\_\_\_\_ %

4.2. What is your objective in terms of market shares within 1 or 5 years?

Estonia

Latvia

Lithuania

\_\_\_\_\_ %

\_\_\_\_\_ %

\_\_\_\_\_ %

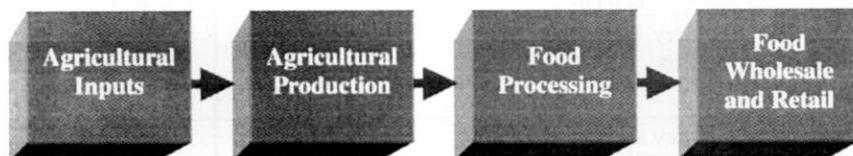
4.3. What are your expectations about consumption on the markets of your product (group) in the Baltic countries for the years 2000 and 2005 or after the anticipated accession to the EU? \_\_\_\_\_

4.4. Assess the following statements about competition environment on the grade from 1 to 5 (1=fully disagrees, 5=fully agrees)

Competition Environment	Estonia	Latvia	Lithuania
Competition is Fierce	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Competition is Lighter than in Finland	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Competition is More Intensive than in Finland	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Competition is Going to Intensify	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Foreign Firms Are the Most Important Competitors	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Local Firms Are the Most Important Competitors	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5
Companies Eluding Taxes and Import Duties Constitute a Serious Problem	1 2 3 4 5	1 2 3 4 5	1 2 3 4 5

4.5. Describe the Market Situation Briefly: \_\_\_\_\_

## 5. Position in the Food Supply Chain



5.1. What relations does your subsidiary maintain to the other components of the food supply chain? \_\_\_\_\_

5.2. What level of vertical coordination has been developed with raw material producers? \_\_\_\_\_

5.3. Does your company influence agricultural production or trade? \_\_\_\_\_

5.4. How do you plan to alter these connections in the future? \_\_\_\_\_

## 6. Type and Size of Investment

6.1. Type of Investment: What part of your investment(s) was/were realised as

Estonia	Latvia	Lithuania	
____%	____%	____%	green-field investment
____%	____%	____%	purchase of an existing company
____%	____%	____%	capital used to develop the purchased company?

6.2. What was the amount of investments in

Estonia: \_\_\_\_\_ million FIM    Latvia: \_\_\_\_\_ million FIM    Lithuania: \_\_\_\_\_ million FIM

## 7. Technological Development

7.1. In order to improve technological level, did you use

- Finnish technology
- technology from other country
- EU       other?

7.2. What was the share of Finnish technology in the value of development/investment?

Estonia: app. \_\_\_\_\_%    Latvia: app. \_\_\_\_\_%    Lithuania: app. \_\_\_\_\_%

7.3. On what area did you have to develop the purchased company most=7 and least=1 (order)

Estonia	Latvia	Lithuania	
□	□	□	production technology
□	□	□	marketing
□	□	□	logistics
□	□	□	hygienic requirements
□	□	□	attitude of management
□	□	□	trade relations
□	□	□	raw material procurement
□	□	□	other

## 8. Relations between Parent Company and Subsidiary

8.1. What does parent company offer to subsidiary? Assess the areas listed by using the attached grade.

Estonia	Latvia	Lithuania	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	finished goods
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	semi-finished goods
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	raw materials
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	technology
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	marketing services
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	management know-how
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	trade marks
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	other

5 very much  
4 much  
3 some  
2 small amount  
1 not at all

8.2. What does subsidiary offer to parent company? Assess the areas listed by using the attached grade.

Estonia	Latvia	Lithuania	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	finished goods
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	semi-finished goods
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	raw materials
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	technology
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	information on local markets
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	other

5 very much  
4 much  
3 some  
2 small amount  
1 not at all

8.3. Have you conducted internal trade with your subsidiary?

## 9. European Union

How do you expect the coming EU membership of the host country to influence the operation of your subsidiary and home-based (parent) company? \_\_\_\_\_

## 10. Future strategy

10.1. If you were to invest into the Baltic countries now, would you make your investment to the same country and same company according to your present view? \_\_\_\_\_

10.2. Are you planning to enlarge your subsidiary's operation in the target country?  
If so, in what ways? \_\_\_\_\_

10.3. Are you planning to narrow down or cease your presence in the Baltic countries?  
For what reason(s)? \_\_\_\_\_



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