LAPPEENRANTA UNIVERSITY OF TECHNOLOGY
Northern Dimension Research Centre
Publication 50

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PHARMACY INDUSTRY IN RUSSIA AND IN THE BALTIC STATES

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Lappeenranta 2008

ISBN 978-952-214-609-0 (paperback)
ISBN 978-952-214-610-6 (PDF)
ISSN 1459-6679

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Abbreviations

ASEAN	the Association of Southeast Asian Nations
BBN	Baltic Business News
CA	current account
CEE	Central East European
CIS	Commonwealth of Independent States
CMEA	Council of Mutual Economic Assistance
CPI	corruption perception index
DDD	daily defined dosage
DIY	do-it-yourself
EEK	Estonian kroon
EHIF	the Estonian Health Insurance Fund
EIU	Economist Intelligence Unit
EMU	European Monetary Union
ERDI	exchange rate deviation index
EU	European Union
EUR	Euro
EU25	member countries of EU excluding Bulgaria and Romania
FDI	Foreign Direct Investment
FIE	foreign investment enterprise
FMCG	fast moving consumer goods
GDP	Gross Domestic Product
GNP	Gross National Product
LTL	Lithuanian litas
LVL	Latvian lat
NAFTA	North American Free Trade Agreement
OTC	Over-the-counter
PhRMA	Pharmaceutical research and manufacturers of America
PPP	Purchasing Power Parity
PWC	Price Waterhouse Coopers
RUB	Russian ruble
SAM	the State Agency of Medicines (Estonia)
SM	the Ministry of Social Affairs (Estonia)
TE	transitional economy
UK	United Kingdom
ULC	unit labor costs
UNECE	United Nations Economic Commission for Europe
US	United States
USD/US$	United States dollar
VOAVA	Health Compulsory Insurance State Agency (Latvia) Veselības Obligātās Apdrošināšanas Valsts Aģentūra
VZA	State Agency of Medicines of Latvia (Zāļu valsts aģentģūra)
WHO	World Health Organization
WIIW	the Vienna Institute for International Economic Studies
WTO	World Trade Organization
ZCVA	State Medicines Pricing and Reimbursement Agency Zāļu cenu valsts aģentģūra

Foreword

The Northern Dimension Research Centre (NORDI) is a research institute run by Lappeenranta University of Technology. NORDI was established in 2003 in order to coordinate research into Russia and Eastern and Central Europe.

NORDI aims at increasing the knowledge concerning the Northern Dimension in the fields of economics and technology, gathering and coordinating information for international, national and regional bodies, co-operating with the international actors in the field, and increasing the co-operation and communication between the different units of Lappeenranta University of Technology. NORDI´s core areas of research cover many of the Northern Dimension's fields of cooperation and include Business & Economy, ICT and Innovations, Energy and Environment, Logistics and Supply Chain Management, and Natural Resources.

This study focuses on distribution of pharmaceuticals and especially on pharmacy industry in Russia and in the Baltic States. The present structure of the industry and some future scenarios from foreign investor's point of view are covered. In addition the business environment, economic development and legislative issues related to the pharmacy industry are shortly described.

I would like to thank Professor Tauno Tiusanen for the valuable feedback and discussions which gave me means and guidelines to study the Russian and the Baltic States markets. I also want to thank my coworkers for their continuous support during my writing process. I will express special thanks to Boris Karandassov for helping me with the Russian language material and to Tuukka Karhu who helped me to finalize the book.

Lappeenranta, June 2008

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1. Introduction

The collapse of the Soviet Union at the beginning of the 1990s created 15 new states. The development of these states from centrally planned to market economy created new opportunities for foreign companies. Today, especially retailing is growing fast in the post-Soviet countries offering an interesting topic for research.

Retailing was for a very long time a local business. Only lately, during the last couple of decades, internationalization of retail has started to take shape. In this process, price has become the most important tool in competition. It is said that consumer habits are becoming more and more universal.

However, there is no unified system of retailing in the global market. General stores dealing with “fast moving consumer goods” (FMCG) replace traditional grocery stores by offering a wide range of products in the so called “big box” outlets (super- and hypermarkets). This retail format is spreading internationally.

Previous “iron mongers” are everywhere replaced by big self-service “do-it-yourself” (DIY) stores, which also have a tendency to become big and international. Certain branches concentrate on designing. In clothing, Benetton, GAP, Hennes & Mauritz, etc, design and sell their branded goods in special stores internationally. IKEA, the Swedish furniture company, offers home decoration items internationally. In all cases in this category production takes place in cheap labor countries, but retailing takes place mainly in the rich part of the world under the name of the special retailer.

In the system of central planning, a sellers’ market existed. Demand was very poorly met by supply. In the post-Soviet era, customers have freedom of choice, and thus, supplies have improved essentially. In the early years of transition negative economic growth limited purchasing power. However, in the second half of the 1990s living standard started improving in most post-Soviet states. Therefore, interest among Western retailers in getting involved in post-Soviet states is increasing.

In certain spheres supply is limited by the local public sector. In Nordic countries, there is a long tradition of limiting the trade of alcoholic beverages. Every state regulates the trade with pharmaceuticals. In the former case, the aim is to limit harmful side-effects of alcohol consumption, while in the latter the goal is to hinder drug abuse. Obviously, pharmacy

business will always be regulated. Therefore, attention is paid to regulations concerning this branch in countries under review in this study.

Health care with affordable costs to all citizens was one of the major issues in the communist ideology. However, this branch was permanently underfunded in all communist societies. Thus, life expectancy decreased in the 1970s and 1980s in centrally planned economies. Treatment and medical supplies were far from optimal. Special hospitals were available for political leaders, but the system of general medicare failed.

Thus, it is understandable that people in all post-communist societies have started to pay attention to their physical condition after the systemic change. New insurance schemes have been developed according to Western models. Imported foodstuff supplies allow better diets in comparison to the recent past. Demand for pharmaceuticals is expanding rather rapidly.

This study concentrates on four post-Soviet states on the Baltic Sea: Russia, Estonia, Latvia and Lithuania. The first one is by far the biggest post-Soviet state and a member of CIS (Commonwealth of Independent States) which comprises 12 former Soviet republics. The Baltic States (Estonia, Latvia and Lithuania) are all relatively small national economies and former Soviet republics. The three Baltic States joined the EU when the "Eastern enlargement" of the Union took place in 2004. Thus, Estonia, Latvia and Lithuania have no independent trade policy rights as members of EU. Russia can protect her home market on individual country basis.

All four countries under review have experienced a strong economic boom in the early years of the 21st century. Therefore, the region chosen for this study provides an interesting playground for international companies active in health care business. Because of a large population and the oil price boom on the world market Russia offers special incentives for Western companies to enter the market.

The aim of this study is to determine the level of internationalization of pharmacy markets in Russia and the Baltic States, and to analyze the key success factors and possible future developments of this industry in these countries. This information will give guidance for companies willing to establish their operations in these markets.

2. Introduction of Countries

Countries included in the study, Russia, Estonia, Latvia and Lithuania, were all a part of the former Soviet Union. Thus, they all share a communist past. This past has had a great effect on their economic development as well as on the development of other sectors of society.

The communist countries isolated themselves from rest of the world. This so called Iron Curtain divided Europe into the Eastern side, the centrally planned communist economies, and to the Western side, the decentralised market system economies, during the Cold War. The communist side had its own "trading bloc", the Council of Mutual Economic Assistance (CMEA), established in 1940s and the Western side established a Customs Union (The European Economic Community) in 1957 and soon after that a European Free Trade Area. These two Western trading blocs started to merge in 1973 and in 1993 after expanding transformed itself to the European Union (EU). (Tiusanen, Kinnunen & Kallela 2004, 3-4) The CMEA ceased to exist in the late 1980s and soon after that the Soviet Union collapsed in 1991.

The system of central planning existed in the former Soviet Union for over seven decades. This system applied the so called "Marxists growth model". The model divided industry into two categories. The first one produced input goods like steel, machines, tractors, and so on, and the second one produced consumer goods. The idea was that permanent economic growth would be achieved by promoting the first category in central planning, and satisfying consumer needs was only a secondary issue. (Ylä-Kojola 2006, 9)

The Soviet healthcare system was based on principles developed by Nikolai Semashko. From 1920, the healthcare system focused on epidemic control and prevention of infectious diseases. In 1937, the social funds were closed down and hospitals, pharmacies and other health facilities were transformed under the district health management. The whole healthcare system was centrally planned: all healthcare personnel were employees of the state, which supplied the material needed and paid salaries. By 1941, the healthcare system had succeeded to cut down infectious diseases and was able to serve the need caused by World War II. The system continued to focus on the control of infectious diseases and delivery of health care through the work place. The main policy orientation of the Ministry of Health, which worked under strict regulation by the Communist Party, was to increase the number of hospital beds and medical personnel. They worked to get infectious diseases under control. (Tragakes and Lessof 2003, 23-25) All healthcare services were free-of-charge and everybody had access to

them, except to services arranged for the ruling elite. There were separate outpatient clinics, hospitals and spa institutions for Communist party officials and representatives of the government and their families. In these institutions the treatment and facilities were better and they were also better supplied with pharmaceuticals. (European Observatory on Health Care Systems 2001, 8)

When chronic diseases started to increase, during 1960s, the government chose to suppress data and to create more beds rather than change their approach. Only in mid-1980s, the Ministry of Health announced that it will concentrate on developing preventive medicine and on improving health care facilities. As the Soviet era considered doctors and nurses as part of the non-productive sector of society, their wages and working conditions were poor. Also, the quality of education was poor. (Tragakes and Lessof 2003, 23-25) Poor wages also encouraged accepting bribes. Even though the health care was free in principle, the wealth of the patient affected the level of treatment he or she got. Also, medicines were under short supply and doctors took bribes for both materials and services. (Euromonitor International 2006)

The pharmacy industry went through nationalization and systemic changes when the centrally planned communist system was adopted. In early Soviet Russia at the beginning of 1920s, bureaucrats in Farmatsentr, the agency in the Supreme Council of the National Economy (VSNKh) had jurisdiction over the pharmaceutical industry and pharmaceutical trade. Supervision over the establishment and operating of pharmacies, dispensing, the staffing of pharmacies and local government pharmacy posts, and purchase and distribution of medicines were under jurisdiction of the Pharmacy Department of the Commissariat of Health. These two bodies together with other central pharmacy officials drafted plans, furthered nationalization and improved the administrative mechanism in the center and the provinces. Private ownership of pharmacies, drug stores, warehouses and pharmaceutical factories was denied. Activity was highly bureaucratized; the number of officials and committees rose, and financing and supply was centralized. This caused shortages of medicines, pharmacists, and money. (Conroy 1994, 421-422)

As Soviet Union collapsed at the beginning of 1990s the four countries under review started to transform from centrally planned economy to market economy. In this process also pharmacies were privatized rapidly. This process was pretty chaotic although pharmacy legislation was established early on. However, the infrastructure to enforce it was still missing. In Eastern Europe pharmacy branch has improved a lot and today most community pharmacies have a bright, modern and professional appearance. (Mason 2004, 537)

2.1 Russia

Russia was the biggest country in the Soviet Union. It accounted for 60 % of the total output as well as 60 % of the total capital stock, and 55 % of the total labour force. Moreover, about three quarters of the Soviet territory and most of the material riches were inherited by Russian Federation. All this gave Russia good preconditions for transition. (Tiusanen & Keim 2006, 4-5) After the collapse of the Soviet Union which took place on December 1991, the Russian Federation, Belarus and Ukraine established the Minsk Agreement on the Commonwealth of Independent States (CIS). (Tiusanen & Jumpponen 2004, 7) Russia also applied for membership of the World Trade Organisation (WTO) in 1993. The accession process has been going on since. Russia is keen to access WTO, but only according to standard terms. (Russia and WTO 2008)

Russia is located in Northern Asia and Europe. With its total area of 17 075 200 sq km, Russia is the largest country by land in the world. It is bordered by Azerbaijan, Belarus, China, Estonia, Finland, Georgia, Kazakhstan, North Korea, Latvia, Lithuania, Mongolia, Norway, Poland, Ukraine, the Artic Ocean and North Pacific Ocean. Russia has a lot of natural resources including oil, natural gas, coal, minerals, and timber. (CIA The World Factbook 2007) A map of Russia is shown in picture 1. Russia's capital city is Moscow with 10 406 578 citizens. 73,3 % of the total population of 141,3 million lives in cities. (UNECE 2007, 82-83)

Picture 1. Map of Russian Federation (Lonely Planet World Guide)

Russia's economy has been growing since the financial crisis in 1998. It has achieved an annual average growth of 6,7 % from 1998 to 2006. High oil prices and a relatively cheap ruble have generally made this growth possible, but after 2003 also consumer demand and investments have affected the growth significantly. Russia's GDP at PPP in 2006 was 1 415 342 EUR mn and per capita in PPP 9 930 EUR, which is the lowest figure among countries under review. The growth rate of GDP was 6,7 % in 2006. (WIIW 2007) GDP divided as follows: 58,2 % services, 36,6 % industry, and 5,3 % agriculture. Russia has been able to prepay all Soviet-era sovereign debt to Paris Club creditors and the IMF. Foreign debt has also decreased. Russia has also made remarkable reforms in the area of tax, banking, labor, and land codes. This has had a positive effect on foreign direct investments directed to Russia. Russia is still dependent on its natural resources. Over 80 % of its exports come from oil, natural gas, metals, and timber. (CIA The World Factbook 2007)

2.2 Baltic States

The Baltic area was considered a relatively wealthy part of the Soviet Union. It was rapidly industrialized and immigration from other parts of the Soviet Union grew. Following fast industrialization, the Baltic States became very dependent on energy and metal imports from other Soviet republics and on inter-republic trade with the Russian Federation. Also, most of the exports went to CMEA members. (Tiusanen 1995, 67) After the breakdown of CMEA and the Soviet Union, the Baltic States refused to sign the agreement to join CIS, because they did not want to take part in any post-Soviet constellation. However, the Baltic States became EU-members in May 2004 together with Poland, the Czech Republic, Slovakia, Slovenia and Hungary. (Tiusanen & Jumpponen 2004, 7) The next step for the Baltic States is to join the European Monetary Union (EMU) and further strengthen their integration to Europe.

2.2.1 Estonia

Estonia is located in Eastern Europe. It is bordered by the Baltic Sea, Gulf of Finland, Latvia, and Russia. Total area of Estonia is 45 226 sq km. Estonia's natural resources are oil shale, peat, phosphorite, clay, limestone, sand, dolomite, arable land (12,05 %), and sea mud. (CIA The World Factbook 2007) A map of Estonia is presented in picture 2. Estonia's capital city is Tallinn with 397 150 citizens. 69,4 % of the total population of 1,3 million lives in cities. (UNECE 2007, 30-31)

Picture 2. Map of Estonia (Lonely Planet World Guide)

Estonia is the most westernized of the Baltic States. The three main trading partners, Finland, Sweden, and Germany, have a great influence on Estonia. Estonia is a member of WTO and EU and pegs its currency to the euro (CIA The World Factbook 2007). Estonia was to join EMU at the beginning of 2007, but because of high inflation it had to postpone its accession (EIU 2007a). In EIU County Report from September 2007, it was stated that the Estonian government will be accelerating the harmonization of excise duties to be able to make the Maastricht inflation target achievable by 2010 (EIU September 2007, 3). In 2006 Estonia's total GDP at PPP was 21 429 EUR mn and per capita at PPP 15 950 EUR, which is the highest figure among the countries under review. The real growth rate for GDP was 11,2 % in 2006. (WIIW 2007) It was divided between sectors as follows: 68,6 % services, 28 % industry, and 3,4 % agriculture. (CIA The World Factbook 2007)

2.2.2 Latvia

Latvia is geographically the central Baltic State and is bordered by the Baltic Sea, Estonia, Lithuania, Belarus and Russia. Its total area is 64 589 sq km. Latvia's natural resources are peat, limestone, dolomite, amber, hydropower, wood, and arable land (28,19 %). (CIA The World Factbook 2007) The map of Latvia is shown in picture 3. The capital city is Riga with 727 578 inhabitants. About 66 % of the total population of 2,26 million lives in urban areas. (UNECE 2007, 56-57)

Picture 3. Map of Latvia (Lonely Planet World Guide)

Latvia's GDP has been growing in the last several years. Average annual GDP growth has been over 7 %. The state still holds remarkable stakes in a few large enterprises, but the majority of companies, banks, and real estate have been privatized. Latvia joined WTO in February 1999 and was accepted to EU in May 2004. The total GDP at PPP was 29 971 EUR mn and per capita at PPP 13 100 EUR in 2006. The growth rate for GDP was 11,9 % in 2006. (WIIW 2007) GDP was divided to sectors as follows: services 70 %, industry 26,3 % and agriculture 3,7 %.

2.2.3 Lithuania

Lithuania is located in Eastern Europe and is bordered by Latvia, Belarus, Poland, Russia (Kaliningrad) and the Baltic Sea. Lithuania is geographically (total area 65 200 sq km) and by population (about 3,5 million) the largest of the Baltic States. Lithuania has only few natural resources: peat, arable land (44,81 %) and amber. (CIA The World Factbook 2007) Picture 4 shows a map of Lithuania. The capital city is Vilnius with 541 291 inhabitants. 66,7 % of Lithuania's population live in urban areas. (UNECE 2007, 60-61)

Picture 4. Map of Lithuania (Lonely Planet World Guide)

Lithuania has had more trade with Russia than the other two Baltic States. It has grown rapidly since Russia's financial crisis in 1998. However, today, Lithuania's trading with the west has been growing. Lithuania joined WTO and EU in 2004. The privatization is nearly completed and because of that foreign direct investment declined in 2006. (CIA The World Factbook) The total GDP at PPP was 45 967 EUR mn and per capita at PPP 13 540 EUR in 2006, gaining a growth rate of 7,7 % (WIIW 2007). GDP by sector composed as follows: 61,2 % services, 33,3 % industry, and 5,5 % agriculture. In Lithuania service sector's share of GDP is more moderate than in the other two Baltic States in which the equivalent figures are close to 70 %. However, in Russia the share of service sector of GDP is clearly the lowest remaining in under 60 %. (CIA The World Factbook)

3. Retail Internationalization

In the past two decades retailing has been internationalizing strongly. Today many retailers are powerful multinational organizations. They make a major contribution to the gross domestic product and employ a large number of people. (Fernie, Fernie & Moore 2003, 3) The biggest retailer and corporation in the world is Wal-Mart. Its turnover is on the same level as the gross domestic product of Poland which has almost 40 million inhabitants. (Tiusanen & Malinen 2006, 8)

One of the most significant trends in today's business environment is an increase in the internationalization of firms and markets. More and more companies are facing the situation where the international expansion does not only represent an opportunity to achieve further growth, but has also become a necessity when the international competition is tightening even in domestic markets. The topic has attracted enormous attention from researchers, particularly in Europe where the internationalization of retail has been faster than in United States. (Vida & Fairhurst 1998, 143)

Internationalization can be seen in many of the operations retailers perform, for example sourcing goods for resale, the operation of shops, the use of foreign labor, the adoption of foreign ideas and the use of foreign capital. (Dawson, Larke & Mukoyama 2006, 1) However, retailers are relative latecomers in truly international integration. In 1995 only five of the top 100 global retailers generated more than 50 % of their sales in foreign markets and only 56 of the top 100 operated outside their home market. (Leknes and Carr 2004, 30)

Retailers' primary function is to provide consumers with a range of products for potential purchasing. Today retailers are increasingly sourcing goods internationally. Some retailers have only a few products which are sourced within the country in which they have their main store operations. Another change has been the usage of middlemen in sourcing. Today, retailers are buying more products without middlemen, directly from the manufacturer. The internationalization of sourcing is usually the first step of a retailer's internationalization process. (Dawson et al. 2006, 4) Internationalization of shops is the most evident form of retail internationalization. The retail sector is a very diverse sector and therefore also has great variety in activities. (Dawson et al. 2006, 12-14)

Retailing is highly segmented field. The features of the operational environment - the value-chain, consumer behavior, and geographical barriers – differ greatly between, for example,

grocery retailing, clothing sector, furnishing sector and Do-it-yourself (DIY) sector. From these sectors the grocery retailing is the most concentrated: in 1999 12 largest groceries in Europe had 32 % share of the total market and is forecasted to rise to 60 % by 2010. In the other end, the clothing sector is the most fragmented one. The market share for top 10 companies in Germany, UK, France and Italy remained under 25 % in 1997. (Leknes & Carr 2004, 30)

Even thought retailers come in very different packages - range is from Zara to Apple to Armani to Tesco - they share some common characteristics. Their growth has been consistent and they have been able to understand their customers better than ever before. (Thomassen, Lincoln & Aconis 2006, 191-192)

The internationalization of retail differs greatly from the internationalization of manufacturing. One of the most important differences between internationalization of manufacturing and retailing is that you can patent a new product, but you cannot patent a retail format or operational procedure. This makes first mover's advantage very valuable in retailing. Thus, new ideas will be copied and that is why it is necessary to keep improving your methods to be able to maintain a competitive advantage. The phenomenon has become more evident with the internationalization of retail businesses. New ideas can be widely used around the world, as the large retailers open more subsidiaries in new markets. (Fernie et al. 2003, 324)

Other characteristics for international retail are that medium and large retailers usually operate through many outlets, for retailers the market is always local, they have a relatively large number of suppliers, the retailer sells services not items, the cost structure is very different when compared to manufacturing, in retailing there is a large number of customers and by that large number of transactions. (Dawson et al. 2006, 17-23) Retailers also usually withdraw from international markets when experiencing difficulties in home markets while manufacturers often act in an opposite way. (Dawson et al. 2006, 210)

3.1 The Retail Environment

The changes taking place in a retail environment greatly depend on two issues, changes in consumer environment and changes in government actions. (Fernie et al. 2003, 16)

The growth of the economy and the nature of consumer savings are affected by the structure of a country's population and its growth rate. These demographic trends affect retail trade through changing customer needs and wealth. Demographic trends also have an effect on labor markets. The rise of high-tech industries and the service sector has lead to women participating more in the workforce, more part-time/causal work and the rise of self-employment. Because of these changes consumers' values are also changing. Today's average consumer is relatively wealthy and "young" in attitudes towards health, sport and fashion. (Fernie et al. 2003, 18-22)

Retailers must be physically present at the market and thus are sensitive to variations in consumer behavior and segmentation. Consumer tastes, buying behavior and spending vary greatly through the international market place which makes the internationalization extremely challenging. (Leknes & Carr 2004, 30)

Government regulations often affect the operation of retailers. On a regional level important issues are operational legislation related to health and safety at work, hours of opening and employment laws. Due to internationalization legal frameworks across national boundaries have emerged. European Union directives are a good example of this. These regulations deal with fairness of competition and with retail planning policies. (Fernie et al. 2003, 35)

3.2 Motives for Internationalization

There are several of reasons why retailers establish an international strategy. Home-market growth may be, in many cases, inhibited by market factors or by legislation limiting further expansion, which is the case more often with European companies. Also the lack of market growth, especially for food retailers, has pushed retailers to new markets as consumer spending priorities in home-markets moves from foods to other areas like travel, technology in the home and entertainment. Other remarkable push factor, especially in Western Europe, is the dramatically slowed down population growth. This so called "fear factor" – watching competitors to enter new markets and continue to grow while one is struggling at the home-market – is a growing element. Also the desire to be the first mover draws retailers to new markets. To be the first one at the market and gain competitive knowledge and market experience can translate into strength in overseas markets, long-term advantage and sizeable permanent profit stream. (Seth & Randall 2005,88)

Figure 7 shows the traditional push and pull factors of internationalization. Inhibitors and facilitators which influence the nature of strategic decisions have been added in the middle.

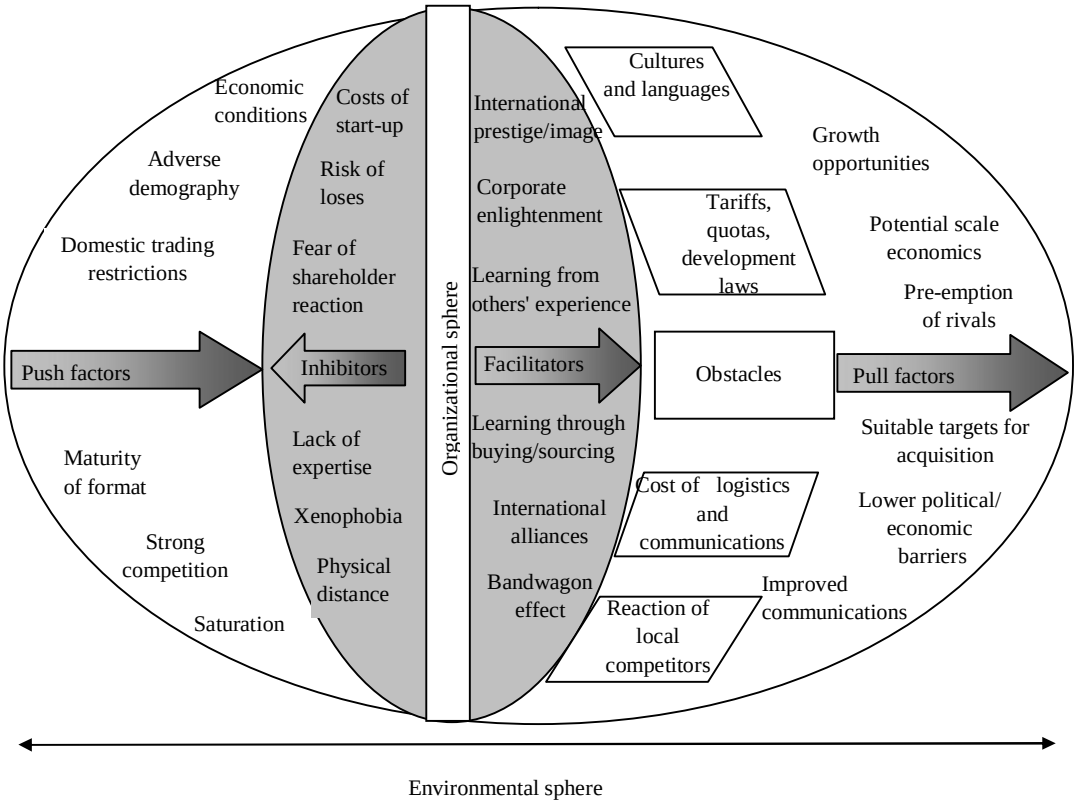

Figure 1. Driving forces of internationalization (Fernie et al. 2003, 327)

At the beginning of retail internationalization, push factors had more influence, especially in Europe, where home markets are usually quite small or regulations are tight. Retailers affected by pull factors differentiated. Their brand image has been strong and they were either category killers or specialist clothing retailers. (Fernie et al. 2003, 326)

Retailers are seeking to gain profits from providing services to the local market. They are trying to gain a share of the spending of local consumers whether or not retailers are growing through acquisition or through organic growth. (Dawson et al. 2006, 210)

3.3 Direction of Growth

At the early stages of internationalization, retailers tend to avoid risky strategies and thereby favor markets which are geographically or culturally close to their home market. Neighboring countries are the most popular targets at the beginning. As retailers gain experience they

expand their activities to other countries. However, the main players try to have a presence at the major trading blocks (NAFTA, EU and ASEAN) and thereby seek opportunities at that special area. (Fernie et al. 2003, 328)

Even today there are still limitless opportunities for international expansion. There are number of countries where future prospects look attractive. Location focus is changing, as earlier the America was seen as the land of supermarkets and shopping now the east is as, or even more, attractive destination for market entry. It is self evident that the big, developed markets offer the most opportunities. However, the interference of government, which is especially the case in Europe, has huge influence on the available opportunities. This keen interest of governments on retailing, especially food retailing, has occurred in Europe and US markets, and is now happening in Japan, India and China. However, entry into smaller, emergent markets may be more welcome, have lower level of competition and smaller risk. Beginning the international expansion from the smaller markets gives retailer the opportunity to learn what is different from home-markets, to find out where to be flexible and to give managerial confidence. (Seth & Randall 2005, 87-88)

3.4 Method of Market Entry

As internationalization of manufacturing, a retailer's internationalization also starts from low-cost and low-risk operations and expands to larger direct investments. Low-cost and low-risk operations used by retailers are franchising and minority shareholding. They are good ways for a retailer to collect experience about a new market environment before larger investments. (Fernie et al. 2003, 329) The next two chapters examine the basic concepts of franchising and foreign direct investment in the context of retail internationalization in transitional economies.

3.4.1 Franchising

Franchising can be defined as "an operation where a company establishes a contractual relationship with owners of a separate business which operates under the franchisor's name and a specified manner to manufacture or market the product or service." (Luostarinen & Welch 1990, 72) In practice this means that the franchisor provides know-how, equipment, materials, brand name, patent and services or some combination of them to the franchisee in a standard package. The franchisee pays royalties for these contributions and brings in capital investment, local knowledge, entrepreneurial spirit, and managerial oversight. The minimum length of a contract is usually five years, because it takes time to get the business profitable.

The contracts are usually automatically renewed. (Luostarinen & Welch 1990, 74) The basic concept of franchising is presented in figure 8.

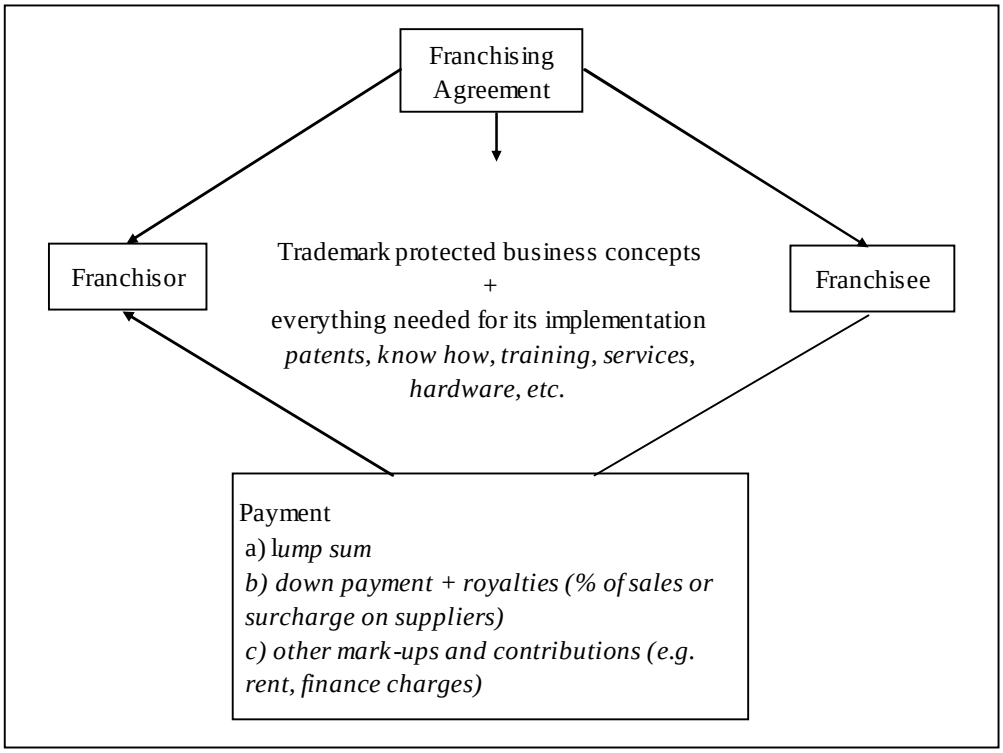

Figure 2. Franchising Package (Luostarinen & Welch 1990, 75)

According to Luostarinen and Welch (1990, 72) three main types of franchising can be identified. The first type, service franchising, is used by service companies. Fast-food, hotel and restaurant chains are good examples. The second type, distribution franchising, is used by manufacturing companies and retailers, and the third type, industrial franchising, is used by holiday house/cottage builders among others.

Retail franchising has reached domestic saturation in many western countries, but the emerging markets are still quite untapped. In these new markets franchising has been established primarily during the last 15 years. Emerging markets hold a significant potential for economic growth and thus offer enormous opportunities for business. (Welsh, Alon & Falbe 2006, 131)

The advantages of franchising are the speed of market entry, the availability of local management knowledge and expertise, and the low costs of entry. The problem of this method is to find a large enough amount of qualified franchisees. It is very important that the franchisees conform to the strict rules in terms of merchandising, brand image and store design. Niche retailers with a strong brand image use a lot of franchising as a method of

internationalization. (Fernie et al. 2003, 329) Special advantages for franchisers in emergent markets are the growing middle class, relatively untapped markets, in most parts highly populated cities and growing demand for western-style goods and services. Franchising gives the company an opportunity to enter new markets with relatively low financial investment and risk, and promotes political and cultural acceptability. However, rapidly changing regulatory environment can cause challenges. Also repatriating royalties, protecting copyright, terminating contracts and local imitations can cause problems. (Welsh, Alon & Falbe 2006, 135-136)

Franchising lowers the financial risk for franchisor, as the franchisee is usually expected to make a substantial investment in the business. This makes the franchisee more motivated to maximize revenues, operate effectively and protect the franchise brand. However, to monitor managers is one of the main issues in franchising. Especially in emerging markets the issues of monitoring managers, resource scarcity, and risk reduction must be taken into consideration as the geographical and cultural differences are significant. Master franchising has been one of the main franchising methods used when entering emergent markets through franchising. (Welsh, Alon & Falbe 2006, 132)

Konigsberg (1996) separates five different methods of franchising: direct unit franchising, direct subsidiary franchising, master franchising, joint venture franchising, and mixed type of franchising. Direct unit franchising is the only method were the franchisor has direct contracts with all the franchisees in the target country. In direct subsidiary franchising, master franchising and joint venture franchising the franchisor has some type of unit present in the target market (wholly owned subsidiary, master franchisee or joint venture establishment). Mixed type of franchising is some type of combination of the previous methods.

In master franchising franchisor chooses a master franchisee that operates the franchising business in a certain agreed area and under certain rules agreed in master franchising agreement. The area can be a part of a country, the whole country or even a few similar countries. Master franchisee can have, depending from the agreement, franchised outlets and outlets owned by the master franchisee. (Konigsberg 1996, IX.I.1) The principle of master franchising is shown in figure 9.

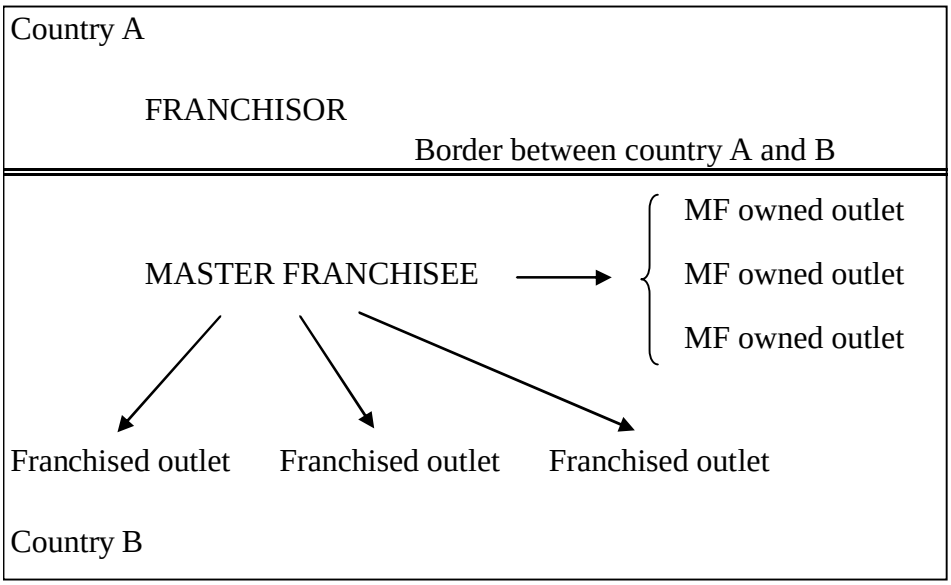

Figure 3. The basic principle of Master Franchising (Konigsberg 1996, IX.I.1, modified)

Master franchising is suitable to use when franchisor has not enough financial resources to franchise directly, franchisor has no necessary personnel to handle the every day business activities in the target country, or business practices differ greatly between home and target market. (Konigsberg 1996, VI.I13-14)

Advantages of master franchising are that it minimizes the need of financial resources and management personnel when compared to direct franchising. The need for fewer resources also lowers the financial risk in case the entry fails. Also the knowledge of master franchisee will be advantage when entering very different markets. The difficulties that master franchising can include are the loss of control, the financial returns may be smaller when compared to direct franchising, the entire system of the specific area is affected in case the master franchisee fails, and in case the franchisor wants to take control over the system and the master franchisee owns the property it can cause problems when terminating the agreement. (Konigsberg 1996, VI.I14-17)

Retailers and fast-food chains are probably the most well known users of franchising. One of the most famous ones is McDonald's. In 1990 it established its first franchise in Moscow and got a tremendous welcome from Russian people and press (Welsh, Alon & Falbe 2006, 131). In Poland, which it entered in 1992, McDonald's used subsidiary franchising and already in 1998 the subsidiary franchisee, McDonald's Polska, had 77 own stores and 22 sub-franchisees. (Tiusanen & Kellens 2000, 72) McDonald's has used quite often subsidiary

franchising as a entry method to new markets. Its strategy has been that the most potential sites in biggest cities in that particular country, where the risks are lower, are owned by the subsidiary franchisee and other outlets are operated through sub-franchising deals. This way the higher risk in smaller cities with smaller market area is divided with the sub-franchisee.

3.4.2 Foreign Direct Investment

In the era of central planning all assets were in the hands of the public sector. Economic reforms in the last two decades of communism allowed small-scale private initiative, but the big bulk of companies was managed by the state administration via the plan. Therefore, after the systemic change all post-communist countries were in the hurry to privatize assets, in order to be able to allocate resources via capital market. Stock exchanges were established in all transitional economies and the banking sector was westernized.

No unified scheme of privatization was established in TEs. Part of the assets were sold and another was given almost free for local citizens. The whole process was extremely complicated and is not discussed here in detail.

It suffices to state here that three TEs sold almost all post-communist assets in free bidding. These TEs were Estonia, Hungary and German Democratic Republic (the former East Germany). The latter is hardly referred to in studies on TEs, because it disappeared from the map after German unification.

Estonia and Hungary have been successful in attracting foreign investment. One of the reasons for that were their privatization processes, during which many foreign companies acquired assets in these two TEs.

Russia was especially restrictive in allowing foreign participation in her post- Soviet privatization process. Rather strict rules were implemented in the sphere of mining and financial institutions. Therefore, the involvement of foreign capital in the post-Soviet market of Russia was limited. Certain liberalization of the rules has taken place in the second decade of Russian transition, but foreign involvement has remained more modest in Russia in comparison to the TEs which now are members of the EU.

In the second decade of post-communism, there are hardly any state-owned assets on sale in TEs. Many industrial outlets built up in the communist era were in such a bad shape that

nobody was willing to acquire them. In retail trade international companies were not eager to enter the TE-region in the early period of transition because of low local purchasing power. In the second half of the 1990s economic growth in TEs resumed attracting also market-seeking investors.

Foreign direct investment (FDI) is defined as a strategic investment. This means that the investor is looking for decision making power in an overseas business. Portfolio equity investors are not looking for dominance, but for potential dividends and increasing of the share value of the company they put their money in. (Daniels & Radebaugh 2001, 11-12)

There are three different ways of foreign direct investment (FDI): acquisition, greenfield investment, and joint venture. In the internationalization of retailing acquisition and greenfield investment are used more commonly. (Fernie et al. 2003, 331)

In acquisition, a mother company establishes its operations abroad through buying an existing company from the target market. Advantages of this operation are its rapidity of entering new markets, and already established distribution channels, customers and market share. Lead-time and pay back periods are also shorter than in greenfield operation. A company can also benefit from the existing personnel, but it can also cause problems like layoffs. Other problems include the lack of good targets for acquisition and difficulties in integrating two separate organizations with different customs and cultures. (Luostarinen & Welch 1990, 164-165) In retailing, big food retailers often use acquisition because it is a faster way to get a large enough market share (Fernie et al. 2003, 331).

In greenfield investment the mother company establishes its operations abroad through building a unit from scratch. Greenfield is a good choice when the product has some very specific demands, the product technology is the company's competitive edge and cannot be compromised when moved to existing facilities, the production process technology is the special strength of the firm and no equivalent firms can be found or it is hard to transfer, the incentives are available only in certain geographical area, or it is important to be near to raw material source or to some other production factor. (Luostarinen & Welch 1990, 165-166) This is a strategy suitable for niche retailers and category killers. Greenfield investment is also used when a company expands to neighboring countries. (Fernie et al. 2003, 332)

FDI may take place even if the foreign investor is not a 100 % owner of the foreign investment enterprise (FIE). It is enough to the strategic investor to have a decisive say in the FIE management.

The term “joint-venture” is applicable to international business deals which see collaboration between enterprises based in two different countries. Both will contribute to the company, in which ownership and control is shared. Capital contribution of the foreign partner (or partners) is classified as FDI. In this case local partner normally brings in knowledge of the host country environment.

In the early period of transition, some spectacular acquisition deals were made, especially in car manufacturing branch. Fiat bought a factory in Poland, Volkswagen another in the Czech Republic and Renault one unit in Romania.

In the service sector, many hotels and restaurants were sold to international companies in transitional economies. However, the most striking acquisition deals in post-communist countries were made in the banking sector, in which Western financial institutions now dominate the scene in TEs now members of the EU. In the TEs’ “post-privatization period” acquisition options are not as abundant as in the 1990s. However, this does not mean that acquisitions have become impossible in TE-region. Foreign companies can buy businesses from each others in TEs.

In 2005, Carrefour, the French retailer, gave up its operations in the Czech Republic and Slovakia via an asset swap with Tesco (UK). Through the deal Tesco received 11 outlets in the Czech Republic and 4 stores in Slovakia valued at €190 million from Carrefour. In exchange, Carrefour received 6 stores and 2 sites in Taiwan valued € 132 million from Tesco. This deal made Tesco the leading retailer in Slovakia and the fourth largest in the Czech Republic. Tesco strengthened her position essentially in the TE-region due to this very interesting asset swap. However, Tesco remained still behind Metro, her German competitor (the second biggest European retailer after Carrefour) in CEE-group of countries (Poland, Hungary, Slovakia, the Czech Republic). (Tiusanen 2006, 58-59)

Also the Dutch retail giant Ahold (the third in Europe) bought stores from its western competitor Julius Meinl (Austria) in the Czech Republic. This purchase included 56 supermarkets. However, Ahold does not have as strong position in other CEE-countries as Tesco and Metro. (Tiusanen 2006, 59)

Greenfield options are permanently available for international companies operating in the TE-region. In many cases establishing a new unit was the only alternative in real terms during the early years of transition. For example, Pepsico and Coca-Cola started creating new bottling plants from scratch in all TEs, because it did not make sense to acquire old-fashioned

capacities after communism. With that method, modern up-to-date production units were established. People were just waiting for the products which were well known in beforehand. Thus, achieving a reasonable market share was just a matter of time.

In retailing, a revolutionary development has taken place in a very short time in TEs. In the new EU member states, a relative saturation of fast moving consumer goods (FMCGs) supply has been reached. The expansion of "big box" shops (super- and hypermarkets) cannot continue in the same speed as in the early years of the 21st century. At the same time, Russia still offers plenty of potential for further growth of FMCG sector.

Consumer durables and consumer electronics still have relatively high prices in all TEs. It means that competition is far from perfect, which offers plenty of possibilities for newcomers. Consumer habits are obviously changing with increasing living standard. It can be assumed that healthy food and other products of personal care sector still have plenty of growth potential. Western companies have obviously taken this fact into consideration.

Thus, FDIs in TEs are likely to increase in the service sector. At the same time, some FIEs have left TE region because of increasing price and wage levels. From the point of view of labor intensive activities TE-region is not necessarily the most attractive part of the world. However, Eastern Europe, especially Bulgaria, is still cheaper production location than Western part of the continent.

3.5 Degree of Adaptation to New Markets

The approaches to adaptation vary in retailing. Adapting to local conditions and local tastes and constrains is important for many retailers. The adaptation makes the company more attractive to the customer as the retailer meets more closely the local cultural demands. Also developing local management is a key factor when transferring corporate culture across borders and when learning to understand the new market. (Simpson & Thorpe 1999, 46)

The degree of standardization is high among category specialists, brand differentiated niche players, mass merchandisers, and hypermarket operators. They all usually want to create a united picture of their stores around the world. There can be some adaptation in products and offerings. Also communication and advertising do usually need adaptation to work in different markets. (Fernie et al. 2003, 334-335)

IKEA had to make its furniture larger to meet the needs of the American consumer and McDonald's had to alter its assortment when it entered India, but still they managed to keep their brand unified world wide.

Retailers today understand customers maybe better than anybody before. However, they have left the most important factor, brands, to suppliers to control. In recent years brands have lost respect and status, and have no longer the power they once had. Retailers have gained power as the mass media is losing its touch and retailers understand that when you control the selves you control the shopper and profitability. One way to improve profitability for retailer is through own brands (private labels). This phenomenon erodes the brands even more as retailers have simply replaced external brands with their own. (Thomassen, Lincoln & Aconis 2006, 192) This trend is very evident in many areas of retail.

3.6 Success factors in internationalization

Five success factors for retail internationalization when examining European retailers are: emphasis on innovation, controlling branding, entering and adapting to new markets, use of economies of scale and scope, and increasing the speed of response. (Dawson et al. 2006, 201)

Innovations usually emerge in three areas. These are format and formula development to provide faster, easier, and better customer service, the processes that operate within the retail firm to remove costs from the supply chain, and the items that are sold by the retailer. In internationalization it is also important to view the transferability of these key factors. Innovation is one of the main factors influencing the competitive advantages of a retailer. However, though innovation is necessary for success in international retailing, it does not bring success automatically. (Dawson et al. 2006, 201-202)

To become competitively successful, a retailer needs to take control of the brand. In retailing, the concept of a brand is complex and operates in three levels: the company level, the store level, and the item for sale level. To achieve a significant brand, a retailer needs to align its brand activities across all the three levels. In single-brand shops the brand is owned and controlled by the retailer, for example IKEA. Also in the food area, retailer branded items can account over 75 per cent of sales volume. The transferability of this success factor to another cultural market is complex, but can be successfully implemented. (Dawson et al. 2006, 203)

Faster operation of processes deals with responding to price reductions or promotions done by another firm, taking time out of the supply chain and speeding the development of stores, and developing products more quickly. These factors are also internationally transferable, but there are differences in importance of these actions in different markets. Responding quickly can be viewed from other angle, too. When internationalizing, a retailer must become established quickly in order to gain critical mass or to establish a market presence. (Dawson et al. 2006, 207)

In addition to these five characteristics, also one evident feature for gaining success in international markets is that the retailer is in the lead or perhaps dominates the home-market. This invariable rule has been broken only by Wal-Mart, which was not a dominant US leader when it began its internationalization. However, Wal-Mart had a strong and growing revenue and profit base in the US when it entered the NAFTA countries at the beginning of 1990s. (Seth & Randall 2005, 87)

4. Country level competitiveness

4.1 Business Environment

Business environment of a country, among many other things, affects the pharmacy industry, its structure and development. There are a number of factors which affect the business environment of a country. To get a picture of the business environment in Russia, Estonia, Latvia and Lithuania, four different indicators of business environment are discussed in this chapter: Ease of Doing Business Rank, Global Retail Development Index, amount of Foreign Direct Investments received by the countries, and Corruption Perception Index. By these factors, it is possible to get information about the general environment where the industry operates and develops.

4.1.1 Ease of Doing Business Rank

Doing Business is an annual report published together by the World Bank and International Finance Corporation. In 2007, the report covered 178 economies and measured 10 areas of doing business (for subcategories see table 10). The closer to place one the ranking is, the more conductive the environment is for business operations. The ease of doing business ranking is an average of the country's percentile rankings on the 10 topics. (World Bank 2007)

In 2007 rankings, the best performer of the four countries was Lithuania (rank 16) and Estonia is just one place behind on rank 17. Latvia is a few places behind on rank 24 and Russia is further behind on rank 96. The worst performing of the old-EU countries is Greece on rank 109 and the second worst is Italy on rank 82. The Baltic States did quite well and Russia also performed better than the worst old-EU country. Only Latvia has improved its position remarkably by climbing up by 7 ranks from year 2006.

When looking at the subcategories of the ranking (table 1), it can be seen that in Russia the most difficult areas are dealing with licenses (163), getting credit (159), and trading across borders (143). On the other hand, Russia performed well compared to its total ranking in starting a business (33) and enforcing contracts (25). Estonia's weak point is clearly employing workers (151) and its best ranks were in trading across borders (6) and dealing with licenses (13). Latvia's trouble area is also employing workers (123) and the best performing areas were enforcing contracts (11) and getting credit (13). Also Lithuania performed poorly in employing workers (119) and its best areas were registering property (3)

and enforcing contracts (4). Employing workers is easier in Russia than in the Baltic States, but trading across borders is more difficult. As an example, the costs to export and import are at least twice as high in Russia as they are in the Baltic States and time to export is at least 28 days longer and to import at least 21 day longer (World Bank 2007).

Table 1. Ease of Doing Business Rank 2006 and 2007, and subcategories for 2007

	Russia	Estonia	Latvia	Lithuania
Ease of Doing Business Rank 2006	97	17	31	15
Ease of Doing Business Rank 2007	96	17	24	16
Starting a Busines	33	51	25	48
Dealing with Licenses	13	13	65	23
Employing Workers	87	151	123	119
Registering Property	44	23	82	3
Getting Credit	159	48	13	33
Protecting Investors	60	33	46	60
Paying Taxes	98	29	52	40
Traiding Across Borders	143	6	28	32
Enforcing Contracts	25	20	11	4
Closing a Business	81	47	62	30

Source: World Bank Group

4.1.2 Global Retail Development Index

The Global Retail Development Index is published by A.T. Kearney, a global strategic management consulting firm. It uses 25 macroeconomic and retail specific variables to rank the top 30 emerging countries for retail. The scores vary from 0 to 100, hundred being the best and zero the worst score. In this ranking Russia performs very well, ranking second after India and being followed by China. Latvia is also in the top 10, ranking seventh. Lithuania is in 28th rank and Estonia has fallen from the top 30. Table 2 presents the top 10 and Lithuania in 2007.

Table 2. The top 10 of the 2007 Global Retail Development Index and Lithuania

2007 rank	Country	GRDI score
1	India	92
2	Russia	89
3	China	86
4	Vietnam	74
5	Ukraine	69
6	Chile	69
7	Latvia	68
8	Malaysia	68
9	Mexico	64
10	Saudi Arabia	64
28	Lithuania	50

Source: A.T.Kearney: The 2007 Global Retail Development Index

As Russia continues in the top three, it is presenting exciting market opportunities for retailers. Already for a few years, consumer spending has risen rapidly and it resulted in an overall retail sales growth of 13 % in 2006. Most of the spending is concentrated to Moscow and St. Petersburg. However, as these markets are getting saturated also the second- and third-tier cities have started to interest global retailers. Carrefour, the French retailer giant, did not enter the saturated markets, but entered tier-two cities directly. Also Ikea and British Kingfisher, a do-it-yourself chain, entered tier-two cities, Kazan and Samara. (T.A. Kearney 2007, 14-15)

The more-saturated Baltic State's markets, however, provide opportunities more suitable for discounters and to other customized store formats. (A.T. Kearney 2007, 8) Latvia remained in the 7th rank due to its impressive GDP growth in 2006. The report expects this growth to continue at this pace over the next two years. (A.T. Kearney 2007, 16)

Generally, the report highlights the importance of the timing of the market entry in terms of consumer readiness and the significance of the challenge of entering second- and third-tier cities versus first-tier cities. (A.T. Kearney 2007, 3)

Russia clearly beats the Baltic States in this ranking, even though it fell behind in the Ease of Doing Business Rank. This just underlines the problems in the institutional framework of Russia. The country does offer huge opportunities for growth in retailing, as the population is numerous and the economic growth is fierce.

4.1.3 Foreign Direct Investment

The role of foreign direct investment has been very important in the development of transitional economies (TEs). FDI can be seen as the best form of capital import from the point of view of TEs, as the direct investment usually contains technology transfer and managerial and organizational know-how. It can also speed up reconstruction and modernization. However, FDI, especially in services, can also have a negative effect on local operators, as big international companies can destroy local shopkeepers with lower prices and a wider selection, and also affect the business of related industries as they import most of the goods sold. (Tiusanen 2003, 33) The distribution of FDI has been very uneven among these post-communist countries. (Tiusanen & Jumpponen 2004, 34)

Table 3 shows the FDI stock per capita and its growth in selected transitional economies. Estonia, Czech Republic, and Hungary were clearly the top three in 2006. Latvia and Lithuania have also received a good amount of FDI per capita. Russia has received about 4,5 times less FDI per capita than Estonia, but does perform well among CIS countries. For all the countries in the table, the growth of FDI has been clearly stronger between 1995 and 2000 than since then. During this period, most of the FDI received by TEs were brownfield investments, privatization of State-owned Enterprises, and acquisitions/ takeovers at a low selling price for local companies (Bitzenis & Marangos 2007, 428). The growth of FDI per capita in Russia was 2000-06 substantially faster than in the Baltic States, which also have remarkably strong growth figures.

Table 3. FDI stock per capita in selected countries, 1995-2006

	FDI stock per capita 1995-2006, EUR					Growth %,	Growth %,
	1995	2000	2004	2005	2006	1995-2000	2000-2006
Estonia	340	2076	5468	7086	7158	511	245
Latvia	180	902	1437	1808	2492	401	176
Lithuania	76	717	1365	2027	2468	843	244
Russia	22	237	624	1061	1575	977	565
Czech Republic	556	2271	4118	5025	5729	308	152
Hungary	854	2407	4539	5192	6326	182	163
Poland	159	962	1658	1986	2360	505	145
Slovakia	189	947	2096	2475	3588	401	279
Slovenia	692	1563	2794	3065	3373	126	116
Bulgaria	33	297	954	1486	2042	800	588
Romania	28	311	694	1012	1436	1011	362
Ukraine	12	85	149	309	375	608	341

Source: WIIW 2007

Some explanation for these differences in receiving FDI can be found from the attractiveness of the business environment. Estonia ranks high in the Ease of Doing Business Rank and has received a huge amount of FDI. Russia, on the other hand, performed more modestly in both, receiving only about a quarter of Estonia's amount of FDI per capita and ranked 96th out of 178 countries in the Ease of Doing Business Rank. It is interesting that Lithuania performed better than Latvia in the ranking, but the difference in received FDI is minimal. On the other hand, Lithuania's received FDI per capita has grown remarkably faster than Latvia's since 1995. Also the A.T. Kearney's rankings are in line with the FDI figures. As the Baltic States are more saturated and have already received relatively more FDI than Russia, they did not perform as well as Russia in the Global Retail Development Index.

One clear reason for the modest FDI per capita performance in Russia is her restrictive FDI policy. Certain limits have been set for FDI involvement, for example, in mining and banking. Portfolio equity investments by Western investors have been allowed, but not FDIs in certain delicate branches. FDI includes economic dominance, while portfolio equity investment does not.

4.1.4 Shadow Economy and Corruption

Under the centrally planned system the communist party was the leading force of the society. The elite of this party was running the economy through functional agencies like the Price Office, which fixed all wholesale and retail prices, and Gossnab (state supply office), which linked supply and demand administratively and replaced free market. This system was functioning only in theory. In real life this system created a shadow economy. This parallel economy consisted of legal, semi-legal, and illegal components. (Tiusanen and Malinen 2006, 4)

Under Soviet rule, the rural economy was collectivized, but peasants were still allowed to farm a small plot and have livestock for their own use. However, if the state supply was not sufficient enough, the peasants were allowed to sell their surpluses to the cities. Peasants paid for the marketplace and were able to charge a market price for their goods. For example, if butter was out of stock in the state stores (fixed price), it was sensible for peasants to sell it at market price (a higher price). Also, in retail trade it was common to store goods in short supply in the backroom and then sell them at market price under-the-counter. Even though imports were centrally controlled, foreign consumer goods were available on the black market. (Tiusanen and Malinen 2006, 5)

Short supply also existed in the enterprise sector. This led to unofficial horizontal links between enterprises, a network of personal relationships, supply agents and corrupt practices. This shadow economy was based on stealing state property and probably on close co-operation between traders and supply agents and the party elite. The shadow economy did not raise social disapproval, because everybody tried to benefit from the parallel market. (Tiusanen and Malinen 2006, 5)

It is clear that the Soviet economy could not function without the shadow economy. There is a lot of evidence that the Soviet elite was involved in the parallel economy and generated profit from black markets. This is one reason why the elite opposed economic reform before the collapse of the Soviet system. (Tiusanen and Malinen 2006, 5)

Today, Russian organised crime is still powerful, but not as wide as usually assumed. It exists most probably in the periphery, but for example in Moscow, the times of paying protection money are largely over. However, private security guards (okhrana) give some kind of security for trouble-free business operations. Outside Moscow and St. Petersburg, conspicuousness can cause trouble for business, but good relations with local authorities can help to achieve a good atmosphere for business. Violence is also decreasing and most incidents today are directed towards Russian businessmen. Today, various forms of fraud and computer hacking are big problems. Russian banks are poorly regulated and intellectual property rights are inadequate, so financial frauds and property right problems can cause problems. (EIU 2007a, 19-20)

In Estonia and Latvia drug smuggling is a problem, but rarely affects foreign business operations. In Estonia, the organised crime linked to Russia is nonexistent, but there is a huge black market for forged goods. However, the government is trying to eliminate the problem. Latvian organised crime focuses on human-trafficking, financial crimes, currency counterfeiting and car thefts, in addition to drug smuggling. Problems of the early transition, extortion and organised crime groups, are no longer serious problems. However, trafficking and sale and use of drugs are increasing rapidly. (EIU 2007a, 13; 2007c, 15)

The corruption perception index (CPI) is published annually by Transparency International. It has been published since 1995 and today it ranks 163 countries by their perceived level of corruption, as determined by expert assessment via opinion surveys. The CPI scores countries on a scale from zero to ten. Zero indicates high level of perceived corruption and ten indicates no perceived corruption. Score five is considered as a threshold for a serious corruption problem. (Transparency International)

Only Estonia's scores among TEs under review here stay above the critical level of five (table 4). Also Latvia and Lithuania are quite close to the critical score 5, but Russia's score falls behind, being only 2,3 in 2007. When compared to year 2006, the scores of these countries stayed on the same level.

Table 4. Corruption perception index in studied countries

Country	CPI Rank		CPI Score	
	2006	2007	2006	2007
Estonia	24	28	6,7	6,5
Lithuania	46	51	4,8	4,8
Latvia	49	51	4,7	4,8
Russia	121	143	2,5	2,3

Source: Transparency International

When taking into consideration also the Ease of Doing Business Rank and FDI per capita figures, it is clear that Estonia performs very well in all of these indicators. It can be said that Estonia's business environment is very attractive for foreign investors. Russia had the poorest figures in all the examined indicators and yet it ranked as an attractive investment destination for retailers in A.T. Kearney's Index. This is due to other factors that also affect the investment decision. For example, Russia's huge population and rapidly growing economy attract investors. The Baltic States ranked more moderately, especially Estonia and Lithuania, in the Global Retail Development Index, which was due to growing market saturation. However, the Baltic States can be seen as less risky for investors in light of the Ease of Doing Business Rank, FDI per capita figures, and CPI scores.

4.2 Economic Trends

Macroeconomic indicators affecting retail and especially pharmacies include population demographics, consumption habits, living standard, and wage and price development. The demographics of population give information, not only about the amount of consumers, but also about the type of sicknesses common to the population and through that about the type of needs consumers have. Living standard indicators, like gross domestic product, and price and wage development trend give information about the amount of money available for consumption and if this amount is increasing or decreasing. Consumption habits, on the other hand, describe how the consumers in a country generally use their earnings. These indicators together give a general picture of the consumer base and market potential.

4.2.1 Living Standard

Differences between the communist system and the Western system caused a living standard gulf in Europe between East and West. This gulf became deeper during 1970s and 1980s, and eventually caused the collapse of communism in the turn of 1980s and 1990s. The collapse caused an economic slump. (Tiusanen 2006, 25)

After the collapse, real GDP fell by around 12 % in 1991 in Russia and inflation raised to triple digits, even though the price liberalization had not taken place yet. The effects were similar in the Baltic States in which economic growth resumed by the mid 1990s. In 1998, the Russian financial and economic crisis, caused by falling oil prices and growing investor doubts, hampered the growth of these economies. In Russia, growth resumed after the crisis, because strongly devalued ruble exchange rate favored import-substitution activities and high international oil prices, enhanced export income essentially. (EIU 2007a/b/c/d)

In international living standard comparison, Gross Domestic Product (GDP) per capita is the most commonly used measure. It is obvious that the figures need to be converted into one currency to be able to compare them. Figures are commonly converted into US dollars or euros. It is also more accurate to use purchasing power parity adjusted figures, because exchange markets are imperfect and can overvalue some currencies and undervalue others. Exchange rates need to be adjusted so that an identical sample of basic goods and services costs the same in one country as in another. (Tiusanen 2006, 26)

To evaluate the under- or overvaluation of a currency exchange rate, deviation index (ERDI) is used. It is calculated by dividing GDP per capita at PPP with nominal GDP. The official ER is on the “right” level when it is identical with the PPP adjusted figures, meaning it reflects prices correctly. In this case the ERDI figure is one (1). When the ERDI figure is over one, the currency is undervalued and if the figure is below one, the currency is overvalued.

In practice, this means that when a person from a country that has a currency which is undervalued travels to richer country, he or she cannot buy as much with the same amount of money as he/she can at home and must pay a so called “undervaluation penalty”. When they exchange money, they pay according to the official ER which undervalues the currency. On the other hand, a person from a richer country traveling to a country in which the currency is undervalued can buy more with the same amount of money than they could in their home country. In this similar way imported goods in a country with undervalued currency are

expensive in the eyes of local customers and thus undervaluation favors import substituting production and encourages exports. This is called exchange rate protectionism.

Table 5 presents the ERDI values for chosen countries. All TE-currencies are undervalued; ERDI is over 1 in each country. The exchange rate GDP figures are clearly more moderate than the PPP adjusted ones. However, the PPP adjusted figures are still behind the European Union averages. Estonia is closest to the EU figures, but still falls remarkably behind the EU average living standard. All figures in this context are calculated on per capita terms.

Table 5. GDP per capita 2006 (Euro-Based)

	At exchange rate (A)	At PPP (B)	ERDI (B/A)
Russia	5 516	9 878	1,79
Estonia	9 754	16 303	1,67
Latvia	6 970	13 338	1,91
Lithuania	7 006	13 735	1,96
EU15		27 021	
EU25		24 117	

Source: WIIW

Table 6 shows development of GDP per capita at current PPP in Russia, Estonia, Latvia, Lithuania, and EU25. Growth has been fastest in Estonia; GDP per capita has almost doubled between 2000 and 2006, and the strong growth is predicted to continue. Russia is clearly behind the Baltic States, even though its growth has been rapid. The extrapolation for 2010 and 2015 shows that only Estonia will be close to the living standard of the EU25 in the relative near future. In the calculations it is assumed that the growth is faster in TEs than in EU25 in average.

Table 6. GDP per capita at current PPPs (EUR), from 2010 at constant PPPs

	1991	2000	2006	2010	2015
Russia (1)	8 133	5 973	9 893	12 071	15 405
Estonia (1)	5 688	8 245	16 162	21 150	26 993
Latvia (1)	6 882	7 002	13 055	16 928	21 605
Lithuania (1)	8 172	7 603	13 704	17 217	21 973
EU25 avarage (2)	14 288	20 098	24 559	27 534	31 765

(1) projection assuming 5% p.a. GDP growth and zero population growth p.a.
(2) projection assuming 2% p.a. GDP growth and zero population growth p.a.
Source: WIIW

Among the four TEs under review, living standard is the highest in Estonia, but Latvia and Lithuania are not far behind. The extrapolation shows that in 2015 the living standard in Estonia is close to the level of EU25 in 2010, in Latvia and Lithuania it will be close to EU25 year 2000 figures. Russia in 2015 will be close to EU25 living standard of 1991. However, these figures are based on the assumption that GDP per capita figures will grow by 5 % in TEs under review and by 2 % in EU25 per annum.

4.2.2 Prices and Wages

During the communist times, the state fixed prices. The Soviet system was producer-driven and put only few resources into marketing and retailing. Heavy subsidies were directed to consumer goods and services, but the state was unable to guarantee the availability of them at the subsidized prices. The lack of competition kept the quality low. (EIU 2007b, 50) However, goods which were officially not available could be found in the "black market", where prices were essentially higher than the official ones (Tiusanen 2006, 32). After the collapse of the Soviet Union, price inflation was very high (triple digit numbers) but declined to close to 10 % in 1997 in Russia, Estonia, Latvia and Lithuania. The Russian financial crisis accelerated the inflation in Russia to 85 % at the end of 1998. In the Baltic States consumer price inflation decelerated at the beginning of the 21st century to around 1,5-3,0 % p.a.. At that point the figure was 20 % in Russia. EU accession has somewhat accelerated consumer price inflation in the Baltic States. (EIU 2007a/b/c/d)

In all emerging markets there is the obvious danger that prices are increasing more rapidly than the world average. In this case, international competitiveness deteriorates. This usually causes problems in current account (CA).

In this context, Russia is a special case with her export structure which contains mainly oil and gas, as well as semi-manufactured goods (metals, chemicals). These exports have been in high demand lately causing price increase. Therefore, in the first years of the 21st century, Russian CA has been in surplus. The Baltic States struggle with high CA deficits which are not sustainable.

Table 7 shows that in Russia, the price level has more than doubled between 2000 and 2006. The equivalent increase of consumer prices in Lithuania was only about 8 %. In Estonia and Latvia the equivalent growth figures were 24,3 % and 30,1 %, respectively.

Table 7. Development of Prices, Wages and Labor Costs

	Russia		Estonia		Latvia		Lithuania	
	2000	**2006**	**2000**	**2006**	**2000**	**2006**	**2000**	**2006**
Consumer price index, 2000 = 100	100,0	219,7	100,0	124,3	100,0	130,1	100,0	108,3
Avarage monthly gross wages, EUR (PPP)	266,0	564,0	596,0	1006,0	530,0	820,0	567,0	853,0
Unit labour costs, PPP adj., Austria = 100	14,6	36,6	36,5	42,9	34,8	35,5	31,6	33,2

Source: WIIW: Research Reports 341, 2007

Average gross monthly wages in table 7 are given in EUR with PPP adjustment, and reflect growth of real income rather well. Russian figures show that the monthly pay between 2000 and 2006 has more than doubled. However, the 2006 figure is clearly more modest than the equivalent figures in the Baltic States.

Estonians earn more than citizens of other countries under review. Monthly pay exceeded €1000 in 2006, which is almost twice as much as in Russia. Estonia's pay package has increased by almost 70 % in 2000-06, while the equivalent figure in Latvia was about 55 %, and in Lithuania about 50 %. Lithuanians earn somewhat less than Latvians. These two countries clearly have lower wages than workers in Estonia, but are well above the Russian average pay.

In every national economy, wages should grow in unison with productivity. If wage increases are higher than the improvement in productivity, it is said that the country suffers from "wage inflation".

Unit labor cost (ULC) is a good indicator of the development of competitiveness internationally. ULC comparison can be made with standard statistics. Presented in table 7, is ULC data concerning countries under review. The anchor of the given index is Austria, which is in many respects on an average level of EU15 (Western Europe). The ULC figure in Russia has more than doubled between 2000 and 2006. However, the latter figure, about 37, is still rather modest, somewhat more than one third of the Austrian level. The growth of ULC indicates that Russia is losing international price competitiveness very rapidly.

As pointed out above, price competitiveness is not hurting Russian exports in a "normal" way because of her peculiar export structure. However, the ULC development trend is clearly affecting Russia's import substituting activities. In most categories of manufactured imports, quality is superior in comparison to local alternatives. Now, with rapidly increasing ULCs, Russia's price competitiveness is deteriorating, which favors goods produced abroad.

The ULC development in the Baltic States is economically much more important than in Russia, because Estonia, Latvia and Lithuania export manufactured goods which are price sensitive. These three small national economies must pay prime attention to price competitiveness, in order to control their CA deficit. In Estonia, the ULC index figure has increased by 17,5 % in 2000-06. ULC level is 43 % of the Austrian figure (2006). Therefore, ULC growth should be kept under better control. Latvia has been able to control her ULC development very well with only a 2 % increase in the timeframe under review here. Her ULC figure is somewhat higher than one third of the Austrian level. The equivalent growth in Lithuania is about 5 % which is also a very good result. Lithuania is now the cheapest country in table 7 in terms of ULC with just one third of the Austrian figure.

4.2.3 Consumption

As pointed out above, overall economic growth has been vigorous in all four TEs under review during the first years of the new century. Thus, trends in private consumption and income development are extremely positive, not only in nominal but also in real terms. This tendency is visible in table 8 which covers three years (2004-06).

Table 8. Consumption of households and average monthly gross wages (real annual growth rates in %)

	Consumption of households			Average monthly gross wages		
	2004	**2005**	**2006**	**2004**	**2005**	**2006**
Estonia	6,7	10,6	15,1	5,2	6,4	11,6
Latvia	8,7	11,6	20,0	2,4	9,7	15,6
Lithuania	12,2	12,1	11,8	4,9	6,8	13,6
Russia	12,1	12,8	11,2	10,6	12,6	13,0

Source: WIIW

In Russia, all figures in table 8 are double digit. Private consumption has increased no less than 12 % a year on average (2004-06). Real monthly wage growth has somewhat accelerated from 10,6 % in 2004 to 13 % in 2006. Consumption and income figures show almost parallel development.

Also in Lithuania, private consumption has increased on an annual average of 12 % in the period under review. In 2004-05, consumption grew about twice as fast as income which implicates that people are either depleting their savings or taking credit. Obviously, a part of the population takes the former option and another group the latter. In purchasing consumer

durables (including cars) installment payments are available, as well as consumer credits from financial institutions.

In Latvia, private consumption growth has accelerated remarkably in the 3 year period under review from 8,7 % in 2004 to no less than 20 % 2006. Spending money very clearly exceeds the speed of income improvement. The latter has, however, impressive progress.

In Estonia, the trends are similar. Both consumption and income grew with increasing speed, but the growth of consumption exceeded the pace of earnings.

In sum, table 8 paints a very positive picture of the increasing living standard on a personal and household level. Consumption and income trends contain plenty of dynamism.

Family budget figures are relatively easily available allowing international comparisons. On the expenditure side, there is one basic rule available: the more developed a national economy is, the less an average household spends on food in relative terms. As shown above, Estonia has the highest living standard among the four countries under review, while Russia is at the bottom of the scale. Thus, an average Estonian household spends less on foodstuffs than a Russian equivalent, in relative terms.

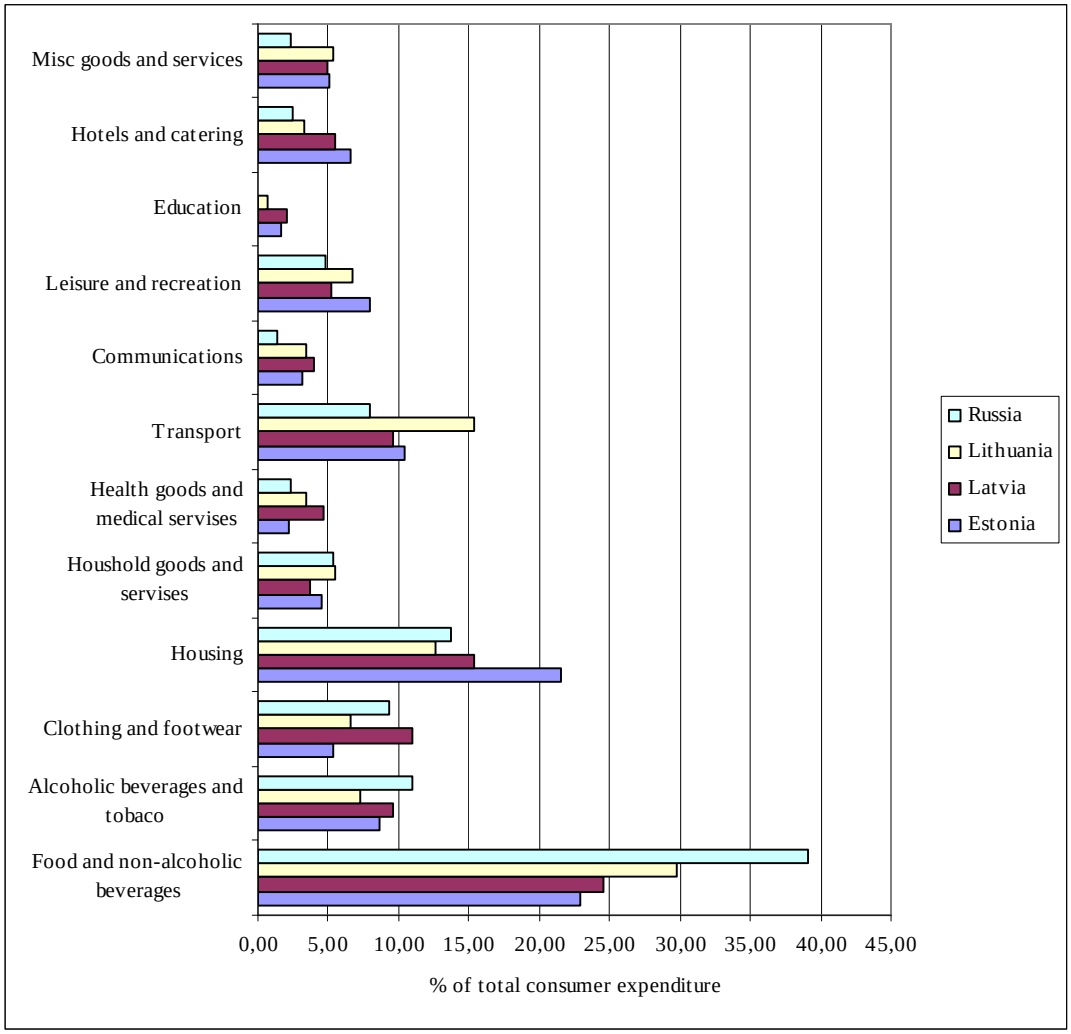

Figure 4. Consumer expenditure by purpose 2005 (Euromonitor International 2006)

In household expenditure eating and drinking, as well as housing are regarded as necessities. Everybody must have nourishment and shelter.

According to figure 10, an Estonian household spends about 23 % of the family budget on food and non-alcoholic beverages, while the equivalent figure in Russia is 39 %. Latvia with 24,6 % and Lithuania with 29,8 % are between these two countries.

Alcoholic beverages and tobacco are often regarded as necessities. If this category is added to the “food basket”, the Estonians spend 31,6 % of their family budget on this extended basket, while the equivalent figure in Russia is essentially more, 50,1 %. Both Latvia and Lithuania are again in between, with 34,2 % and 37,0 %, respectively.

Housing is a big money eater in the family budget. In Estonia, housing costs take a rather high share of 21,6 % of family expenditure. The equivalent figure in Russia is 13,8 %, in Latvia 15,4 % and in Lithuania 12,7 %.

When these three baskets are added together, it is possible to conclude that in Estonia necessities take about 53 % of the family budget, in Latvia and Lithuania about 50 % and in Russia about 64 %. Thus, the so called discretionary part of family budget is 47 % in Estonia, 50 % in Latvia and Lithuania, and 36 % in Russia.

The biggest part of this remaining money in Lithuania is spent on transportation which takes no less than 15,3 % of family expenditure. The second highest figure in this category is in Estonia with 10,4 %, followed by 9,6 % in Latvia and 8 % in Russia. It can be assumed that in oil-rich Russia fuel prices are kept on a low level allowing favorable transportation costs.

Health goods and medical services have a rather marginal share in the above table of household expenditure. In this context, Latvia has the highest figure with 4,6 % followed by Estonia with 2,1 %. Euromonitor International forecasts that this branch has huge growth potential between 2000 and 2015. According to its prediction the branch will grow in Estonia by 143 %, in Latvia by 123 %, in Russia by 38 % and in Lithuania by 32%.

A special report “Pharma 2020” made by Price Waterhouse Coopers predicts that during the next decade, the fastest growth of pharmaceutical products will be in seven dynamic emerging economies. This group of countries includes Russia, Brazil, China, India, Indonesia, Mexico and Turkey.

4.3 Regional differences

As discussed above, the three Baltic States, and Russia differ fundamentally in size. In small states, population and economic activity is heavily concentrated on the capital city and surrounding areas. Russia has completely different dimensions than the Baltic States. Table 9 shows the differences in respect to population distribution to capital cities. In Estonia and Latvia, the capital city gathers 30 % or more of the population. In Lithuania the equivalent figure is 16 % and in Russia it remains at 7 %. Reasons for this concentration of population around the capital city are better job opportunities, availability of services and education possibilities.

Table 9. Population in capital cities

	Population	% of total
Estonia	1 346 097	
Tallinn	397 150	30
Latvia	2 300 512	
Riga	727 578	32
Lithuania	3 414 304	
Vilnius	541 291	16
Russia	143 821 213	
Moscow	10 406 578	7

Source: UNECE

In Russia, the distribution of people and income is clearly affected by the Soviet time geographical specialization. Some regions were more developed than others, and in addition to that some specific industries were promoted more than others. All this created a variety of economic distortions. One example of this is the bigger cities in the Artic Circle. They constantly need more financial support from the federal centre. (EIU 2007a, 42) The differences in income and economic structure vary largely across the country. Moscow on its own accounted for about 21 % of the GDP in 2004 and salaries are more than double than in the South Federal District for example (table 10). Table 10 clearly shows that heavy industries, which were strongly promoted in Soviet Union, are concentrated in European Russia (North West, Central and Volga), Urals and the Artic Circle. These are the locations of Russian natural resources. Southern Russia was under the communist rule the centre of agriculture and thus, by definition neglected in economic policy-making. (EIU 2007a, 42)

Table 10. Economical indicators by Federal District in Russia

Federal district	**Gross regional product 2004, billion RUB**	**Share of total gross domestic product**	**Gross regional product per capita, RUB**	**Avarage monthly salary per capita RUB, Jan-Jul 2005**
Central	3 940	34,0	104 928	8 879
Moscow	*2 441*	*21,1*	*234 601*	*13 039*
North West	1 154	10,0	84 029	9 271
St. Petersburg	*436*	*3,8*	*94 717*	*10 178*
South	900	7,8	39 451	5 464
Volga	1 964	17,0	63 953	6 146
Urals	1 777	15,3	144 733	11 037
Siberian	1 266	10,9	63 968	7 618
Far East	581	5,0	88 154	10 630

Source: Ylä-Kojola 2006, Appendix 2

Estonia is a small country, but it still has regional differences between its 15 counties. Harju county includes the capital city Tallinn and had a 60 % share of GDP in 2004. Wages are also clearly higher in Harju than in the rest of the country. These differences are shown in table 11. Wages are lowest in Ida-Viru county, which is the region of the obsolete Soviet-era industries, Estonia's oil shale industry, and is the most Russified county. Ida-Viru also has a high number of drug users. (EIU 2007a, 27)

Table 11. Economic indicators by county in Estonia

County	Gross regional product 2004, million EEK	Share of total gross domestic product	Gross regional product per capita, EEK	Avarage monthly salary per capita EEK, 2005
Harju	88601,1	60,4	169 986,6	9 307
Hiiu	751,4	0,5	73 178,8	6 721
Ida-Viru	11322,6	7,7	64 963,0	6 057
Jõgeva	1786,5	1,2	47 563,9	6 758
Järva	2695,1	1,8	70 556,1	6 877
Lääne	1871,7	1,3	66 739,2	6 468
Lääne-Viru	4876,3	3,3	73 213,3	6 301
Põlva	1569,0	1,1	49 257,5	6 210
Pärnu	7110,7	4,8	79 448,3	6 902
Rapla	2247,6	1,5	60 642,7	6 660
Saare	2499,5	1,7	70 843,5	6 938
Tartu	13740,7	9,4	92 294,4	7 624
Valga	1873,5	1,3	53 585,2	6 081
Viljandi	3550,0	2,4	62 571,6	6 368
Võru	2197,9	1,5	56 614,8	6 284

Source: Statistics Estonia

Also in Latvia the area surrounding the capital city, Riga, is the most populous and produced about 57 % of the GDP in 2005 (table 12). Wages are also clearly higher in the Riga region than elsewhere in the country. The difference between the lowest wages paid in Latgale region and the highest paid in Riga region is about 40 %.

Table 12. Economic indicators by region in Latvia

Region	Gross regional product 2005, thsd LVL	Share of total gross domestic product	Gross regional product per capita, LVL	Avarage monthly salary per capita LVL, 2005
Riga	5190886,0	57,3	7 114	347
Pieriga	1008529,0	11,1	2 743	288
Vidzeme	563908,0	6,2	2 309	235
Kurzeme	965196,0	10,7	3 118	249
Zemgale	629684,0	7,0	2 192	245
Latgale	691460,0	7,6	1 910	214

Source: Latvijas Statistica

In Lithuania the capital city Vilnius accounted for about 36 % of GDP in 2005 (table 13). Also Kaunas county, which includes Lithuania's second largest city, and Klaipeda, the site of the country's most important port, differs from the rest of the counties. As can be seen from table 11, wage differences are remarkable. Taurage is the poorest county and it suffers from higher unemployment, 7,1 % in 2005 compared to the country average of 4,8 %. (EIU 2007d, 29).

Table 13. Economic indicators by county in Lithuania

County	Gross regional product 2005, million LTL	Share of total gross domestic product	Gross regional product per capita, thsd LTL	Avarage monthly salary per capita LTL, 2005
Alytus	2655,5	3,7	14,6	1 072
Kaunas	13792,0	19,4	20,2	1 192
Klaipeda	8356,0	11,7	21,9	1 256
Marijampol	2449,4	3,4	13,3	1 001
Panevezys	5040,7	7,1	17,3	1 094
Siauliai	5662,0	8,0	15,8	1 049
Taurage	1402,6	2,0	10,7	936
Telsiai	3246,1	4,6	18,4	1 248
Utena	3112,8	4,4	17,5	1 231
Vilnius	25482,9	35,8	30,0	1 487

Source: Statistics Lithuania

4.4 Population

The development of population growth in Russia and in the Baltic State countries is presented in table 14 in the post-Soviet period. Population in all these countries has been in decline through the observed period. The decline was very severe at the beginning of 1990s for Latvia and Estonia, partially affected by mass emigration.

Table 14. Development of population, in million persons

	Population in million				Change %	Change %
Country	1990	1995	2000	2005	1990-1995	2000-2005
Latvia	2,713	2,498	2,373	2,301	-7,92	-3,03
Lithuania	3,698	3,628	3,500	3,414	-1,89	-2,46
Russia	148,370	148,189	146,560	143,202	-0,12	-2,29
Estonia	1,584	1,447	1,367	1,330	-8,65	-2,71

Source: Statistics Finland

Russia has lost about 4 million people after the collapse of the Soviet Union (EIU 2007b, 20). In 1990s death rates raised quickly. In 1992, death rate was 12,2 per 1000 people and in 1995

already 15,0 per 1000 people. However, death rates started to rise already in the 1960s. The death rate reached an all-time high in 2003, 16,4 per 1000 people. In 2006, the death rate had already declined to 14,7 per 1000 people, but figures are still above the rate of the time of the Soviet Union break-up. Birth rates have risen slightly, from 8,6 per 1000 people in 2000 to 10,0 in 2006. The net migration rate has been positive through the period under review. Figure 11 shows clearly that the population in Russia is declining. The death rate exceeds the birth rate and net immigration.

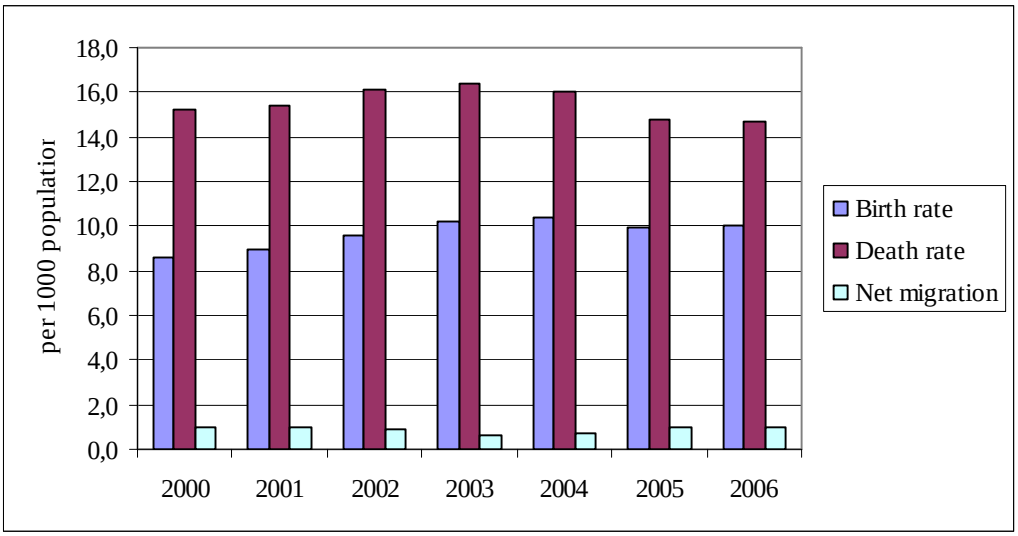

Figure 5. Main demographic indicators for Russia (Statistics Finland)

In the Baltic States, the negative net migration has had a significant effect on the decrease of population. In Estonia the net migration rate was -3,2 migrants per 1000 population in 2006 and has a huge effect on population decline. Also decline in life expectancy, after the severe economic fall that followed independence, has had an effect on declining population (EIU 2007a, 13). Latvia's population has been decreasing since its independence and was about 14 % lower in 2006 than in 1990. Entry to the EU increased economic emigration and according to the Bank of Latvia about 6 % of the labor force has left after the EU accession. In addition to emigration (-2,7 per 1000 population in 2006), falling birth rates have been a cause of decline in population. (EIU 2007c, 15) In Lithuania, the net migration rate was only slightly negative in 2006. However, at the beginning of the 21st century, the net migration was – 5,8 per 1000 population and had remarkable effect on population decline as birth rate (9,8) and death rate (11,1) were quite close to each other. The reasons behind the decline in population are growingly a preference for smaller families and ageing demographic structure (EIU 2007d, 14). Figure 12 summarizes the demographics in 2000s for the Baltic States.

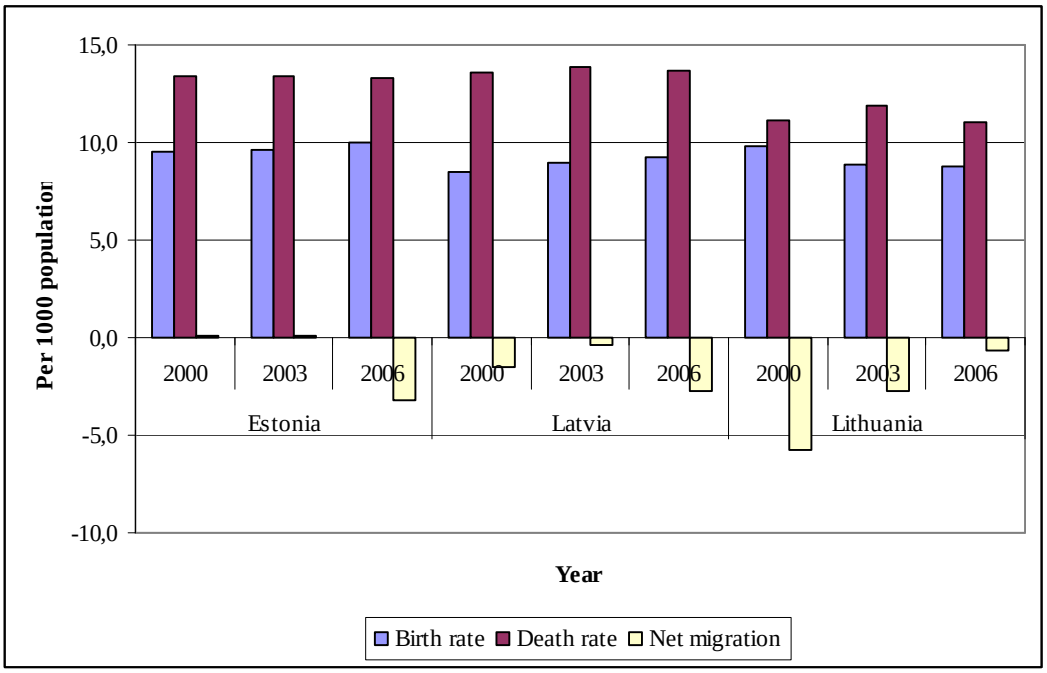

Figure 6. Main demographic indicators for the Baltic States (Statistics Finland)

In the explored countries, life expectancy at birth has developed positively after 1995 (figure 13). In 2005, the life expectancy at birth was about 67 years for males and about 78 years for females in Estonia. For Latvia and Lithuania, the equivalent ages were about 65 for males and about 77 for females. Russia's life expectancy at birth was the most modest one in this group of countries, about 59 for males and 72 for females. The difference between males and females is biggest in Russia, where females are expected to live about 13 years longer than the males. In Russia the life expectancy figures are still below the figures of 1990. The Baltic States gained the level of 1990 or exceeded it already in year 2000. Russia's life expectancy at birth figures are exceptionally low for a country at its level of development (Tompson 2007, 6).

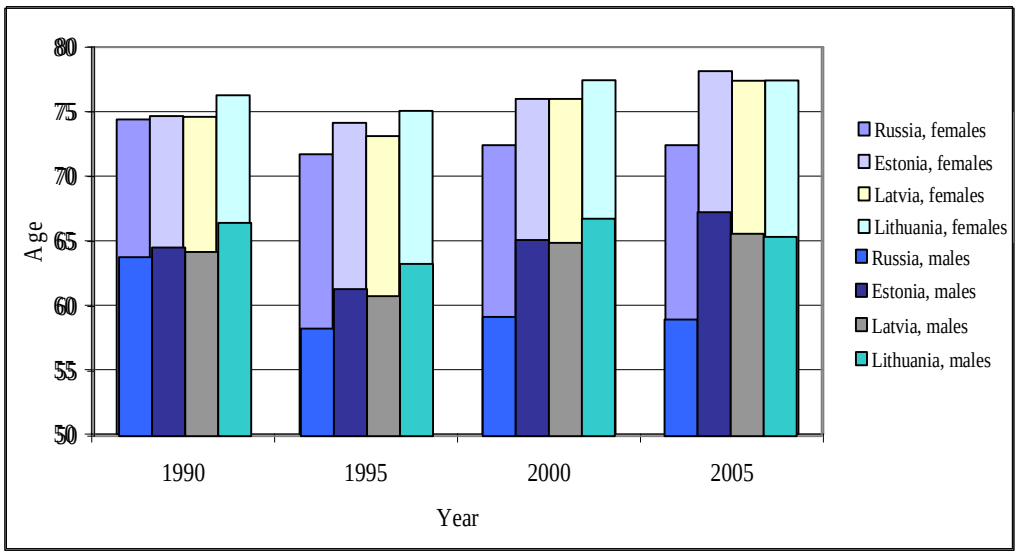

Figure 7. Life expectancy at birth (Statistics Estonia, Statistics Latvia, Statistics Lithuania, UNECE Statistical Division Database)

The population is ageing in the four studied countries. In Estonia 17 % of population were over 65 years in 2005. The equivalent figure was 16,8 % in Latvia, 15,8 % in Lithuania and 14,4 % in Russia. (EIU 2007a/b/c/d) The ageing of population and the growing living standard leading to new living habits are reasons behind the changes in causes of death.

In developed countries, the most usual cause of death today are chronic diseases, as infectious diseases were previously most common. Chronic diseases as causes of death tend to grow as a nation develops and the living habits change: the food eaten gets greasier and amounts grow, and physical activity decreases. For example, according to WHO's World Health Report 2004 in 2002 about 2,2 million people from the richest countries of Africa died of infectious and parasitic diseases, as the same number for poorest countries in Europe was 85 000 people, and the same figures for cardiovascular diseases (diseases of the circulatory system) were for Africa 496 000 and for Europe 2,3 million (WHO 2004).

Table 15 shows deaths per 100 000 people by cause of death in Russia, Estonia, Latvia and Lithuania. The share of infectious diseases is clearly lower than the share of chronic diseases. This means that living habits are quite similar to the western world: lots of food and little exercise. Ageing population also has an effect on this change. For comparison, Germany's figures for infectious and parasitic diseases were 14,6 per 100 000 population and for diseases of circulatory system 445,5 per 100 000 population in 2005 (Federal Health Monitor). However, despite the changes in the death cause pattern the share of deaths caused by infectious diseases is still high for a country at Russia's level of development. Tuberculosis is

still a problem in Russia as are the high rates of external causes of mortality, including suicides and traffic accidents. (Tompson 2007, 5-6)

Table 15. Deaths per 100 000 population by cause of death by ICD-10 in 2005

	Russia	Estonia	Latvia	Lithuania
Diseases of circulatory system	908,0	685,8	785,7	695,5
Malignant Neoplasm (cancer)	201,0	261,9	256,6	235,0
Diseases of respiratpry system	66,0	35,1	40,3	50,7
Diseases of digestive system	66,0	51,3	47,1	55,0
Infectious and parasitic diseases	27,0	8,0	12,8	14,8
External cause of mortality	221,0	123,2	139,7	162,0

Sources: Goskomstat, Statistics Estonia, Statistics Latvia, Statistics Lithuania

Declining population is equal to a declining consumer base, but this will probably affect business only in a distant future, as ageing of population, increasing wealth, and changing life styles will increase the need and ability to buy pharmaceutical and health related products. The cause of death statistics tell that these countries are becoming more like western European countries, suffering from same type of health problems, which need pretreatment or constant medication (i.e. cholesterol and diabetes).

The poor state of the Russian healthcare system has high human and economic costs, and is a threat to economic development. Poor health limits labor supply, causes productivity losses, and reductions in household income. Early exit from the labor force erodes economic development. (Tompson 2007, 7)

5. Pharmacy Industry

5.1 Pharmacy Industry Trends

Developing countries are growing fast and gaining ground on developed countries. For the pharmacy industry, the most remarkable change is the growing and ageing population. The diseases common in developing countries are increasingly similar to the ones in the western world. Years ago, infectious diseases were the biggest killers in the world, but today only in sub-Saharan Africa and South Asia. In other parts of the world the leading causes of death are chronic diseases. This change will continue as people are getting older, fatter and less physically active. (PWC 2007, 1-3)

According to the PriceWaterHouse Coopers report *Pharma 2020: The vision,* the E7 countries – Brazil, China, India, Indonesia, Mexico, Russia, and Turkey – will be the fastest growing markets for the pharmaceutical industry. The ageing population and growing income level are a basis for future market opportunities. (PWC 2007, 1-3)

IMS Health is the world's leading provider of market intelligence to the pharmaceutical and health industries. According to its article released on March 20 2007, the global pharmaceutical market grew 7,0 % at constant exchange rates in 2006. This growth was driven by ageing population, strong economies and innovative new products. Table 17 shows that North America has the biggest share of the sales. However, the Latin American and Asian, African and Australian market areas are growing rapidly, especially in comparison to Europe and Japan. Japan's decline was due to the government's biennial price cuts. (Longwell 2007) IMS health predicts that the pharmaceutical market will grow about 5-6 % in 2007, which is less than in 2006. The reason for this is that U.S. market growth will slow down and adoption of new products is not keeping up with the loss of patent protection by established products. (Henderson and Longwell 2006) IMS Health also predicts that the marketplace growth will continue to shift away from mature markets to emerging ones. 27 % of the total market growth is already coming from countries whose GNP per capita is less than $20 000. In 2001, these countries only counted for 13 % of the growth. (Longwell 2007)

Table 16. Global Pharmaceutical Sales by Region, 2006

World Audited Market	2006 Sales (US$BN)	% Global Sales	% Growth Year-over-Year
North America	289,9	47,7	8,0
Europe	181,8	29,9	4,8
Japan	56,7	9,3	-0,7
Asia, Africa and Australi	52,0	8,6	9,8
Latin America	27,5	4,5	12,9
Total IMS Audited*	607,9	100,0	6,5

Source: IMS MIDAS, MAT Dec 2006

All information current as of March 20, 2007

* Excludes Unaudited markets. Sales cover direct and indirect pharmaceutical channel purchases in U.S. dollars from pharmaceutical wholesalers and manufacturers. The figures above include prescription and certain over-te-counter data and represents manufacturer prices. Totals may not add due to rounding.

Specialized therapies will be growing more than traditional primary care classes. In 2006, these specialized products accounted for 62 % of the market's total growth when the same figure was 35 % in 2000. Some Primary care classes (e.g. antihistamines and antidepressants) experienced under average growth. This was due to the generalization of lower-cost, high-quality generics and switches to over-the-counter products. These generics represented more than half of the pharmaceutical products sold in seven key world markets (U.S., Canada, France, Germany, Italy, Spain, and the U.K.) in 2006. The lower-cost, high quality products (generics) will continue to replace branded products. Consumers are taking a more active role when trying to improve their health and prolong their lives. They will demand greater access to therapies and want to spend less money on them. These changes will create new challenge for the whole industry. (Longwell 2007)

According to PriceWaterHouse Cooper's report, the self-medication sector is growing. Previously only products used for non-chronic diseases (which were relatively easy to diagnose) and which have only little potential to cause harm had Over-The-Counter (OCT) status, but today more and more products are sold in OTC formats. The range of products with OTC status have started slowly to change and widen, and the definitions of primary and secondary care are blurring: more and more diseases can be treated in primary care. The self-care section is growing in significance: people are taking more responsibility in taking care of their health. This increases the expectations towards professionals (e.g. pharmacists) and pharmaceutical products. These changes will affect the operation of pharmacies: Pharmacists'

services and knowledge will be needed even more in the future as contacting a doctor or hospital will not be necessary for some basic diagnostics. (PWC 2007)

5.2 Pharmaceutical Systems

5.2.1 Russia

In Russia, the regulation of the pharmaceutical sector has been divided between the federal and regional levels. The federal regulation and monitoring of controlled drugs and imports of federal licenses is the responsibility of the Ministry of Health. The regional authorities oversee the local distribution, including pharmacies. Pharmaceutical manufacturing, on the other hand, is supervised by the Ministry of Health and the Ministry of Technologies, Science and Industry. The Ministry of Health also registers all drugs and biological products. This activity is handled by the ministry's Bureau of Registration of New Pharmaceuticals and Medical Equipment on the basis of assessments by the ministry's certifying agency, the State Inspection of Quality Control on Drugs and Medical Equipment. The pharmaceutical sector is quite heavily regulated, but enforcement, irregular updating, etc. are problems. On the Federal level, a list of pharmaceutical recommended for supply and use in public health facilities was created in 1996. It is called "The list of essential and life-saving drugs". The list was mainly created to support domestic production and the drugs included on the list are not necessarily "essential and life-saving". Other lists of essential drugs have also been developed by regional governments, and are usually expanded versions of the federal list. These lists are also drafted by various ministries and enterprises, whose main criteria for the lists are efficiency, safety and price. (Tragakes et al. 2003, 154)

Reimbursement system

The free-of-charge medical aid to citizens of the Russian Federation includes medicines mentioned in the legislation of the Russian Federation necessary medical products list, products of medical purpose and maintenance of children-invalids with specialized foodstuffs. (Rossijskaja Gazeta 2007) The problem with the reimbursement system is that municipal authorities can modify the list of necessary medical products and therefore the lists vary from region to region. The authorities also favor local producers and products. (Witt 2004, 2) There are no clear instructions available about the listing/delisting process set up in 2005 (PhRMA 2007).

Pricing of pharmaceuticals

There are several mechanisms for drug pricing. The Ministry of Health registers manufacturers' products and prices on a federal level. Wholesale and retail prices also have federal level limitations. In federal legislation, the maximum mark-up over the manufacturer's price is 25%, and for drugs included in the list of essential drugs, the retail price should not exceed the wholesale price by more than 30 %. The retail price mark-up is a bit higher for drugs outside the list of essential drugs. However, the mark-ups are the responsibility of regional authorities and vary from region to region. These mark-ups apply to the importer, but in practice there are various mechanisms to avoid regulated mark-ups. These mechanisms can result actual mark-ups varying from 120 to 200 %. (Tragakes et al. 2003, 154)

Drug import and export

Import and export of medicinal products in Russia is carried out under license. The license is issued for five years. Only medicinal products registered in the Russian Federation can be imported or exported. The importer can be a manufacturing company importing material for its own medicine production, a wholesaler of medicinal products or a research institute or laboratory importing for development, research and control of quality, efficiency and safety of medicinal products. Laboratories require a permit from the federal agency for quality control of medicinal products for the import of a particular batch. Foreign manufacturers or wholesalers can import if they have a representation in the territory of the Russian Federation. However, the Russian Federation may add special custom duties on import ready medical products, if it is seen that the market or medicinal products manufacturers in the territory of the Russian Federation need protection. (The Federal Law on Medicinal Products 2004, chapter VI)

Establishing a pharmacy

In Russia, all pharmaceutical activity is subject to licensing, so in order to be involved in retail trade or wholesale trade of pharmaceuticals, a license is needed. To acquire the license, the licensee has to have premises and equipment for practicing a pharmacy. Education and a minimum of three years of experience from the field the license (retail, wholesale or manufacturing) are also needed. Improvement of professional skills is demanded at least every five years. The details given in the application are confirmed from the Uniform State Register of Legal Persons or from the Uniform State Register of Individual Businessmen. The license is issued for five years. (The Federal Law on Licensing separate kinds of Activity 2006) In addition a pharmacy needs a special license to be able to handle narcotics and psychotropic substances (The Federal Law on Medicinal Products 2004, chapter VIII).

The decision of opening a new chemist's establishment is accepted by institutions of the local government. The chemists' establishments can only sell products in ready made form and the minimum assortment has been stated by federal authority. These establishments have a right to that sell disinfectants, personal hygiene products, optics, natural and artificial mineral waters, medical food for children and dietary food, cosmetics and perfumery products. (The Federal Law on Medicinal Products 2004, chapter VIII)

Pharmaceuticals which need prescription from a doctor can only be sold through pharmacies. Other medical products can, in addition to pharmacies, be sold through chemist's shops and chemist's booths. The list of medicinal products which can be sold without a recipe from a doctor is updated once every five years by federal authorities, but is published annually. (The Federal Law on Medicinal Products 2004, chapter VIII)

Mass media advertising is allowed only for medicinal products which can be sold without a recipe from a doctor. However, there are rules for what information the advertisement can include and what type of message it can contain. The federal authority has a right to forbid or demand corrections to advertisements, if they do not follow the law. (The Federal Law on Medicinal Products 2004, chapter XI)

5.2.2 Estonia

The pharmaceutical sector is very similar in Estonia to other EU member states. (Jesse, Habicht, Aaviksoo, Koppel, Irs and Thomson 2004, 97) Institutions involved in the pharmaceutical system in Estonia are the Ministry of Social Affairs, the state Agency of Medicines and the Estonian Health Insurance Fund. The Ministry of Social Affairs (SM) is responsible for strategic planning in the field of pharmaceuticals and also in charge of pricing and reimbursement. (Pudersell, Vetka, Rootslane, Mathiesen, Vendla and Laasalu 2007, 10) The State Agency of Medicines (SAM) is fully responsible for the control of pharmaceutical activities, including veterinary products. It also conducts inspections of pharmaceutical services, provides market authorization, approves clinical trials, regulates advertising and promotion of pharmaceuticals, and acts as a supervising body for pharmaceutical activities. The Licensing Board at the Ministry of Social Affairs handles the licensing of all pharmaceutical activities (manufacturing, wholesale, retail, import, export and hospital pharmacy services). (Jesse et al. 2004, 97) The Estonian Health Insurance Fund (EHIF) conducts the reimbursement of pharmaceuticals in practice. SAM and EHIF act as an advisory

body to the Ministry of Social Affairs on the process of reimbursement. (Pudersell et al. 2007, 10)

Reimbursement system

Estonia uses a reference price system. Generally, all pharmaceutical in out-patient care are included in the reimbursement scheme, but most of the OTC pharmaceuticals intended for use in inpatient care and some lifestyle pharmaceuticals (i.e. medicines against obesity, nicotine and alcohol substitution therapy) are excluded. There are some OTC medicines on the list for reimbursement, but they are intended for children with severe illnesses. (Pudersell et al. 2007, 38)

In order to get a drug on a reimbursement list, a manufacturer must send an application to the Ministry of Social Affairs. If the drug is accepted on the list of reimbursed medicines, the price of the medicine is negotiated between the manufacturer and the Drug Policy Unit of the Ministry. If the actual price of the drug is higher than the reference price, the reimbursements for 75%, 90% and 100% are calculated from the reference price. (Jesse et al. 2004, 100)

In Estonia, the reimbursement of pharmaceuticals is usually based on the diagnoses for which they are applied. The Health Insurance Act describes the criteria for classification of diagnoses. For children below the age of 16 and disabled and retired people, there is an additional reimbursement, and for children under 4 years all pharmaceuticals in the list are reimbursed for 100 %. (Pudersell et al. 2007, 39)

Pricing of pharmaceuticals

In Estonia, the manufacturer can freely set the price for their products if the medicine is not on a reimbursement list. However, for wholesalers and retailers there is a regressive cost-plus (profit margin) system, which fixes the maximum mark-ups for both reimbursed and non-reimbursed medicines. The mark-up limits for wholesalers vary from 3 % to 20 % and for pharmacies from 0 % to 40 %. In both of these schemes the mark-up limit decreases as the price of pharmaceutical increases. (Jesse et al. 2004, 99)

The manufacturers' price for reimbursable pharmaceuticals is negotiated between companies and the State Agency of Medicines (statutory pricing). The statutory price levels are set using a reference price system. The reference countries are Latvia, Lithuania, Hungary, Portugal, France and the home country of the manufacturing company. The same pricing system is applied for generics applying for a place on the reimbursement list. If the generic product is already on the list, the original product applying on the list has to be at least a bit cheaper than

the generic previously added on the list. On the other hand if the generic is applying on the list after the original, the price of the generic has to be at least 30 % cheaper than the original. (Pudersell et al. 2007, 29-37)

Drug import and export

For import and export of medicinal products, a special authorization is needed. It is granted by the State Agency of Medicines. This authorization applies on import and export within the European Economic Area. A right to import or export goods requiring special authorization for wholesale trade requires an activity license for wholesale trade in medicinal products an activity license for manufacturing of medicinal products. The company also needs to employ a competent person responsible for the wholesale of medicinal products. If the manufacturing license holder does not employ this competent person, they can only import for their own manufacturing purposes and export their own products. However, only the holders of a manufacturing license are permitted to import medicinal products directly from third countries to Estonia. This authorization is obtained from the State Agency of Medicines, as is the authorization for import and export of narcotic drugs and psychotropic substances, and medicinal products containing such substances. (Medicinal Products Act 2005, § 8)

Establishing a pharmacy

In order to operate a pharmacy, it is necessary to hold a license for such operations. In Estonia there are three different types of pharmacies, which have different rights. A general pharmacy provides pharmacy services for consumers and is marked with word “Apteek” (pharmacy) and with the name of the pharmacy. A veterinary pharmacy provides medicines for animals and a hospital pharmacy is a structural unit of a hospital supplying medicinal products to the hospital. Hospital pharmacies do not have a right to take part in retail trade. Pharmacies may have three branch pharmacies under the same license. These branch pharmacies have to operate under same type the actual pharmacy does. (Medicinal Products Act 2005, § 30)

A pharmacy can only sell medicinal products which have a marketing authorization or an authorization for import and use. In addition to this, pharmacies can sell other products for medicinal purposes and toiletries, as long as it does not interfere with the sale of medicinal products. Medicinal products subject to prescription are delivered by general pharmacies to consumers. A pharmacy is also obliged to inform the recipient of the product of the correct and safe use and preservation of the medicinal product. (Medicinal Products Act 2005, § 31 and 33) Internet pharmacies and mail order of medicinal products are forbidden in Estonia (Pudersell et al. 2007, 23).

The license for establishing a pharmacy is permitted for the applied use only and only for the holder. The license is not transferable. Every separate pharmacy belonging to the holder needs to have a separate license, excluding structural units (i.e. branch pharmacies), which are entered on the activity license of the general pharmacy. The license can be permitted to authorities of executive power, local governments, other legal persons in public law, self-employed persons and legal persons in private law, except commercial associations and non-profit associations. The holder of a license can only hold a license for one type of activity. For example, a person can not hold a license for a pharmacy and wholesale trade at the same time. In addition, a person employed as the head of a pharmacy can not at the same time be employed by the holder of an activity license for wholesale trade or manufacturing of medicinal products and vice versa. This also applies to manufacturing. A person employed as the competent person or a substitute for the competent person of a manufacturer can not be employed by the holder of an activity license in wholesale trade or pharmacy services at the same time. The license is permitted for a defined period of a maximum of five years. (Medicinal Products Act 2005, Division 6)

5.2.3 Latvia

In Latvia, the Ministry of Health is the governmental body involved in the pharmaceutical industry. Three agencies work under the Ministry of Health handling issues concerning the pharmaceutical sector: the State Agency of Medicine, the State Medicines Pricing and Reimbursement Agency and the State Pharmaceutical Inspection. Latvia has adopted a law "On Pharmaceuticals" in 1993 and has updated it in 2005. (Law E0050 2005)

The main tasks of The State Agency of Medicine are the maintenance of the pharmaceutical products register, evaluation of medicinal products and drugs and their registration, quality control and distribution management within the country, and drug import, export and transit control. (VZA) The State Medicines Pricing and Reimbursement Agency was responsible for carrying out the reform of the drug reimbursement system according to European Union directives. Now its main tasks are the analysis and estimation of treatment expenses, approving medicines on the drug reimbursed list (a positive list), overseeing of physician practices on prescription of drugs included in the positive list and assessment of the results. The Agency works together with the State Compulsory Health Insurance Agency. (ZCVA(a),European Observatory on Health Care Systems 2001, 72) The State Pharmaceutical Inspection supervises and controls the manufacture of medical products and the distribution of medical products to wholesalers and pharmacies. (Law E0050 2005)

Reimbursement system

The patient pays a full price for the medicine, except in certain cases defined of regulations by the Cabinet of Ministers. The medicine on the positive list must be registered in the Latvian Drug Register and classified as prescription medicine. A drug included in this list is prescribed by general practitioners and specialists who have an agreement with a sickness fund. These prescriptions are codified and controlled by regional sickness funds. (European Observatory on Health Care Systems 2001, 73) The prescription for a reimbursable drug is valid for 15 days as the receipt for not reimbursable drugs is valid for three months.

Latvia has four reimbursement categories: 100 % for chronic life threatening diseases where use of pharmaceuticals is necessary, 90 % for chronic diseases where use of pharmaceuticals prevents the harm caused to patient's life functions, 75 % for diseases where pharmaceuticals maintain or improve patient's health, and 50 % for diseases where pharmaceuticals are necessary to improve patient's health or vaccines. (Behmane 2007, 8) The reimbursement is provided through pharmacies and patients must pay only the co-payment, except in the case of category 1 where the reimbursement is 100 %. However, the chemist can charge a service fee of 0,10 LVL. (VOAVA(c), ZCVA(b))

Pricing of pharmaceuticals

The prices of the drugs on the positive list are negotiated between the Medicines Pricing and Reimbursement Agency and the manufacturers. If the drug is not on the positive list, the price is based on an unregulated manufacturer's price with limited mark-ups for wholesalers and pharmacies. (European Observatory on Health Care Systems 2001, 72) The mark-up decreases as the price of the medicine increases. Latvia uses mark-up factors which vary for manufacturer's price from 1,10 to 1,18 and for procurement price from 1,10 to 1,40 (Regulation No. 803).

Medicinal Products Import and Export

The importation and exportation of medicinal products from Latvia to the EU and from the EU to Latvia are controlled by the law "On Procedures for the Legal Trade of Narcotic and Psychotropic Substances and Medicinal Products". The law divides narcotics, psychotropic substances and medicinal products into three categories: Register I (includes prohibited substances), register II and register III. The medicinal products in these categories need a prescription in order to be dispensed to patients. A special permit is necessary for trade of medicinal products included in register II or III. (Law E0052) The licence can be issued only to a person who meets the criteria listed in table 17. The regulation controlling import and

export of medicinal products outside the customs territory of the European Union follow the European Directives (Regulation No. 436).

Table 17. The criteria for a person for admitting a licence or a permit for import or export

The permit or the licence shall be issued only if:
1) the legal person in conformity with the requirements of regulatory enactments has appointed a qualified person in respect of the trade of the trade of narcotic and psychotripic substances and medicinal products, who is not ill with a mental illness, narcotics addiction, addition to toxic substances or alcholoism
2) the founders and partners, as well as the pfficials of the legal person have not been convicted for the committing of a criminal offence, as well as have not been administratively convicted for violations, which are associated with trade in narcotic and psychotropic substances and precursors
3) the natural person is not ill with a mental illness, narcotics addiction, addition to toxic substances or alcholism and has not been convicted for the commiting of criminal offence, as well as has not been administratively convicted for violations, which are associated with trade in narcotic and psychotropic substances and precursors

Source: Law E0052

Establishing of Pharmacy

To distribute medicinal products in Latvia, a special licence must be issued for the relevant form of entrepreneurial activity. Pharmacies are divided into four different groups according to the type of and restrictions on their activities. The first group, “General or open type pharmacies”, can distribute medicines to medical treatment and social care institutions as well as for natural persons. The second type, “Closed type pharmacies or pharmacies of medical treatment institutions”, can only distribute medicines for medical treatment institutes. The last two groups can only distribute veterinary medicines. (Law E0050)

A general type of pharmacy can be established by a pharmacist or a local government, which needs to enter into a contract with a certified pharmacist. The form of the pharmacy can be a pharmacist’s practice, a joint practice (a Civil Law company) or a capital company. A pharmacy can not open more than two branches, and these branches must be established outside a city where there are no other pharmacies or pharmacy branches within a five kilometre radius. The name of the branch must indicate the name of the pharmacy. Regardless of the pharmacy type, the pharmacist is personally and professionally liable for losses that have occurred to other persons due to his or her fault. In addition to the licence the pharmacist needs to have premises, equipment, facilities and personnel fulfilling the requirements of regulatory enactments. A pharmacy can purchase medicinal products only from medicinal

product manufacturing undertakings, medicinal product wholesalers, or pharmacies. Only medicinal products registered in the Medicinal Product Register of Latvia are permitted to be distributed in Latvia. Only non-prescription medicaments, which are included on the list, can be distributed outside a pharmacy. (Law E0050) Internet pharmacies are not allowed in Latvia (Behmane 2007, 21).

A pharmacy of any type can be operated only by a specialist who has a pharmaceutical education. At a branch pharmacy, products may be distributed by a health care professional, but if another pharmacy or a branch pharmacy operated by a specialist with pharmaceutical education is opened, the pharmacy without a specialist must be closed within one month. (Law E0050)

The licence can be admitted to a person who has a higher pharmaceutical education acquired in Latvia or in a foreign state, has worked uninterruptedly for three years in a pharmacy in Latvia or in a Member State of the EU or a state in the European Economic Area, does not suffer from a mental illness, addiction to alcohol, narcotic, psychotropic or toxic substances, and has an unimpeachable reputation. The Latvian Pharmacist Society keeps a register of qualified pharmacists and pharmacist's assistants. (Law E0050)

5.2.4 Lithuania

In Lithuania there are four different authorities involved in the pharmaceutical sector: the Ministry of Health, the Department of Pharmacy, the State Medicines Control Agency, the State Patient Fund and the Pharmaceuticals Reimbursement Commission. The Ministry of Health carries responsibility for strategic planning of the pharmaceutical system and has the final decision on whether or not a product is reimbursed and at what price. The Department of Pharmacy handles the implementation of the pharmaceutical policy and ensures that pharmaceuticals are efficient and safe and provided at socially acceptable prices. The State Medicines Control Agency ensures that the pharmaceuticals available in Lithuania are of good quality, efficacy and safety and in line with the National Medicines Policy Program. This includes granting market authorization, classification of prescription status, and as from 22 June 2006, the licensing of pharmacy enterprises (manufacturing, distribution and pharmacies) and the licensing of pharmacists. The State Patient Fund is in charge of reimbursement and of the tendering process of high priced pharmaceuticals. The Pharmaceuticals Reimbursement Commission, which consists of members from the

previously mentioned authorities, works as an adviser for the Ministry of Health on reimbursement decisions. (Krukiene and Alonderis 2007, 14-17)

Reimbursement system

Drugs are free at the inpatient sector, but on the outpatient sector there is a complicated reimbursement system for prescribed drugs. Lithuania has a positive list for pharmaceuticals, which are reimbursed. There are certain eligibility criteria for patients in order to get the reimbursement. These criteria are based on the severity of the disease and on certain social factors. Reimbursements of pharmaceuticals can be 100%, 90 %, 80 % or 50 % of the price. However, only the price of insulin is reimbursed totally. For all other products the maximum reimbursement is the reference price. Consumption of reimbursable pharmaceuticals is growing and thus all additional money for health sector is used to cover the costs. (Krukiene and Alonderis 2007, 41-47)

Pricing of pharmaceuticals

The prices of pharmaceuticals which are not reimbursed are not regulated (i.e. these pharmaceuticals can be priced freely at all price levels). For reimbursed pharmaceuticals there are two pricing systems: one for the prices in the distribution channel and another for the base price (reference price) for reimbursement. In the distribution channel, the manufacturer price is set according to the reference price in the six European Union countries (Latvia, Estonia, Czech Republic, Slovakia, and Hungary). For wholesale and retail prices in the distribution channel, the price for reimbursed pharmaceuticals is regulated by maximum mark ups. The reference price for reimbursement is calculated according to the cheapest price of the product weight or activity unit. If a suitable pharmaceutical can not be found from Lithuania, comparison is carried out to the price in the manufacturer's country. This way the patient has to pay a co-payment even in case of 100 % reimbursement (excluding insulin, which is totally reimbursed). (Krukiene and Alonderis 2007, 30-31)

Drug import and export

All medicinal products supplied to the market in Lithuania have to be registered in the Register of Medicinal Products of the Republic of Lithuania, in the Community Code of Medicinal Products, or entered in the List of Parallelly Imported Medicinal Products. Only a legal person with a wholesale distribution license can import medicinal products without market authorization from the European Economic Area and a bearer prescription medicinal product from a third country. A parallel import is possible, if a medicinal product is identical to the medicinal product already registered in Lithuania or sufficiently resembles it. Parallel import needs a permit, which can be issued only to a legal person who has a wholesale

distribution license. There are no other restrictions for import or export within the European Economic Area (excluding narcotic and psychotropic substances, which have their own resolution for import and export). For importing from a third country, a legal person needs a manufacturing license. (Law X-709 2006, chapter III)

Establishing a pharmacy

To establish a pharmacy a pharmacist's practice license is needed. It is issued for an indefinite period by the State Medicines Control Agency. In order to obtain a license, the person must submit an application, a diploma certifying the acquired professional qualification of a pharmacist, some other documents established by the Rules of Licensing a Pharmacist's Practice, and have a suitable premises and equipment complying with the requirements laid down by the Minister of Health. In addition, if more than a year has passed since graduation, the person must submit documents ensuring that his qualification has improved according to the procedure established by the Minister of Health. In Lithuania there is a state fee for issuing the license. (Law X-709 2006, chapter II and VIII)

In Lithuania, there are six different types of pharmacies: community pharmacies, production community pharmacies, hospital pharmacies, production hospital pharmacies, university pharmacies and charity pharmacies. In addition to medicinal products, pharmacies can sell pharmacy goods established by the Minister of Health. The law also requires that the name of a pharmacy must contain the word "pharmacy (pharmacies)". The word "pharmacy" or its translation to other languages can not be used by any other type of activity. The same obligations also apply to branch pharmacies. (Law X-709 2006, chapter VIII)

5.2.5 Summary

In Russia, Estonia, Latvia and Lithuania, exporting and importing of medicinal products needs some type of a permit and medicinal products need to be registered in that country to be imported exported or distributed. The main difference is that in Russia, the government has a legislative right to add additional duties on medicinal products imported if they see that this product is a threat to domestic products or disturbs the market in another way. Opening a pharmacy requires a license in all of these countries and it is granted for a defined period, except in Lithuania. In order to get the license, the person must have necessary education and deliver suitable premises and equipment. It is common for these countries that prescription medicines can be distributed to citizens only through pharmacies. However, the range of other products sold through pharmacies varies. The categorizing of pharmacies also differs from

country to country. Different types of pharmacies have different regulations and rights to sell medicinal products. There are also separate pharmacies for citizens and for hospitals. A reimbursement system is present in all of these countries. The systems have similar features: it is based on a list of reimbursable pharmaceuticals (established by the government) and on certain criteria for diseases for which the pharmaceuticals are prescribed. However, many differences exist in these systems, especially in funding and in the efficiency of the system. The pricing of pharmaceuticals is also regulated in these countries. All the countries have a separate mechanism for pricing reimbursable and not reimbursable medicines. Pricing limitations are different for manufacturers, wholesalers and for retailers.

5.3 Pharmaceutical Markets

5.3.1 Russia: from regional to national

The Russian pharmacy market grew about 10 % from 2006 to 2007. It is estimated that the pharma market value was 11,5-12 bln USD in 2007. Pharmexpert, a Russian market research centre specialized on pharmaceutical market, forecasts that the market growth annually will reach 12-13 % by 2020. The most optimistic forecasts predict growth rates of 18-22 % annually by 2020. Pharmexpert also sees that in 2020 about 80 % of the market will be controlled by pharmacy chains. (Inpharmacia 2007, 7)

In the Soviet Union, domestic production covered most of the pharmaceutical consumption. Some products were imported from Central European countries. As the Soviet Union collapsed, pharmaceutical production divided between the new independent states (Russia, Belarus and Ukraine, and in lesser extent Kazakhstan and Kyrgyzstan). However, the industry which remained in Russia was out-dated and poorly maintained. As Russia transformed towards market economy, several factors changed and made pharmaceutical production unprofitable and the production levels declined. Also the substance production levels declined about 60 % in the period to 1997. All this increased the amount of imported substances and pharmaceuticals drastically. At the end of 1990s, 93 % of pharmaceutical producers were relying on imported substances and the amount of imported products rose to 65 %. (Pharmaceuticals 2003)

As domestic producers were forced to raise their prices, pharmaceutical wholesale became a very lucrative business in 1993-1994. Profitability reached 30-40 % of sales. Consumer demand also continued to grow. Thus, the number of wholesalers in pharmaceuticals rose from 100 in the late 1980s to 4000 in 1997. The market was dominated by 20 large

wholesalers, who covered 50 % of the market. However, the financial crisis in 1998 also had a great impact on the pharmaceutical industry: total losses for distributors and pharmacies were estimated to be 500 million USD and the debt of Russian distributors to Western manufacturers was estimated to be 360 million USD. (Maksimova 1998)

The amount of imported medicines has continued to grow (table 24). As seen from table 18, the growth has been on a high level and was 45 % between 2005 and 2006 reaching 6,03 billion USD. (Drug Imports to Russia: Results of 2006) The medicine imports to Russia reached 2,47 billion USD in the first six months of 2007 and the ratio of imported/local medicines was 74% / 26 % in the first half of 2007 (Inpharmacia 2007, 37,39). The growth of medicine import was only about 6 % between 2006 and 2007. This is largely explained by the changes in customs registration procedure regarding pharmacies, which came into force on 1 January 2007. According to the new customs regulations, suppliers are obligated to provide safety compliance declarations for each drug lot when passing customs. This way the responsibility for drug quality and authenticity is transferred to manufacturers. The reason for this change is the goal to decrease the number of counterfeit and low-quality medicines in the Russian market and to adapt regulations and the legal base to the WTO standards. (Inpharmacia 2007, 25-26)

Table 18. Import volume in the Russian pharma market, 2002-2006

	Import volume, bln	
Year	**USD**	**Growth %**
2002	1,43	n.a.
2003	2,21	55
2004	2,76	25
2005	4,17	51
2006	6,03	45

Source: Drug Imports to Russia: Results of 2006

Table 19 presents the top 10 importers by volume of import to Russia in 2006. These top 10 importers account for about 50 % of the total import volume. The top 2 companies, Protek and SIA International, had over 20 % share of the total import volume in 2006. These two companies also stayed in the lead at the beginning of 2007, and kept an over 20 % share of the total import value. (Inpharmacia 2007, 25-26, Drug Imports to Russia: Results of 2006) The top 3 importers are Russian companies and the rest of the top 10 companies are foreign.

Table 19. Top 10 drug importers by volume of import to Russia, 2006

Rating 2006	Rating 2005	Importer	Total import volume share, 2006, %
1	1	Protek	11,25
2	2	SIA International	10,45
3	3	Items Warehouses	7,48
4	4	Aventis Pharma	4,76
5	7	Servier	4,31
6	5	Orfe	4,28
7	12	Solvay Pharma	3,39
8	10	Roche-Moscow	2,94
9	23	Novartis Pharma	2,83
10	13	IHCC	2,70

Source: Pharmexpert: Drug import to Russia: Results of 2006

There are about 6 national, 18 regional and over 60 local pharmaceutical wholesalers in Russia (Pharmexpert). The concentration among wholesalers is supported by the state-run reimbursement program (DLO), as large wholesalers are chosen to supply the program based on price and scale and they benefit from the surge in purchasing. In 2006, about 80 % of the total market was accounted by six wholesalers (Protek, SIA International, Shreya, Rosta, Apteka Holding and Biotek). (Insight 2007, 4) The rating of top 10 pharmaceutical distributors was done by Pharmexpert. In this rating, pharmacies are classified to national, interregional and regional distributors by their average sales volume for 6 months, the scale of branch/subsidiary network, and by the number of Federal Districts where the company's certified warehouses are located. The top 10 distributors of this rating are presented in table 20. The top 7 companies are national, which means that their average sales volume for 6 months is over 750 mn RUB, they have a branch/subsidiary network of minimum 20 actors and they have certified warehouses in 7 Federal Districts. There are three interregional distributors in the top 10. Their average sales volume for 6 months is about 300 mn RUB, they have a branch/subsidiary network of about 5 actors, and they have certified warehouses in 2 Federal Districts. The first regional distributor is on 31st place on the rating. The rating includes 57 distributors. (Aggregated rating of Russian pharmaceutical distributors in 1st quarter 2007, 2) Tamro Group has a 42,5 % ownership of ROSTA. Tamro is also involved in the Baltic States markets. (Tamro 2006) In March 2008 Oriola-KD bought 75 % of Vitim and Moron. Vitim is a Russian pharmacy operator, which operates mainly in Moscow, and Moron is a Russian pharmaceutical wholesale company. (Seppälä 2008)

Table 20. Top 10 Pharmaceutical distributors in Russia by aggregated rating 2007

Rating 1st quarter 2007	Distributor	Category
1	Protek	National
2	SIA International	National
3	ROSTA	National
4	Biotek Group	National
5	Katren	National
6	Alliance Healthcare (Apteka Holding)	National
7	Shreya Corporational	National
8	Moron	Interregional
9	Intercare Group	Interregional
10	Health-M	Interregional

Source: Pharmexpert: Aggregated rating of Russian pharmaceutical distributors in 1st quarter 2007

The amount of FDI in the Russian production sector has been growing from a very low base to account for an ever more significant part of non-oil and gas investment in the economy. Pharmaceutical production has also received more and more interest from foreign companies. For example Servier, France's second largest drug producer has recently completed construction on a 49 mn USD pharmaceutical plant in Russia in collaboration with Hungary's Egis and the Polish Plopharma, which bought Russian drug producer Akrikhin in May 2007. Also UK based firms Pfizer and GlaxoSmithKline are interested in investing in Russia. Pfizer is interested in building a plant or purchasing a high profile player, and it is reported that GlaxoSmithKline is negotiating with Verofarm, which is the generics production arm of pharmacy group Pharmacy Chain 36,6. Alliance Boots, a UK-based pharmacy retailer, acquired Apteka Holding a pharmaceutical wholesaler in Russia in February 2006. Alliance Boots has entered the Russian pharmacy retail market by using its concept Alphega. Alphega is an alliance of independent pharmacies supplied by Alliance Healthcare the leading pharmaceutical wholesaler in Europe, which is a member of Alliance Boots the leading international pharmacy-lead health and beauty group. Pharmacies are allowed to buy products from other distributors, but they receive significant discounts from Alliance Boots. The Alphega system includes over 300 pharmacies in Europe and has 35 pharmacies in Russia. Apteka Holding was acquired to supply the pharmacies in the Alphega system in Russia. (Insight 2007, 4; Alliance-Healthcare 2008)

Today, Russia has approximately 20 000 pharmacies and about 5 000 smaller outlets like kiosks (PWC 2006, 7). The sector is consolidating and according to Business Monitor

International, pharmacy chains are expected to control around 65 % of the market by 2010. Today, about 84 % of all pharmacies are "closed" pharmacies, meaning they have a general selection of medicines and other basic goods. (Insight 2007, 4)

The rating of pharmacies by sales volume is presented in table 21. Pharmacy chain Apteki 36.6 rates as number one and is the only pharmacy chain categorized as national. The categorizing is done by Pharmexpert and it divides pharmacies into national, interregional and regional. The same categorizing was used for distributors, but the measures for pharmacies are somewhat different. Pharmacies are categorized by average sales of the last three months and by the number of Federal Districts where the drugstore chain operates. The average sales of three months for a national pharmacy chain are 1500 mn RUB and the number of Federal Districts is 6. For interregional pharmacy chains, the equivalent figures are 400 mn RUB and 3 Federal districts, and for regional pharmacy chains up to 300 mn RUB. Rigla (2) and O_3 (5) are both owned by Protek Group, which is also the top importer and distributor of pharmaceuticals in Russia. The acquisition of pharmacy chain O_3 was the first time an interregional chain has been sold in Russia. (Russian drugstore chains rating: Results of 2006)

Table 21. Rating of pharmacy chains in Russia by sales volume in 2006

Rating	Drugstore chain	HQ Location	Clasifiction	Number of pharmacies	Total sales volume*
1	Apteki 36.6	Moscow	National	838	1,000
2	Rigla	Moscow	Interregional	490	0,654
3	Pharmacor	St Petersburg	Regional		0,355
4	Implozia	Samara	Interregional	372	0,314
5	O3	Moscow	Interregional	146	0,307
6	Vita	Samara	Regional		0,266
7	Staryi Lekar	Moscow	Regional		0,242
8	Gubernskie Apteki	Krasnoyarsk	Regional		0,228
9	Biotek	Moscow	Interregional	238	0,223
10	Pervaya Pomoshch	St Petersburg	Regional		0,212
11	Doctor Stoletov	Moscow	Interregional	262	0,175
12	Zdorovye Lyudi/ Natur Product	St Petersburg	Interregional	188	0,167
13	Lipetskpharmacia	Lipetsk	Regional		0,142
14	Samson Pharma	Moscow	Regional		0,142
15	Pharmacia	Tyumen	Regional		0,119
16	Pharmaland	Ufa	Regional		0,117
17	Zdravnik	Ekaterinburg	Regional		0,084
18	Rodnik Zdoroviya	St Petersburg	Regional		0,074
19	Novaya Apteka	Khabarovsk	Regional		0,068
20	Kurganpharmacia	Kurgan	Regional		0,065
21	Pharmaimpex	Izhevsk	Regional		0,065
22	Kazanskie Apteki	Kazan	Regional		0,059
23	ZEM Pharm	Moscow	Regional		0,056
24	Avicenna	Irkutsk	Regional		0,055
25	Nizhniy Novgorod Drugstore Chain	Nizhniy Novgorod	Regional		0,050

* Relative to the leader's sales volume.

Source: Pharmexpert: Russian drugstore chain rating: Results of 2006

In Russia, the large pharmacy chains have so far been striving for the growth through regional development at the lowest cost possible, instead of competing with each other. However, this is expected to change as foreign companies gain market knowledge and are getting ready to enter the retail market. According to Pharmexpert the change can already be seen as the management of a few pharmacy chains (e.g. Apteki 36.6, Rigla, Implozia and Doctor Stoletov) announced large-scale investment on development in 2006.

There are significant differences between market areas in Russia. Table 22 presents the pharmacy sales development from recent years for different regions of Russia. It is clear that the growth in the Moscow area has been very slow when compared to other regions. Also Business Monitor International states that Moscow markets are starting to be saturated. In Moscow, the ratio of pharmacies to inhabitants is one pharmacy per 2900 inhabitants, which is beyond the level associated with market saturation. (Insight 2007, 4) However, the sales are about three times bigger in Moscow than in the second largest market St Petersburg.

Table 22. Pharmacy sales in different regions of Russia

	Pharmacy sales, mln USD (in pharmacy purchasing prices)			
Regoin	**2005 Sep.**	**2006 Sep.**	**2007 July**	**Change, % 2005-2007**
Moscow	71,2	79,5	73,4	3,1
St.Petersburg	18,5	22,5	21,3	15,1
Krasnodar region	7,8	9,9	17,0	117,9
Novosibirsk region	7,2	11,4	14,1	95,8
Tatarstan	9,9	10,9	12,3	24,2
Rostov region	6,1	9,4	11,1	82,0
Krasnoyarsk region	6,3	8,8	10,7	69,8
Voronezh region	5,2	6,3	6,9	32,7
Tyumen city	3,1	4,0	5,3	71,0
Prem city	3,5	4,0	5,0	42,9

Source: Association of International Pharmaceutical Manufacturers in Russia

In 2006, the consumption of pharmaceuticals per capita was about 81 USD, which is about 2 % of the average allocated income per Russian citizen. The equivalent figure for European countries is about 7 % and for USA 9 %. (Russian Pharmaceutical Market in 2006; Preliminary Results)

The average price of medicine in the commercial sector was 1.45 USD. The price of locally produced drugs is clearly lower, on average 0,50 USD. The average price for imported drugs was 3,5 USD in 2006. Figure 14 presents the segmentation of medicine prices in the commercial sector. The figure clearly demonstrates that most pharmaceuticals are imported,

and thus more expensive. The balance between Over-The-Counter (OTC) medicines and prescription medicines was 50,1 to 49,9. The balance has not changed remarkably in recent years. (Commercial pharmaceutical market in Russia: Results of 2006)

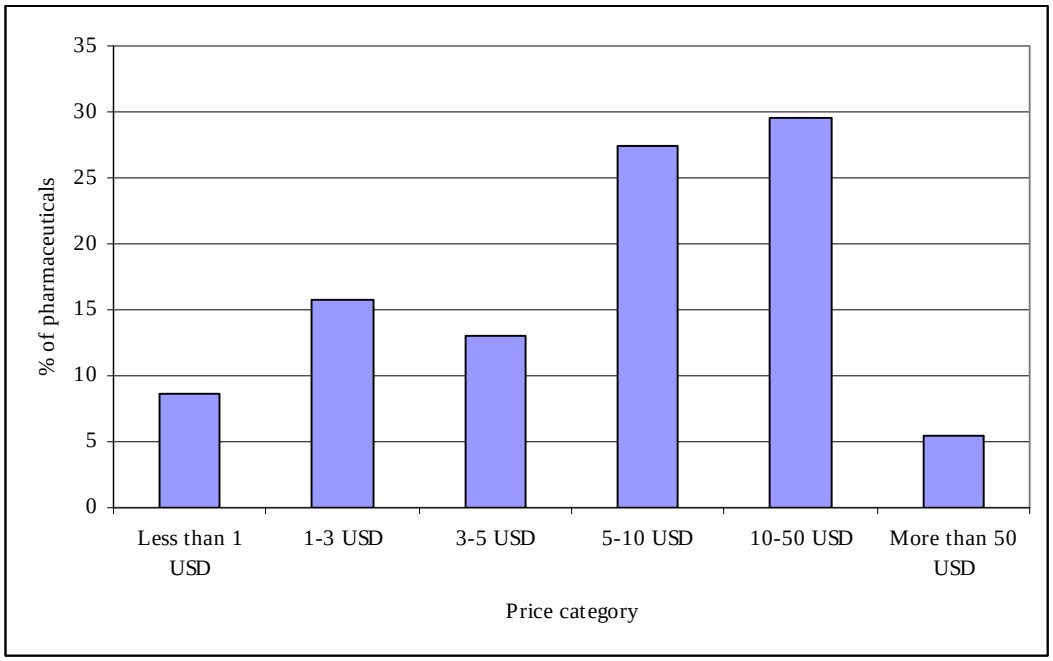

Figure 8. Price segmentation of Russian retail pharma markets, 1st half 2007, % (Inpharmacia 2007, 38)

Russian legislation does not restrict on-line pharmacies. In Russia there are typically one or more on-line drugstores in each big city. The first project of establishing an on-line pharmacy was launched in 1997 in Moscow even though the first attempts were made in 1995. Today, the total number of this type of projects is about 100. The market of on-line pharmacies is very fragmented and many of them operate only on a regional level. According to Pharmexpert, this is due to high transportation costs, for example delivery from Rostov to Don may cost 600-700 RUB and take 3-7 days. Clearly, the customers are not willing to pay this, if the medicine is available in a local drugstore. Some pharmacy chains also have their own on-line services. The national pharmacy chain 36.6 Apteka's on-line pharmacy ranked 7th by citation index. Even though the pharmacy chain is national, its on-line pharmacy operates only in the Moscow area. The advantage for the seller is that premises for customers are not needed. The operational structure of on-line pharmacies is quite similar to normal pharmacies, but four different types of organizational principle can be found. (Drugs on-line 2007)

The legislation for e-commerce is lagging behind, but the current law regulates most e-commerce activities. Pharmaceutical sales are also regulated by the Federal law "On Pharmaceuticals", which was last updated on 16 October 2006. However, this law does not mention the possibility to sell medicines on-line. Thus, some market participants classify the activity of on-line pharmacies as illegal. The problem today is that everyone can buy medicines from these on-line stores without a physicians' prescription. (Drugs on-line 2007)

Pharmexpert does not see on-line stores as a serious threat to pharmacies and estimates that pharmacies will use more information technology in the future, but mainly in context of advertising and creating new customer-oriented services. (Drugs on-line 2007)

One major problem in Russia is counterfeit medicines. Counterfeit medicines are substandard pharmaceuticals, which are deliberately and fraudulently mislabeled with respect to identity or source. They can be either generic or branded products and can include correct ingredients but fake packaging, wrong ingredients, miss active ingredient or have an insufficient amount of active ingredient. (WHO 2006, 1)

Russians have already adept at burning pirated DVD's, rolling their own Marlboro cigarettes and printing knockoff Nike T-shirts and now they have moved to more challenging task of making fake prescription medicines (Kramer 2006). Doctor Alexander Bykov, a counterfeit medicine specialist from French pharmaceutical company Sanofi-Synthelabo, estimates that about 12 % of all the medicines in Russia are counterfeit (Apteekkari 2005, 26). The Russia's Federal Service for Health Sphere Supervision (FSHSS) reported that the share of counterfeit medicines was 10 % of all medicines in 2006 (WHO 2006, 1).

The widespread problem has a huge effect on companies' profits. One non-European company (whishes to be anonymous) estimates that it has lost 20 % of its profits during four years. At the moment the problem seems to be very difficult to solve. It is assumed that companies selling these illegal medicines have bribed authorities and decision makers, and that many of the operators in the pharmaceutical business in Russia do know where the counterfeits are produced, but are not doing anything to prevent it. (Apteekkari 2005, 26-27) One reason for this might be that the counterfeits produced in Russia are of very high quality. The underground prescription medicine market in Russia is distinguished for being at the forefront of a new trend of exceedingly high-quality fakes. For example Pfizer's vice president for global security, John Theriault said "The counterfeits we got in the survey were the finest counterfeits I've ever seen." referring to private survey run by Pfizer in Russia. The current perception is said to be that if nobody is harmed, what is the problem? The bigger fear

is that the publicity over counterfeit medicines might get customers alarmed and the sales of medicines would decline. (Kramer 2006)

In addition to domestic productions counterfeit medicines are imported for example from Thailand, China and Philippines. One of the reasons is that the distribution is poorly supervised as the distribution system exploded from one central distributor to a net of 1500 distributors when Soviet Union collapsed. World Health Organization (WHO) states that the counterfeit medicines are a bigger problem in regions where the regulatory and legal oversight is weakest. In industrial countries the counterfeit medicines have less than 1 % market share as the equivalent figure for many countries in Africa and in parts of Asia and Latin America is more than 30 %. (WHO 2006, 2)

Analysts have high hopes for the WTO accession, which is expected to improve the situation tremendously. The WTO membership would improve the intellectual property protection and especially the data exclusivity, which is not currently provided by Russian legislation. (PhRMA 2007)

In 2006, Pharmexpert realized a research "Drugstore Census", which studied the drugstore institutions in Moscow. The study included over 2000 drugstores from Moscow. The study brought up some interesting aspects of pharmacy markets.

The study showed that a majority of pharmacies were private (89%) and only 11 % were state enterprises. Most of the private pharmacies were limited liability companies (66%). About 55 % of the pharmacies were part of a pharmacy chain. Still, the market share of each chain stayed low: the largest chain Stolichnye Apteki had a 7 % share and the second Apteki 36.6 had a 5 % share of the Moscow region's markets. Most of the pharmacies were closed type of stores (69 %). Mixed retailing form amounted for 25 % and only 6 % were of an open type. One reason for this is that the open type of stores needs to be equipped with autonomous antitheft systems and the presence of security firm employees is also necessary. Most of the pharmacies were well organized and only in 20 % of them, the products were placed chaotically in shop windows and on stands and were not attractive to customers. 49 % of pharmacies in Moscow do not allow discounts. Most pharmacies (47 %) are open from 9:00 a.m. to 11:00 p.m. 7 days per week. Only 10 % of pharmacies apply 24/7 opening hours. (General Results of Drugstores Census Research Project 2007)

5.3.2 Estonia: tightening competition

The Estonian pharmaceutical market was worth 146 million EUR in 2006 and market growth was 12 % from the previous year (Tamro Viro 2006/07). The growth was 9 % in 2005 and 19 % in 2004 (Ravimiamet 2007). The market is expected to continue to grow.

In 2005 there were only six pharmaceutical manufacturers in Estonia, and most of them are dealing with packaging. One of them is the only Soviet time pharmaceutical manufacturer Tallinn Pharmaceutical Factory, which was bought by Grindex, a Latvian company, in 2000. (Pudersell 2007, 19) As there are only few manufacturers, it can be assumed that most of the medicinal products sold are imported. However, the Estonian State Agency of Medicines releases information about the domestic markets only and no actual shares of imported and domestically produced medicinal products could be found.

In 2006, there were 53 medicinal products wholesalers in Estonia, of which 8 distribute only veterinary medicines (Ravimiamet 2006). The top 2 wholesalers (Magnum Medical and Tamro Eesti) had a market share of 56, 9 %. The top seven wholesalers are shown in table 23. It is clear that the top 2 wholesalers have a very strong position in the market. However, Nordic Pharma (11,6 %) and Apteekide Koostöö Hulgimüük (12,9 %) have been able to capture quite remarkable market shares during 2005 and 2006. In 2006, Magnum Medical's sales amounted 113 million EUR and Tamro's sales were 60 million EUR. (BBN 2006, Tamro Viro 2006/07). Magnum Medical is owned by New European Investment Ltd. However, according to Baltic Business News, the company is actually owned by Finartis, a company owned by Rustam Aksenenko, the son of the former Russian minister of railways.(BBN 2006) Tamro is owned by the international group PHOENIX (Tamro 2008).

Table 23. Top 7 wholesalers in Estonia by share of human medicinal products sales

Wholesaler	2000	2002	2004	2006
Magnum Medical OÜ	38,00 %	48,02 %	42,38 %	26,70 %
Tamro Eesti OÜ	32,96 %	30,89 %	29,86 %	30,20 %
AS TopMed	7,85 %	4,68 %	4,62 %	4,40 %
AS Pharmac MS	3,92 %	3,15 %	3,03 %	1,90 %
AS Oriola	4,53 %	3,44 %	5,81 %	6,70 %
OÜ Nordic Pharma (Armila Eesti OÜ)	3,56 %	2,50 %	4,74 %	11,60 %
Apteekide Koostöö Hulgimüük OÜ	-	-	-	12,90 %

Source: Ravimiamet: Statistics of Medicines 2006

The number of pharmacies was 524 in 2006. The number of pharmacies has doubled since year 2000 (see figure 15). However, from 1 January 2006, establishing a pharmacy in towns was restricted. It is now forbidden to establish a new pharmacy in towns which have less than 3000 inhabitants per pharmacy or in a rural area, if a pharmacy already exists within a 1 km radius. (Ravimiamet 2006)

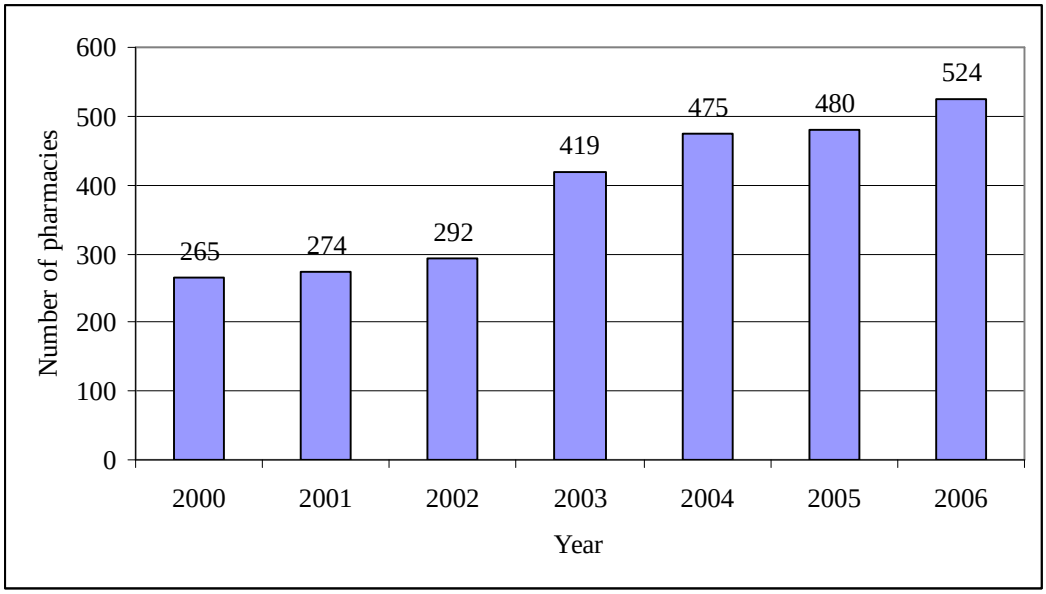

Figure 9. Number of pharmacies in Estonia (Pudersell et al. 2007, 21)

The total turnover for all pharmacies was 2600 million EEK in 2006 and for general pharmacies 2224 million EEK. The growth for general pharmacies turnover was 13 % from the previous year. The turnover consists of the sales of medicinal products and other goods sold in pharmacies (e.g. medical devices, food supplements, herbal products and cosmetics). Table 24 presents the distribution of medicinal products sales. From the sales of prescription medicines, about 90 % are reimbursed medicines and about 37 % of the sales of the reimbursed medicines is paid by the patient. The share of OTC products of the total sales of medicines is 23 %.

Table 24. Sales of Medicinal Products in general pharmacies(millions EEK)

	2000	2002	2004	2006
		millions EEK		
Medicinal products total	1 154	1 365	1 884	2 229
Prescription only medicines	763	1 033	1 471	1 718
Reimbursed medicines	649	950	1 326	1 538
Products paid by sick fund	438	658	855	967
Products paid by patient	211	292	472	570
OTC products	385	328	408	505
Veterinary medicines	6	4	6	6

Source: Ravimiamet 2007

The top 10 pharmacies by sales in 2005 are presented in table 25. Koduapteek OÜ ranked first. It is a retail organization, which is owned by the wholesaler Tamro. Numbers 2 and 3 are part of the pharmacy chain Apotheka, which is a part of Magnum Medical. Also other pharmacies in the top ten belong to the pharmacy chain Apotheka, excluding Koduapteek, Patrika and Humax Invest. Humax Invest is a smaller pharmacy chain and Patrica belongs to the Farmacia pharmacy chain. In some cases, e.g. Aimi Saare Apteek OÜ, the pharmacies in the list are smaller regional chains acquired by a bigger chain. In the case of Aimi Saare Apteek, the chain has five pharmacies in Pärnu and it belongs to Apotheka, which is a joint pharmacists chain owned by Magnum Medical (Saare Apteek 2007).

Table 25. Retail sales of pharmaceuticals in Estonia, 2005

Company	Sales th EEK
Koduapteek OÜ	130 148
Raekoja Apteek OÜ	105 863
Tallinna Mustamäe Apteek AS	104 780
Stroomi Apteek OÜ	80 335
Jannseni Apteek OÜ	78 754
Tallinna Linnaapteek AS	69 017
Patrika OÜ	53 014
Humax Invest OÜ	49 440
Tartu Uusapteek OÜ	39 461
Aimi Saare Apteek OÜ	38 987

Source: Connectus 2006

Koduapteek OÜ has strengthened its position at the market and is actively seeking for new acquisitions (Tamro Viro 2007). Tamro's pharmacy chain Apteek1 is the biggest pharmacy chain in Estonia and includes 185 pharmacies operating all over Estonia (Apteek1 2007). Tamro also has operations in Sweden, Denmark, Norway, Finland, Poland, Latvia, Lithuania

and Russia. (Tamro 2008) Apotheka chain belongs to the largest wholesaler, Magnum Medical. It has about 180 pharmacies around Estonia.

5.3.3 Latvia: consolidation

In 2006, the sales of medicines and substances amounted LVL 195,61 million. The growth from the previous year was 15,6 % (In 2005 – LVL 169,19 million). However, the growth was a bit more moderate than last year. From 2004 to 2005 the growth was 22,8 % (in 2004 the sales of medicines and substances was LVL 137,78 million). (SAM Statistics Publication 2006, SAM Archive 2005)

The total turnover of medicines consumed has been growing through the last few years (see table 26). In 2006, the total turnover was about LVL 148,4 million and the growth from the previous year was 15,2 %.

Table 26. Total turnover of medicines consumed (in LVL)

	Total turnover of medicines consumed	Growth from previous year, %
2003	86 084 744	
2004	112 693 882	23,6
2005	125 877 705	10,5
2006	148 359 323	15,2

Source: Zalu paterina statistika 2006

In Latvia, 94 % of medicines are imported or manufactured by foreign companies and only 6 % come from domestic producers. There has been no change in this pattern for years. The whole pharmaceutical market has been growing, but the growth of Latvian manufacturers and other manufacturers have been different (see figure 16). In 2006, the growth was quite even, but in 2005, domestic manufacturing increased its turnover more. In 2004, foreign manufacturers grew more rapidly. However, it is clear that foreign manufacturers control the market and Latvian manufacturers only have a minor share of markets. The largest domestic manufacturer in Latvia is Grindeks.

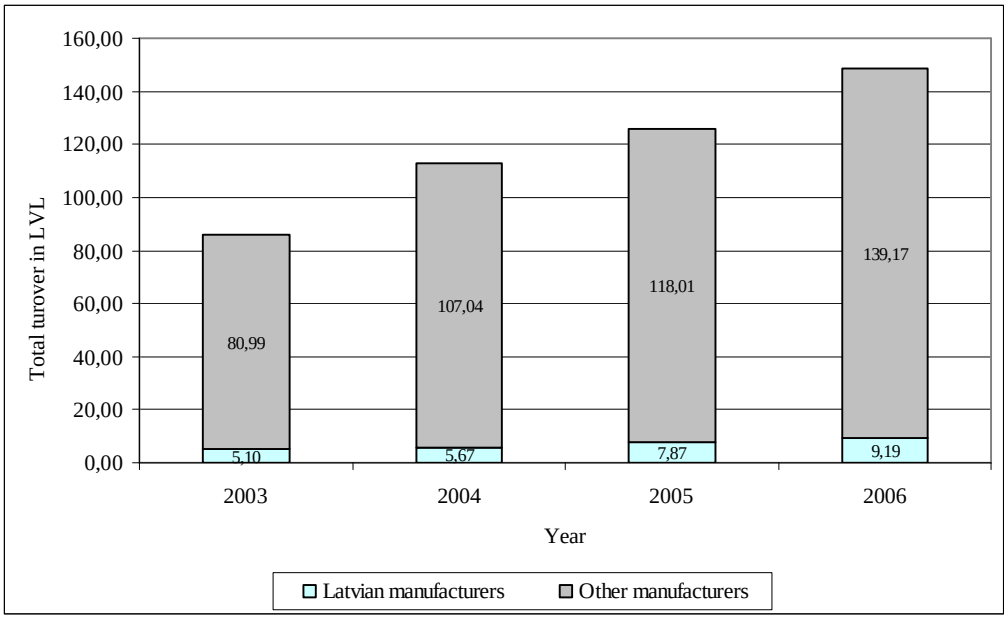

Figure 10. Total consumption of medicines by manufacturers origin (in LVL) (SAM Statistics Publication 2006)

According to International Business Monitor Health (2007/16, 8), the top five manufacturers by sales were GlaxoSmithKline (United Kingdom), Pfizer (United States), Sanofi-Aventis (France), Berlin Chemie-Menarini (Germany) and Roche (Switzerland) in the first quarter of 2007.

Imports of medicinal products have been growing through the 2000s (see figure 17). The growth was a bit stronger during 2003 – 2006 than in 2000-2003. However, the growth was very moderate in 2006, when compared to 2005.

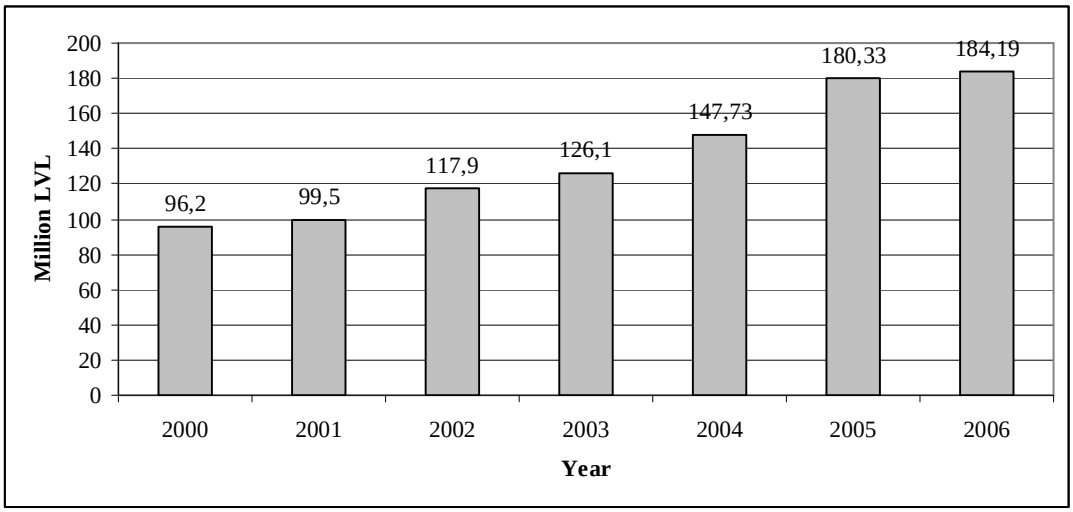

Figure 11. Imports of medicinal products to Latvia, 2000-2006, in million LVL (SAM Statistics 2006)

Imports from countries outside the European Economic Area have radically decreased when Latvia joined the European Union in 2004 (see figure 18). The decline of these imports has since continued. Because of this, the total amount of licences issued also fell after joining EU: the total amount of licences issued in 2003 was 2259 and in 2004, 1519 licences. However, after the rapid increase in the number of licences issued for import of unauthorised medicines in 2006, the amount of licences issued grew close to the 2003 amount of 1863 licences.

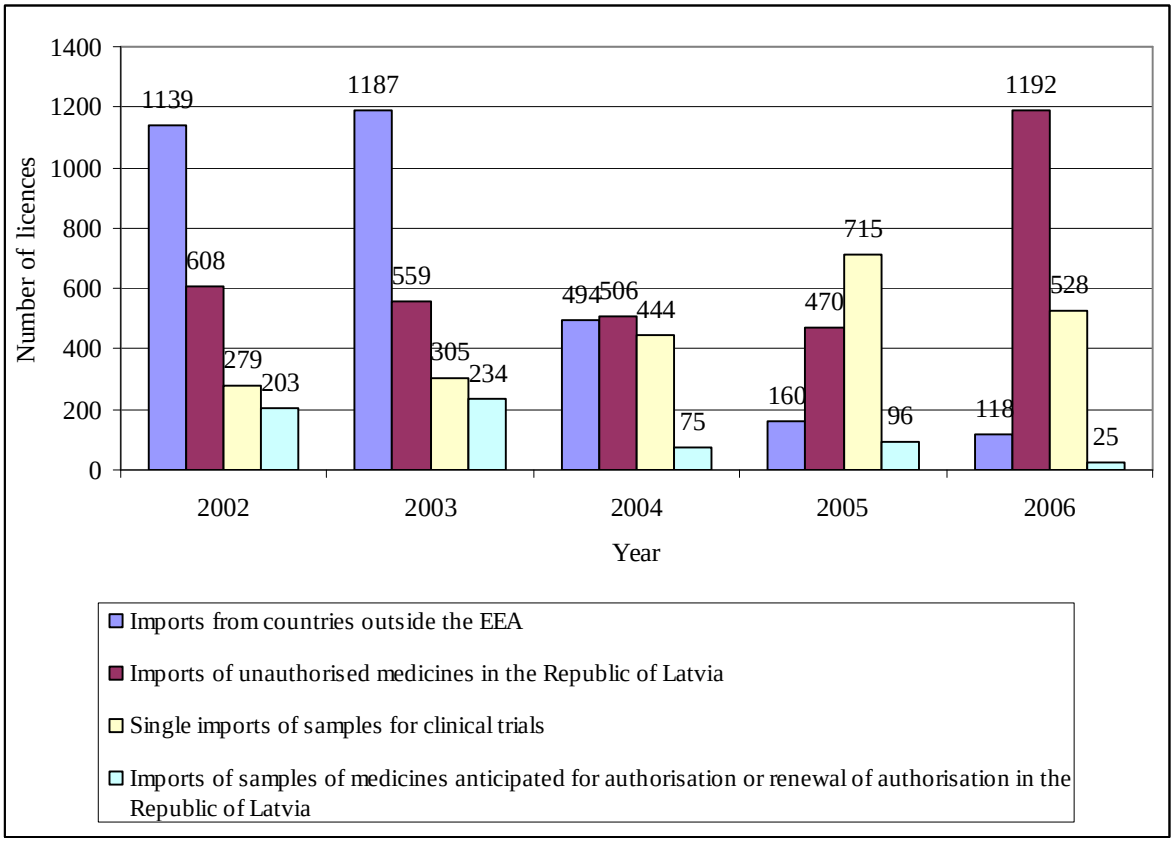

Figure 12. Number of licences issued for imports of medicines in Latvia, 2006 (SAM Annual Report 2006, 22)

According to Latvia's State Agency of Medicines (Statistics 2006, 10) the three biggest wholesalers in 2006 by sales to general pharmacies were Recipe Plus (42 %), Tamro (26 %), and Magnum Medical (14 %). The remaining 18 % market share was divided between 10 other wholesalers.

Recipe Plus is a Latvian company active in retail and wholesale of drugs. The company operates on the Baltic market. (Recipe Plus 2008) Tamro is part of a pan-European company PHOENIX. Tamro is a pharmaceutical wholesale company. It operates in the Nordic countries, Baltic States, Poland and in Russia through minority shareholding. It delivers

products to more than 700 pharmacies, 100 medical institutions, and 300 family doctors' practices in Latvia. (Tamro 2008) Tamro also owns the pharmacy chain Gimenes Aptieka. It has 26 pharmacies in Latvia – in Riga, Daugavpils, Ventspils, Liepãja, Jũrmala, Mãrupe and Ãdaži. (Gimenes Aptieka 2008) Magnum Medical is an Estonian corporation involved in wholesale, retail, logistics, and packaging of pharmaceutical and other health related products. It has operations in Estonia, Latvia, Lithuania, and Finland. In Latvia, Magnum Medical operates as a wholesaler and has about 600 clients, for example Grindeks and Berlin Chemie. (Magnum Medical 2008)

The number of pharmacies has stabilised in Latvia (see figure 19). The number of pharmacies grew fastest in the beginning of the 2000s and reached the highest rating in 2001 with 868 pharmacies. Since then, the number of pharmacies has slightly decreased and has been close to 820 pharmacies in the last few years. In 2006, there were 818 pharmacies in Latvia. In Latvia, one pharmacy serves about 2500 inhabitants. This is quite a good figure, but uneven distribution causes problems. Only 11,8 % of the total amount of pharmacies are in rural areas. (Ozolina 2007, 14) The pharmacy sector in Latvia continued the consolidation of pharmacies and wholesalers. Many pharmacies joined chains decreasing the number of independent pharmacies. Also many chains were sold to wholesalers. (Tamro Latvia 2006/07)

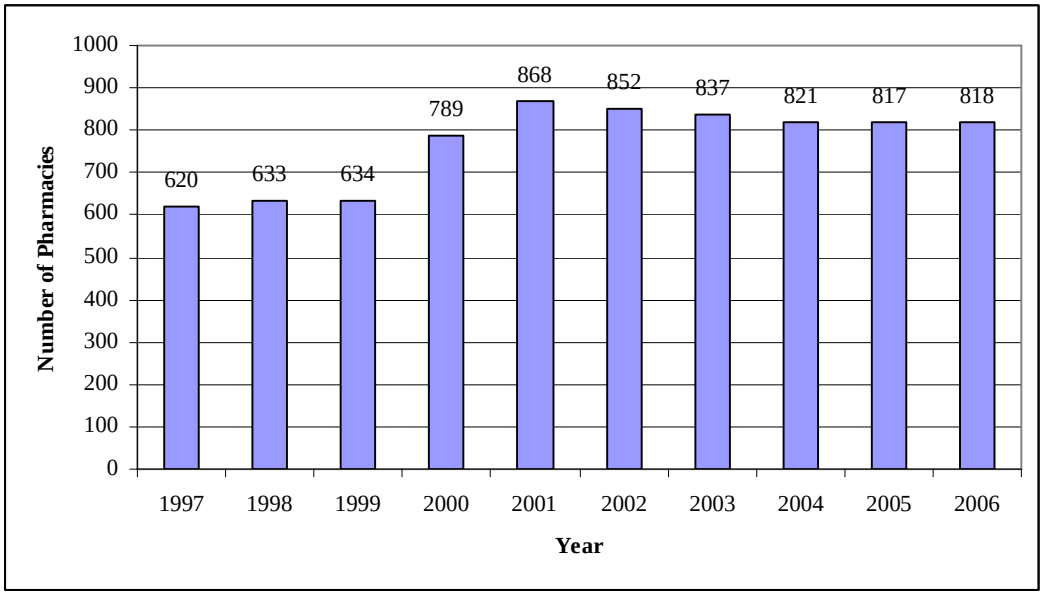

Figure 13. The number of pharmacies in Latvia 1997-2006 (Euromonitor International, SAM Statistics 2006)

Tamro's pharmacy chain Gimenes Aptieka has a share of approximitely 8 % of the market in Latvia (Tamro Latvia 2006/07). In addition to Tamro's chain, Sentor Farm pharmacy chain

(154 pharmacies and about 20 % market share in Latvia) and Euro (internet pharmacy) are the biggest players on the market (BBN 2004).

The average price of one package was 2,57 LVL in 2006. The growth from the previous year was 24 %, which was considerably less than the growth a year before (40 %). Reasons for the increase in the average price are, for example, the availability of new medicines, a greater amount of financial support from the state, vaccination of children, and reimbursement of medicines. The average prices of medicines have been growing faster since 2004 (see table 27).

As there are different types of packages on the market, the average price of one package –figures do not give a correct picture of the real situation in the country. For example, medical establishments use larger presentations in comparison to general type pharmacies. For this reason, a better figure for describing the price is the average price of one DDD (daily defined dosage). It reflects the assumed average maintenance dose per day used by a patient. (SAM Archive, 2005) The average price of one DDD was 0,37 LVL in 2006 and the growth was 23 % from the previous year.

There has been a slight difference in the growth of these two figures (see table 27). The average price of a DDD has grown more moderately compared to the average price of one package. However, the average price of a DDD –figure reflects the real situation better, so the price of medicines has not been growing as much as it seems when looking at the average price of one package –figures.

Table 27. Average price of medicines in Latvia (LVL) and change, %

	Average price of one package	Change from previous year, %	The average price of DDD	Change from previous year, %
2003	1,23	5	0,23	5
2004	1,48	20	0,27	13
2005	2,07	40	0,30	12
2006	2,57	24	0,37	23

Source: Zalu paterina statistika 2006

In Latvia, only about one fourth of medicines sold from pharmacies (of any type) are non-prescription medicines and the rest are prescription medicines. (SAM Statistics Publication 2006, 14)

In Latvia, the advertising of medicines is mostly done in written form or by reminders (together about 86 % of advertisement in 2006). However, the amount of video advertisement has been growing, but covered still only about 10 % of advertisements used in 2006. (SAM Annual Report 2006, 23)

5.3.4 Lithuania: Domestic domination

In 2006, the pharmaceutical market in Lithuania grew 17 % and its value was EUR 385 million in retail prices (PPP). Consolidation of wholesale markets continued and vertical integration increased. Pharmacy chains now have a 76 % share of the market, compared to 65 % in 2005. (Tamro Lithuania 2006) Business Monitor International forecasts that the annual growth rate will be 6,5 % between 2006 and 2011 (BMI 2006).

In Lithuania, about 95 % of medicinal products are imported. Lithuania also has domestic producers, but they are primarily export-oriented (BMI 2006). In 2006, there were 14 local pharmaceutical manufacturers (Krukiene & Alonderis 2007, 22). The largest domestic manufacturer is Sanitas. It has been growing through acquisitions. The latest took place in 2006, when Sanitas acquired a big Polish drug producer Jelfa. (Sanitas 2008)

There were 74 wholesalers registered in Lithuania in 2006. Most of these are small companies. However, the market is controlled by five top players, which have about a 70 % market share. The top two, Tamro and Limedika, have a 20 % market share each. They are followed by Medikona, Armila and Mauda. The biggest wholesalers have their own pharmacy chains. (Krukiene & Alonderis 2007, 23)

The number of pharmacies quickly increased at the beginning of the 2000s, but has been close to 1400 for the last few years (see figure 20). In 2006, there were 1426 pharmacies in Lithuania. The table excludes hospital pharmacies as they can not participate in retail trade. In 2006, the number of hospital pharmacies was 60. (Krukiene & Alonderis 2007, 25)

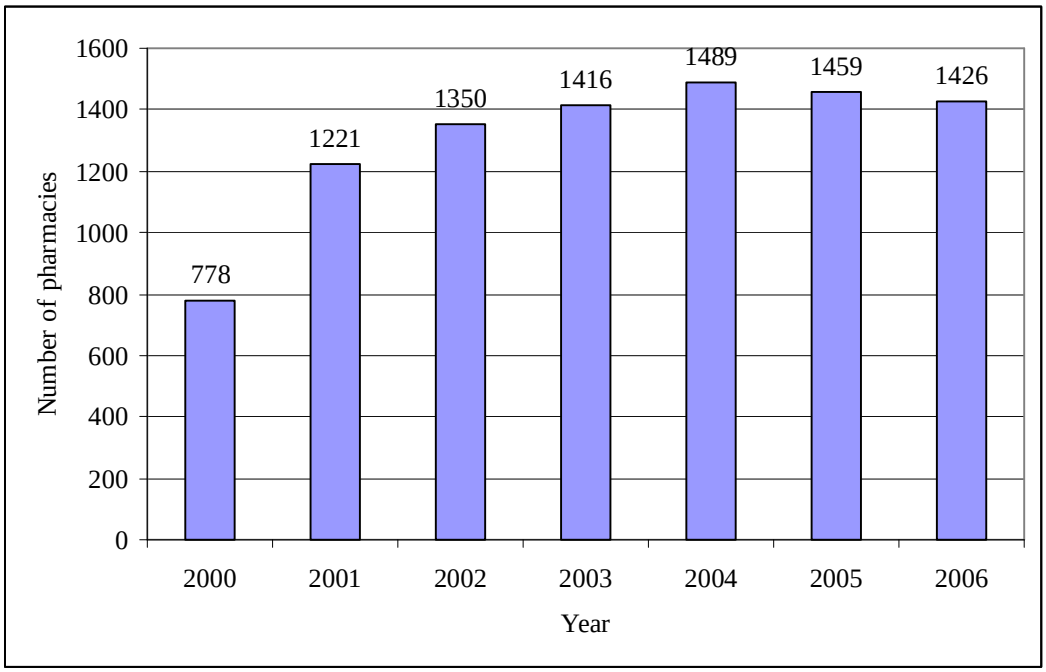

Figure 14. Number of pharmacies in Lithuania 2000-2006 (Krukiene & Alonderis 2007, 25)

The pharmacy chain Eurovaistine is the leading chain in Lithuania. It had a 25 % share of the total Lithuanian market in 2004. According to Euromonitor International, Eurovaistine was the first retail pharmacy chain that started to promote its own brand and not brands of manufacturers'. (Euromonitor International 2006) Eurovaistine has 210 pharmacies in Lithuania, 40 in Latvia, 18 in Estonia, 15 in Czech Republic, and 10 in Slovakia (Zinios 2007). In 2007, the group decided to uniform its processes and names of pharmacies. Pharmacies are now working under the name Euroapotheka in all its five market areas. (BBN 2007) The group is owned by VP Market, the largest Lithuanian retail group.

In 2006, Nemuno Vaistine, the operator of pharmacy chain Camelia, merged with pharmaceutical wholesaler Mauda (BBN 2006b). Camelia owns 130 pharmacies in Lithuania (Camelia 2007).

Gintarine Vaistine operates 112 pharmacies in Lithuania. In 2007, the largest Polish drug wholesaler, Polska Grupa Farmaceutyczna (PGF), acquired 50 % of Gintarine Vaistine and also 50 % of the Lithuanian pharmaceutical wholesaler Limedika. (The Krakow Post 2007, 3) Gintarine Vaistine acquired the pharmacy chain Vokieciu Vaistine, one of the first private pharmacies in independent Lithuania, at the end of 2007. The name of the acquired chain is not planned to be changed. (BBN 2008)

Tamro's pharmacy chain is Seimos Vaistine. This chain consists of 86 pharmacies. It has been growing through acquisitions and by establishing new pharmacies. Tamro's main emphasis in Lithuania is to strengthen their leading position as a wholesaler, but also to increase its market share in retail. (Tamro Lithuania 2007)

Pharmacies are moving to shopping malls and the amount of spontaneous shopping is increasing. Sales are increasing because of locations close to other shops, a self-service system, and a wider range of body-care products, vitamins and food supplements. (Euromonitor International)

5.3.5 Summary

The pharmaceutical market has grown remarkably in all of the studied countries (see table 28). In Russia, the market growth was strongest and also Latvia and Lithuania gained double-digit figures. Market size, when put in proportion to population, was biggest in Latvia. Estonia and Lithuania do not fall far behind. However, in Russia the pharmaceutical market was clearly not as developed as it was in the Baltic States.

Table 28. Pharmaceutical market size and growth in studied economies

	Russia	Estonia	Latvia	Lithuania
Market size in 2006, million EUR	8 300	146	280	385
Market size per capita, EUR	58	110	122	113
Growth %, 2005-06	30 %	9 %	15,60 %	17 %

Source: Pharmexpert, Tamro Viro, Latvia's State Agency of Medicines, Tamro Lithuania (Exchange rates from Bank of Finland)

In the Baltic States, the biggest wholesalers are international companies and they usually have operations in all the three Baltic States. In Russia, the top two wholesalers are domestic companies. However, many other wholesalers from the top 10 are international companies. In all of these markets, consolidation of wholesalers is going on. Table 29 shows the number of wholesalers in 2006 in these economies. Latvia has clearly smallest number of wholesalers and the top 3 wholesalers have a share of about 73 % of the market. In Estonia, the top 2 wholesalers have nearly 60 % of the market and in Lithuania 70 % of the market is covered by the top 5 wholesalers. In Russia, the top 6 wholesalers cover about 80 % of the market.

Table 29. Number of pharmaceutical wholesalers in Russia and in the Baltic States, 2006

	Number of Wholesalers
Russia	Over 84
Estonia	53
Latvia	37
Lithuania	74

Source: Pharmexpert, PPRI

In the Baltic States, there are less than 3000 people per pharmacy (see table 30), which indicates the level of saturation. In Russia, the figure is about 7150 people per pharmacy, leaving room for growth. However, regional differences are remarkable. The more populated cities tend to have more pharmacies and some rural areas have low access to pharmacies. Estonia established regulations in 2006, which restrict opening new pharmacies in cities where the number of people per pharmacy was under 3000.

Table 30. Number of population per pharmacy in studied countries

	Population per pharmacy
Russia	7150
Estonia	2538
Latvia	2813
Lithuania	2394

Source: PWC, PPRI

In all of these markets, especially in the Baltic States, the common trend is that wholesalers are also participating more in retailing. For example, in Estonia this is due to the tightening price competition as the market is getting more and more saturated. In Russia, the pharmacy industry is consolidating strongly and pharmacy chains are growing from regional to national. In Lithuania, pharmacy chains already have 76 % of the markets. In the Baltic States, pharmacy chains grow mostly through acquisitions of other smaller chains, but in Russia the growth happens through acquisitions in the regional level and through organic growth. The largest chains are not yet competing fiercely, but focusing on regional growth. In the Baltic States, most of the pharmacies are open type of stores. In Russia, most pharmacies are still closed type. In Moscow, 69 % of pharmacies were closed type, 25 % mixed and only 6 % open type of pharmacies.

The Baltic States' markets are clearly more saturated and are more internationalized than the Russian pharmacy market. In all of these countries most of the products, medicines, are imported, but the intermediaries, wholesalers and retailers, are more domestic companies in Russia, while in The Baltic States the biggest players are international.

6. Conclusions

6.1 Industry Structure

During the communist rule prices were fixed by the state and private profiteering was prohibited. The production of input goods was favored over consumer goods, which created permanent bottlenecks in the retail trade sector. This created a situation were the state could not guarantee that consumer goods would be available at fixed prices. As citizens had an increasing amount of money in their use, but no products to buy, they were in a way forced to save their earnings. This phenomenon, "monetary overhang", was one of the reasons which created a shadow economy to fulfill the demand that was not met by official supply. (Ylä-Kojola 2006, 10)

After the Soviet Union collapsed monetary overhang vanished when prices rose rapidly and the economy declined, causing people's savings to lose their value. Certain individuals gained from this situation and remarkable differences in wealth emerged. (Ylä-Kojola 2006, 10) As the transitional countries recovered from the collapse of the communist system, a very rapid economic growth began. Also the retail trade started to recover quickly. There was a ready market for long awaited consumer goods in all post-communist countries (Tiusanen and Malinen 2006, 6).

The pharmaceutical market experienced similar changes. As Soviet Union collapsed, the centrally organized supply of pharmaceuticals was replaced by a number of private distributors. In 2005, there were over 1500 distributors - retailers, wholesalers, importers - involved in pharmaceutical distribution in Russia alone. The number of medicinal products available grew and the quality improved, as products from western manufacturers entered the market. Today, western products dominate the market counting 74 % of the market in Russia. In Latvia and Lithuania the equivalent figure is 94 % and 95 %, respectively. However, in Russia a strong black market of pharmaceutical products flourishes. It was estimated by Doctor Alexander Bykov, an expert of counterfeit drugs in Sanofi-Synthelabo, that about 12 % of all the medicinal products in Russia are forgeries. The problem is very evident and has a huge effect on profits of companies operating in Russia. It has been estimated that one non-European drug manufacturer has lost about 20 % of its profits during four years of operations in Russia. However, experts believe that the possible WTO membership will have a positive effect on rooting out the black market of medicinal products.

The level of internationalization varies greatly between these markets. In Estonia most of the biggest companies in wholesale and retail of medicinal products are international and in Russia the largest companies are just expanding to become national. Latvia and Lithuania fell between these two: the biggest wholesalers are foreign companies, but the biggest pharmacy chains are still domestic.

The common trend for these markets is that wholesalers are getting involved with retail also. In the Baltic States, one of the biggest wholesalers, Tamro, also has retail chains in all the three markets and in Russia the number one importer, Protek, also acts as a wholesaler and has two pharmacy chains in Russia, Rigla and O_3.

In Russia and in the Baltic States, most medicinal products are imported. In the Baltic States, fewer than 10 % of the medicines in the market are domestic in each three country. From these three countries Latvia has the most active manufacturing sector, but it is export oriented. In Russia, own production counts for 26 % of the total market. Domestic drugs are much cheaper and of lower quality when compared to imported ones. The black market has a strong foothold in Russia. Some of these illegal products are manufactured in Russia and others are imported illegally from Thailand, China and Philippines, for example.

In the Baltic States, pharmacies are very modern and offer similar services and products as their Western counterparts. Pharmacy chains have a big market share in the Baltic States. The biggest local chain is Eurovaistine. It is a Lithuanian pharmacy chain and operates, in addition to Lithuania, in Estonia, Latvia, Czech Republic and Slovakia. Recently, in 2006, Eurovaistine united its pharmacy chains in all these countries under one brand Euroapotheka. Also the Finnish Tamro has a strong foothold in the three Baltic countries. It acts as a wholesaler and as a retailer in all the Baltic States. However, Tamro's pharmacy chains have different brands in different countries. From the Baltic States, Tamro has clearly succeeded best in Estonia, where it has the number one pharmacy chain and has second place as a wholesaler. In the Baltic region, the growth of pharmacy chains is done mostly through acquisitions, as the market is getting very saturated. Estonia launched at the beginning of 2007 a new regulation, which prohibits the establishment of new pharmacies to regions/cities where the population per pharmacy is under 3000.

In Russia, pharmacy chains are just beginning to emerge. At the moment, most of the pharmacy chains in Russia are still regional. According to Pharmexpert categorization, only pharmacy chain 36.6 is nation wide. Pharmacies are still expanding through organic growth. Pharmacy chains are not currently competing with each others, but focusing on lower cost

growth opportunities on a regional level. However, some experts predict that as some of the biggest pharmacy chains in Russia have made remarkable investment in their operations, these companies are getting ready for the entry of big international chains. Alliance Healthcare, a leading wholesaler in Europe, is present in the Russian market in retailing. It has a chain of independent pharmacies, which includes 35 pharmacies in Russia. All these pharmacies operate either in Moscow or in St Petersburg.

The regional differences in Russia are remarkable. The growth figures of pharmaceutical sales by region show clearly that the Moscow region market is far more saturated than in other regions of Russian Federation. The growth figure for Moscow was about 3 % in a period of 2005-2007 as the equivalent figure for St Petersburg was 15 %.

To some extent, the differences between Baltic States and Russia can be explained by the enormous size difference between these markets. In Russia, regions are geographically more distant from each other than in the Baltic States. This has an effect on the logistics and of course the economic and social distances are also bigger between Russian regions, although there are remarkable differences within the Baltic States countries.

In the Baltic States, laws and regulations are clear and follow the European Union standards. In Russia, the federal level regulations and laws are clear and fairly easy to find. However, the execution of these regulations and laws takes place in a regional level. Regional authorities have decision-making power and therefore the actual obligations and demands can vary from region to region.

In sphere of importing and exporting medicinal products, the biggest difference between the Baltic States and Russia, in addition to the benefits gained through the membership of European Union, is that according to legislation the Russian government has a possibility to add special tariffs for products imported, if they see that imports threaten the domestic production or in some other way disturb the markets.

The conditions for receiving a license for establishing a pharmacy are fairly similar in all countries under review. Furthermore, in all four countries it is similarly important for prescription medicines to be on the list of reimbursed pharmaceutical as it has a remarkable effect on sales. For example, in Estonia about 90 % of sales of prescription medicines were reimbursable in 2006.

Pricing of pharmaceuticals differs in these countries. In Russia, the pricing of medicinal products is almost free (prices can be set without any limits). They do have some restrictions for reimbursed pharmaceutical prices, but the regulations are hardly enforced. In Lithuania, the pricing of non-reimbursable pharmaceuticals is free, but for reimbursed medicinal products the mark-ups are limited for wholesalers and retailers and the manufacturing prices are based on reference pricing. In Latvia and Estonia, also non reimbursed pharmaceuticals have price regulations similar to reimbursable medicines.

It is also evident that these markets are in different stages. The Baltic States' markets are more saturated. Especially in Estonia the market is saturated and the competition is fierce, which makes price the most important tool in competition. Thus, making profits has become difficult in Estonia. In Latvia and Lithuania, the markets are not yet saturated and profits are still better than in Estonia, but competition is getting harder as consolidation of the markets advances. One remarkable feature of the Latvian and Lithuanian markets is that wholesalers are more and more involved in retail of pharmaceuticals by owning pharmacy chains. The vertical integration implies that the competition is getting harder as the bigger players want to be involved in several levels of distribution to guarantee their presence in the market.

The Russian pharmacy sector is still pretty untapped by international companies. However, many international pharmaceutical manufacturers, for example Roche, Aventis Pharma (a part of Sanofi-Aventis), and Servier from France, are already present at the market as they have import activities in Russia. The wholesale business is still dominated by domestic companies, but a few international establishments have entered the market. In pharmaceutical retail, the chains are mainly domestic. Alliance Healthcare, the British-German pharmaceutical company, has a network of independent pharmacies operating in Moscow and St Petersburg, but it currently only includes 35 pharmacies. The company's plan is to expand its operations in Russia.

Traditional pharmacies do not have much competition from other forms of operation. Internet pharmacies are not allowed in Estonia and Latvia. In Lithuania there are a few pharmacies operating on Internet. In Russia, there are several internet pharmacies in operation. However, some observers consider this business illegal. Legality of internet pharmacies is considered as a difficult topic as the surveillance of prescriptions is very difficult. Internet or mail-order based pharmacies are not very popular as it is as easy, and in many cases faster, to visit a pharmacy close by than order products through the Internet and wait for the delivery through mail.

6.2 Key success factors

To be successful, a company must be able to distinguish itself from the competitors. A company has to acquire competitive advantage in respect to its competitors. The two key dimensions in achieving competitive advantage are customers and competition.

In retailing, customers are always local. It creates challenges for international companies as they enter new markets. In the Baltic States, pharmacies operate much like in Western Europe where OTC pharmaceuticals are on open shelves and customers can observe products by themselves and get help when necessary. In Russia, the situation is very different. Most pharmacies are the closed or mixed type. In closed type pharmacies, all products are behind the counter and some products are put into display windows, behind glass. In mixed type store format, some products are on open shelves, but most still behind the counter. The popularity of open type pharmacies in Russia is low, as it is mandatory to have security personnel in the store, if the medicines are on open shelves. This is considered to be expensive. The biggest pharmaceutical retailer in Russia, 36.6, was the first one to establish western type pharmacy outlets in 1997. In its annual report 2005, the company stated that it has six different store formats for different location, shopping area, and shopper numbers (Annual Report 2005, 8).

The difficulty of transferring a successful store format into a new market is a highly demanding job. A study conducted on the internationalization of Boots's, a leading pharmacy/healthcare brand in UK, stated that even though the domestic store format was very clearly recognized and accepted by British consumers it turned out to be an alien or unmanageable concept when implemented overseas. In Boots' case, the international operations comprise mainly export business. (Burt, Davies, McAuley & Sparks 2005, 200)

Consolidation of the pharmacy market involving creation of pharmacy chains covering the whole country is currently taking place in all these four markets. In the Baltic States, especially in Estonia, the market is getting very saturated, and thus reducing costs is very crucial. Being a part of a pharmacy chain gives a pharmacy more visibility, optimally throughout the country. Also the common supply systems, sourcing, and customer loyalty programs lower the costs and bring in more customers. Many of the leading chains, both in Baltic States and in Russia, have very good western type internet pages. These pages give customers information about the products and offerings. Through a pharmacy's internet pages it is easy for a customer to find the nearest pharmacy of that specific chain.

Creating a well know brand has become a very important factor in these markets. Some pharmacy chains have established their own brands.

Russia's biggest pharmacy chain, 36.6, produces many own label products. These include, for example, generic medicines and hygiene products. The strengths of 36.6 private labels are competitive pricing and superior quality. The company sees its own label products as a strategic tool as they are planning to expand the assortment, which currently includes more than 30 items. (Annual Report 2005, 6)

Advertisements, loyalty cards, and availability are other key factors in creating a well known brand. All Tamro's chains have their own loyalty card systems and the chain's pharmacies can be found in all the biggest cities. Advertising of pharmaceutical products is regulated in all the market areas studied. The European Union has established directives for pharmaceutical advertising, which the Baltic States have to follow. In some cases, local regulations are stricter than the EU directives. For example, in Estonia the absolute ban of Internet advertising is not in line with EU rules (Elunurm 2008, 6). A united brand is also seen valuable. Only last year, one of the biggest players in the Baltic States market, Eurovaistine, united its brands in different countries under one brand name Euroaphoteka.

6.3 Future prospects

In the first years of the 21st century, the pharmacy market in the four post-communist countries under review has increased more rapidly than in the Western mature markets. All countries involved in this report have experienced a period of strong economic growth. In addition, there is still bend-up demand in the pharmacy market.

None of the four countries involved offer an optimal environment for industrial activity in drug production. Local markets in all Baltic States are small in size, and thus, offer limited incentives for new production units in the branch under review. The large population of Russia and her protectionistic trade policy potentially attract FDIs in drug production, but her legal environment concerning industrial property rights obviously makes Western companies reluctant to establish medicine making production capacities in her territory.

Thus, pharmaceutical companies seem to be interested in direct exporting to countries under review. At the same time, Western drug-makers have a long-term interest in getting involved

in wholesale and retail sales of their own products in post-communist societies with plenty of potential demand for modern medicines.

Empirical results of this study show that the markets of pharmaceutical products have reached a certain level of saturation. This is not necessarily the case in Russia yet. The average number of people per pharmacy is less than 3000 in all the three Baltic States. In Russia, the equivalent figure is on average 7150 people per pharmacy. Consolidation of markets is going on in all four market areas: wholesalers are acquiring smaller pharmacy chains. However, in Russia pharmacy chains are growing through organic growth and the biggest chains are not yet competing strongly with each other. In the Baltic States, the growth is gained mostly through acquisitions.

Competition is getting harder and creating a brand has become a necessity. The biggest pharmacy chains have even their own labeled products and loyalty card systems are also used. In addition the biggest pharmacy chains have internet pages, which give information about products, offerings, and locations of the nearest pharmacy. However, especially in Russia regional differences are huge and therefore the level of competition varies.

The main threat for the Russian market is the high level of counterfeit medicines. It is estimated that over 12 % of medicines sold in Russia are forgeries. The losses for companies are high, but because of the high quality of the counterfeit medicines and the fear of losing the trust of the customers, the problem is suppressed. However, experts expect WTO accession to improve the situation remarkably.

The Baltic States' pharmacy market is already very saturated and it can be expected that the current big players will continue to control the market. The entry of new international pharmacy chains is not highly probable as the markets are quite small and the competition is already fierce. Russia, on the contrary, offers enormous potential for international pharmaceutical companies as its ageing population, growing income, and changing lifestyles create new needs, which generate opportunities for international pharmacy chains to use their expertise to fulfill the changed demand from the health-aware customers.

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