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Competition in the Latvian and Baltic Grocery Retail Markets[*]

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Abstract

This report analyzes concentration in the grocery retail market in the three Baltic countries: Estonia, Latvia and Lithuania. The markets (including some comparator Eastern and Western European markets) are analyzed using two standard measures: the Herfindahl Hirschman Index and the four firm concentration ratio. By applying a standard classification as used, for example by the US Department of Justice, the analysis reveals that the Latvian grocery retail market is competitive, the Estonian moderately concentrated, and the Lithuanian market highly concentrated. Given this observation, it is surprising that Latvia, where the grocery retail market is the most competitive (out of the three Baltic countries), is the country where further regulatory measures against the grocery retailers have been discussed the most.

Furthermore, in the light of the Latvian discussion on how to strengthen suppliers vis-à-vis retailers, the report analyzes some of the arguments, which have been used in the Latvian discussion to support the need for the proposed amendments to the Latvian Competition Law. A theoretical analysis of the concept of countervailing power and its relevance in the Latvian context shows that it is far from obvious that strengthening suppliers relative to retailers will benefit Latvian consumers. The report also examines the argument that the level of market concentration in the Baltic grocery markets (in particular the Latvian one) contributes to the relatively high Baltic inflation levels. There seems to be no support whatsoever for such a claim.

1 Introduction

This report provides an overview and analysis of the recent developments in the Baltic grocery retail markets with a focus on Latvia, where the emergence of two leading retailers has raised concerns about excessive market power. Concerns that also are reflected in the Latvian Government's inflation fighting plan (where the role of retailers is explicitly addressed) as well as in a proposed amendment to the Latvian Competition Law aimed at reducing the market power of the leading retailers vis-à-vis domestic suppliers and smaller retailers.

The structure of the report is as follows. The remaining part of this section discusses recent developments in Latvia and the Baltic states in more detail and with reference to recent development in the United Kingdom. There follows a section devoted to various theoretical concepts relevant for the study: competition and how to measure it; how to define a market; vertical links in retailing and the concept of countervailing power; the relationship between inflation and competition. The theoretical discussion is followed by an empirical investigation of the degree of competition in the Baltic grocery retail markets showing that the Latvian market is the least concentrated one whereas the Lithuanian is the most concentrated one. The last section provides a summary of the findings and conclusions.

Over recent years, Latvia together with the two other Baltic states, Estonia and Lithuania, has seen a remarkable development of the retail grocery sector. Starting from a very Soviet system in which, for example, modern supermarkets were unknown, all three countries are now served by a mix of modern formats – hypermarkets, supermarkets, and discount stores – as well as traditional open markets. Moreover, the sector is characterised by considerable dynamism with new entry and considerable cross border activity. However, the rapid emergence of a small number of leading retailers has led to concerns, especially in Latvia, about what is labelled "excessive market power" vis-à-vis (domestic) suppliers and smaller retailers. Among other things this has led to a proposed amendment to the Latvian Competition Law giving the Latvian Competition Council (LCC) much bigger power to intervene in the sector. In particular the proposed legislation would introduce the concept of 'significant market power' and would outlaw practices that 'abuse' such market power.

It has to be said that the proposals for amendments to the Latvian competition law come with very little hard evidence of the state of competition in retail grocery. One exception is the Latvian Competition Council's recent investigation of the milk market where it is concluded that "despite the fact that the value added and costs of the milk processing producers are higher than that of the retailing stage of the process, the profit per unit earned by the supermarkets is considerably higher, which demonstrates unequal market power as between the milk processors and the two biggest retailers"[1]. However, this argument hardly qualifies as evidence since it is not demonstrated how and to what degree Latvian consumers are negatively affected by these observations. Furthermore, there is nothing in economic theory suggesting that this necessarily should be the case – on the contrary as the discussion on vertical links will show there might be situations where this might benefit consumers as well as the economy as whole. Latvian supermarkets have also been alleged to engage in below

[1] Kuplā and Tarvāne (2006) p 8. Translation from Latvian by the authors of this report.

cost pricing, price flexing[2], late payment to suppliers, charging for access to shelf space and other practices which could be regarded as potentially anti-competitive[3].

In an international perspective, Latvia is not the only country in which state of competition in retail markets for groceries has aroused both public interest and regulatory attention in recent years. For example in 2000 the UK Competition Council (CC) published the results of an 18 month inquiry into UK supermarkets. This inquiry in many ways provides a model for how such an investigation should be conducted and also demonstrates the uncertainties associated with drawing conclusions about individual practices observed in the sector.

The focus of much of the UK inquiry was the competitive relationship between the supermarkets and their suppliers (exactly similar to concerns expressed in Latvia) and although it was found that a number of industry practices adversely affected the competitiveness of some of their suppliers and operated against the public interest and others gave the supermarkets substantial advantages over smaller grocery retailers, the CC nevertheless concluded that that the adverse effects of these practices would most effectively be addressed by means of a supermarkets code of practice. Moreover, the CC also concluded that the overall level of profits in the industry was not excessive. Subsequent developments in the UK market and reviews of the working of the code of practice have led to the instigation of a new inquiry in March 2006 which is currently under way. The new inquiry will examine, among other things, whether the practices of selling below cost and price flexing which were not covered by the code of practice, result in a distortion of competition.

The UK supermarkets inquiry has been described by one commentator as "the most data intensive and technically demanding ever conducted in the UK"[4] and that "the quantity of applied economic analysis was unprecedented in a commission inquiry, and the conclusions were largely based on a sophisticated empirical testing of hypothetical models"[5]. Nevertheless, even after this the Commission concluded that it could not recommend 'remedies' or changes in behaviour other than that some practices should be covered by a code of practice. Pricing below cost and price-flexing, although regarded as compromising competition, were not included in the code or subject to other remedies on the grounds that "overall … the market is generally competitive, … [and] our duty [is] to ensure that intervention in such a market must be proportionate and impose the least regulatory cost in seeking to remedy any adverse effects found"[6].

Thus, even with the benefit of the deepest investigation, the UK competition authorities have been reluctant to resort to draconian remedies. This is partly because, despite moderate to high levels of market concentration, the grocery market is regarded as "generally competitive" and partly because the market is much more complex than can be interpreted in terms of simple textbook economic models.

The grocery market in Latvia and the other Baltic states is hardly less complex than in the UK and a full evaluation of the prevailing degree of competition requires equally deep

[2] Price flexing refers to the practice selling the same product at different prices in different locations.
[3] Some of these allegations have appeared in the Latvian press and others are mentioned in the 'anotācija', i.e. the formal justification from the Latvian Economics Ministry for making its legislative proposals that later resulted in the proposed amendments to the Competition Law.
[4] See Frontier Economics (2000) p 1.
[5] See Frontier Economics (2000) p 4.
[6] See para 1.8 in Competition Commission (2000).

investigation. To date apart from the recent Latvian Competition Council investigation into milk margins discussed above, virtually nothing has been done in Latvia and we know of no investigation in Estonia or Lithuania. Hence, the present study is a first step in the direction of serious investigation. In particular, the aim is to assess the degree of market concentration (generally regarded as a key indicator of competition) across the Baltic states and to make some comparison with other European countries. One quite clear result is that retail grocery markets in the Baltics look much more like the Western European markets than those of the other Eastern European new EU member states.

2 Theory

The following section provides an overview of various theoretical concepts necessary for an understanding and analysis of the grocery retail markets. After a discussion of key issues such how to define and measure competition and the definition of a market, we leave the basic text book model behind to discuss more complex issues such as vertical links and countervailing power as well as the relationship between competition and inflation and their respective implications in the Latvian context.

2.1 Competition and how to measure it

Competition is usually regarded as a desirable feature of an economic system. However, there is no consensus on how to define competition, never mind how to measure it. In economic theory there are at least two distinct approaches to competition. Firstly, there is the neoclassical approach which focuses on market structure in a given sector, in particular the number of participants and their respective market share, and which considers market concentration as an important measure of competition. This may be contrasted with the Austrian view which looks upon competition from a different perspective, focussing on market innovations and product differentiation.

The neoclassical approach

The neoclassical approach typically informs the standard regulatory approach to competition issues and also underpins the measures employed in this report. The focus is on market structure where there is a presumption that in general a more concentrated market is less competitive and therefore less in the public interest.

The empirical challenge in the neoclassical approach is to find a meaningful measure of concentration that in a single number sums up the most important aspects of the distribution of market shares in a given market. The most commonly accepted measure of market concentration is the Herfindahl-Hirschman Index (HHI). The HHI is calculated as the sum of squares of the percentages of the market shares held by the firms in the market. If there is a monopoly, then one firm has a 100 per cent market share and the HHI is 10,000 (100 x 100). On the other hand, if there were thousands of firms competing, each of them having a market share close to zero, then the HHI would also be close to zero. A property of the HHI is that it differentiates between an industry in which four players have equal shares and another where one player has 70 per cent share and the three others 10 per cent each. The former, which is more competitive, will have a lower HHI.

The HHI is used by many regulatory agencies. For example, the US Department of Justice considers markets with an HHI less than 1,000 to be competitive. If the HHI is between 1,000 and 1,800 then the market is considered to be moderately concentrated, whereas an HHI of 1,800 or greater indicates a highly concentrated market. In the US, as a general rule, mergers that increase the HHI by more than 100 points in a market that already is at least moderately concentrated (i.e. HHI greater than 1,000) raise antitrust concerns. In the absence of countervailing power (discussed below), both theory and empirical evidence suggest that other things being equal markets with a higher HHI generate higher prices and bigger profits for market participants.

Alternative measures of concentration are the market shares of the top few – three, four or five – market participants. The market share indicator provides an intuitive measure of concentration but one that is less informative than the HHI about the distribution of market shares.

Even in the neoclassical approach with its focus on market structure and prices the mechanism linking prices to the number of firms depends on a complicated mix of factors, e.g. the type of competition and the potential for collusion between sellers. In particular, the observed market structure anywhere, including the three Baltic countries, depends on more than just the market behaviour of retailers. It is influenced by factors (in many cases political/institutional) such as:

- economies of scale;
- legislation and institutional factors;
- the planning system, e.g. through restrictions on development/establishment of new stores;
- the holding of land, e.g. the incumbents may have bought most of the attractive land;
- prices of land and real estate prices can prevent new companies from entering the market;
- the buying power of retailers: strong buyer power from the existing retailers' side might it make it more difficult for new participants to enter the market and offer products at competitive prices;
- business practices as such.

All of these may affect market structure and competition by preventing, restricting or distorting competition, Indeed, the terms of reference of the new 2006 UK supermarkets inquiry indicate that it will examine both the planning system, where there are fears that it "restricts or distorts competition by raising the cost of, and also limiting the scope for, new local market entry, particularly by way of new large format stores"[7], and the issue of land holdings by large retailers where the Office of Fair Trading (OFT) believes "There are reasonable grounds for suspecting that the land holdings of the large supermarket multiples may reinforce their existing market position in some local areas. . . [there is also] evidence of practices that could have an anti-competitive effect, including the use of restrictive covenants in relation to sites sold by the big supermarkets"[8].

[7] See Office of Fair Trading (2006) p 2.
[8] See Office of Fair Trading (2006) p 2.

The Austrian approach

With this approach, retailers are seen as competing for customers using new products, and new methods for selling and marketing. Hence, price is not the only instrument of competition and according to the Austrian view a competitive market does not have to be one where homogeneous products are offered at low prices and where price is more or less the only competitive tool. On the contrary, a competitive market would be characterised by product and service differentiation, a non-uniform price distribution, and generally by dynamism in price and product developments. On the face of it, the Austrian approach rather well describes the nature of competition in retail markets and, in practice, the judgements of competition authorities often include factors originating in the Austrian approach, for example the degree of choice offered to consumers.

2.2 Market definition

All analysis of competition faces the problem of how to define the market domain over which competition should be analysed – after all, through a chain of substitutions it is possible for any good or service in the economy to compete with another. In fact this is implicit in the budget constraint of individuals or households. Such a broad definition of a market is not especially useful for practical purposes and in many instances regulators or competition authorities devote considerable energy to defining markets in a way that is most relevant for analysis.

The retail grocery market is no exception. The many complications include the following:

- A typical supermarket carries tens of thousands of product lines, this makes definition of the 'output' of a supermarket problematic.
- What is the geographic area over which a market should be defined?
- Many types of retail outlet (format) sell products other than groceries – in some cases groceries are the core business e.g. supermarkets while in others it is subsidiary e.g. petrol stations.
- Shopping habits can lead to an apparent segmentation of the market e.g. in the UK Competition Council approach a distinction is made between weekly 'one-stop-shopping' usually made at one location and as 'secondary shopping', which "typically involves the greater use of other types of grocery stores, a different product mix and a lower average basket spend"[9].

The fact that grocery retailers carry many thousand of lines means that it is difficult to define exactly what it is that, say, a supermarket 'supplies' and correspondingly it is not clear what exactly is the 'price' at which the supply is offered. One route to definition of the market is to suppose that what is supplied is a certain 'kind of shopping'. This is the solution adopted by the UK Competition Council which distinguishes between "one-stop shopping" at locations (usually supermarkets or hypermarkets) where people do a weekly shop for most of their grocery and routine household needs and "secondary" shopping at convenience stores or specialized shops which supplements the regular weekly shop. Needless to say, this 'two market definition' can generate as many problems as it solves and is not accepted by all stakeholders in the grocery market.

[9] Office of Fair Trading (2006) p 5.

In this report we have, for practical purposes (i.e. data comparability), have demarcated the grocery market as consisting of the retail services provided in the NACE 52.11 category[10]. In other words we focus on the market shares of non-specialised grocery outlets that are dominated by food and hence we exclude both specialised shops, such as butchers, and outlets such as petrol stations that are dominated by non-food items[11].

The grocery market clearly has a geographical domain – people are unlikely to travel large distances to undertake their normal weekly shopping, and even less far for secondary shopping. The UK definition of the catchment area of a 'one stop' outlet is that it should be reachable by car within 20 minutes[12]. In the Baltic context this means that stores located in the capitals can be regarded as belonging to a single market but that there may be many different local markets and that the idea of a national market is problematic. Ideally, we would have liked to identify local markets and the degree of competition within them. To date this has not proved possible and our results refer to market structure at the national level.

2.3 Vertical links and countervailing power

The simple text book model of a market typically ignores vertical links, i.e. the fact that the seller in many cases acts as a buyer in the input market. For example a grocery retailer acts as buyer in the wholesale market for groceries. Hence, to undertake an economic analysis of retailing and its vertical links, one has, as discussed in Dobson and Waterson (1998), to recognize the two stages of retailing; dealing with suppliers and dealing with customers/consumers. Each of the two stages potentially involves the exercise of market power by retailers, which in turn affects the prices facing the consumer. To understand this, the fact that the retailer, from the consumers' point of view, is an intermediary in making the supply of a good available to the consumers, has to be taken into account. Ideally, the consumer would like a situation with a large number of retailers competing on price, i.e. a situation where the individual retailer cannot exercise very much market power vis-à-vis consumers. One the other hand if there is a large number of retailers, this means that they are on average fairly small in size, which gives them little market power vis-à-vis suppliers, which might result in higher prices charged. Furthermore, small retailers are not able to exploit economies of scale and economies of scope[13]. Hence there are generally two opposing effects stemming from the size of the retailer: a large number of small retailers competing on price will result in low prices, on the other hand small retailers will not be able to exploit economies of scale and scope nor can they get low prices from suppliers, which in turn will result in higher prices for consumers as compared with a situation where retailers have stronger market power vis-à-vis suppliers.

Hence, the dilemma facing the policy maker could be characterized as follows: should one have small and weak retailers that buy goods at a fairly high price, but who face fierce

[10] The NACE 52.11 code consists of "Retail sales in non-specialized stores with food, beverages or tobacco predominating"

[11] This does not exclude very much in the Baltic states, which have some of the lowest market shares of specialised shops in the EU. For example in Latvia in 2005 the share of specialised shops in the combined specialised and non-specialised market was 3.7%. Lithuania and Estonia are similar.

[12] This based partly on the views of the UK supermarkets and partly on a survey conducted for the CC which found that more than 90% of respondents travelled 20 minutes or less to do their main weekly shopping.

[13] Increasing returns arise for two reasons: fixed costs that can be spread over high sales levels, and variable costs that also fall with scale, e.g. economies from buying in bulk. Economies of scope arise for example from common storage and sale-recording facilities, use of common displays etc.

competition from other retailers in the consumer market? Or should one have strong retailers that are able to exercise their market power towards suppliers and hence get low prices for the goods purchased, but who face less competition in the consumer market?

The issue of market power upstream and downstream in the supply chain has until recently mainly been analyzed in terms of the basic economic theory of imperfect markets. Retailers have been treated as simple monopsonists vis-à-vis suppliers and hence it should be in the public interest to reduce their power relative to suppliers[14]. At the same time, competition among retailers is regarded as desirable because it is expected to lead to lower consumer prices.

However, this type of analysis disregards the linkages in the process as described by J.K. Galbraith in his seminal work from 1952, *American Capitalism: The Concept of Countervailing Power.*. The fundamental idea of the book is that in market economies powerful retailers, such as (by then) Sears, Roebuck, through exercising "countervailing power" are able to lower the prices they pay to suppliers and to pass on these savings to their customers. Furthermore, Galbraith argued that it is this countervailing power that makes market economies work and keeps prices at reasonably competitive levels. In other words, that the ability of retailers to extract lower prices from their suppliers was more important than any negative effect due to higher concentration at the distribution level.

An interesting observation is that the retail cooperatives established during the first three decades of the 20th century in Europe as well as North America were formed on the basis that a retail cooperative could act as the consumer's agent by using the cooperative's joint buying power (i.e. using Galbraith's terminology "its countervailing power") to get lower prices from suppliers and then pass on the saving to consumers. However, the retailers' market power downstream was not that high since the cooperatives in most cases were comprised of several small retailers.

As discussed above, until recently the theoretical analysis of the countervailing power hypothesis has been limited. Retailers were treated more or less as ordinary monopsonists versus suppliers. This simple analysis neglected several fundamental factors such as the bargaining process between retailers and suppliers, and the competition between retailers; thus ignoring the hypothesis that retailers pass on part of the savings to consumers. However, with the development of game theory it is now possible to analyze the concept of countervailing power and its implications for consumer prices and social welfare in a more sophisticated way. In the following we will briefly discuss recent findings from the academic literature on the existence of countervailing power and its implications..

Dobson and Waterson (1997) show that the presence of countervailing power may result in lower prices even if the number of retailers is low. This finding is true even if the number of retailers declines right down to two, provided that retailer services are perceived as being strong substitutes by consumers. Hence, strong retailer power vis-à-vis suppliers results in lower consumer prices and from a public policy perspective, allowing greater concentration in the downstream market may be socially beneficial provided competition at the retail level is intense. The findings in von Ungern-Sternberg (1996) are along the same lines. Furthermore,

[14] This is for example the case in Latvia, where the Ministry of Economics (ref no 06/V/55) applies basic economic theory when, within the framework of analyzing the amendment to the competition law, analyzing the retailers position vis-à-vis the suppliers as simple oligopsony and vis-à-vis the consumers as oligopoly.

Chen (2003) also shows that an increase in retail power can have beneficial effects for the consumers in terms of lower final prices.

The intuition behind Dobson and Waterson's findings is that the prices paid by the retailer are driven down toward the supplier's marginal cost level as retailer bargaining power increases, whereas intense competition between retailers (being close substitutes) passes this on to the prices facing consumers. If this is the case, then concentration in retailing should not be a major cause for concern. However, if retailers are not close substitutes, then the greater the concentration among retailers, the higher the risk that their buying as well as selling power might increase simultaneously resulting in a situation where intermediate prices fall, whereas the prices paid by consumers increase, and accordingly the profits of retailers increase at the expense of the public as a whole.

Precise characterisation of the presence of countervailing power and calculation of its impact on consumer prices is complicated. There are two channels through which concentration in retailing may offer benefits through reduced costs which feed through to lower final prices. Firstly, cost savings related to economies of scale and scope, e.g. through savings on overheads and staff. Secondly, through the retailer's ability to extract discounts from manufacturers, which would then, provided the competition between the retailers is sufficiently intense, result in lower prices and hence benefit the consumers, i.e. countervailing power.

To conclude, the analysis has so far shown that it is far from evident that a reduction in retailer power vis-à-vis suppliers will benefit consumers. Put into a Latvian context, the issue boils down to whether the big market participants, *Rimi* and *VP Market*, can be considered close substitutes – something that seems to be a quite realistic description of the current situation of competition in the Latvian market. Hence, Latvian legislators and regulators should balance concern over market power with the potential overall benefits to consumers.

2.4 Competition and inflation

What is the relationship between the level of competition in the product market and the level of inflation? As discussed above, in the absence of countervailing power, there might a link between the level of competition and the price level. However, the presence of a link between the level of competition and the price *level* does not necessarily imply a link between the level of competition and the *rate of inflation*. In other words, a high price level following from a highly concentrated product market does not necessarily translate into a higher rate of inflation.

The literature suggest that if there is a link between level of competition and the level of inflation it is likely to be fairly subtle. Such a link has been discussed in Neiss (2001), Cavelaars (2003) as well as in a recent working paper from the European Central Bank; Przybyla and Roma (2005). The point of departure of these papers is the presumption that imperfect competition in the product market results in a situation where output and employment is below the socially optimum level. This in turn creates incentives for the policy makers (central bankers as well as politicians) to increase the inflation rate and thereby increase output and employment. However, the literature on dynamic inconsistency developed by Kydland and Prescott (1977) and Barro and Gordon (1983), points out that rational private agents recognize this incentive and raise their inflation expectations accordingly, resulting in

unchanged output and employment, but higher inflation. Hence, it is not the level of competition in the product market *per se* that that affects inflation, it is the effect it has on reducing the policy makers' incentives to use inflation to raise output and employment.

In the current Latvian (Baltic) context with the overheated Latvian (Baltic) economy (economies), it seems unrealistic that this mechanism should have any bearing on the current Latvian inflation level, since there are no incentives whatsoever for policy makers to further raise the Latvian rate of inflation in an economy operating at (or even above) full capacity. Furthermore, as discussed in Cavelaars (2003), the empirical relationship between the level of competition in the product market and the level of inflation is weak for the transition economies included in the sample. Cavelaars's results suggest that an important role in understanding the inflation in transition economies is played by the Balassa-Samuelson effect, which predicts that relatively poor countries will experience relatively high inflation. In other words in the Baltic context observed inflation is likely to be the result of this effect combined with straightforward overheating.

3 Grocery retail market structure in the Baltic states and in some comparator countries

It is well understood that market structure is not the only factor determining the degree of competition in a sector, especially in a complicated sector such as retail grocery. Nevertheless other things being equal less concentration is likely to be associated with a more competitive sector than one with more concentration. Accordingly in this section we report various measures of concentration of the grocery retail outlet sector in the Baltic states in order to build a picture of the overall level of concentration in the national markets. The Baltic concentration levels are then compared with data from other European countries, including from some selected Western European countries and from those the European post-communist countries for which we have data.

After an international comparison we look at each Baltic country in turn, focussing on the development of market shares from 2003-2005. We then examine development in the distribution of retail outlets across firms.

3.1 Concentration results for the Baltics and international comparisons

Table 1 shows the market shares of the leading grocery retailers in each of the Baltic states, together with two summary measures of market concentration discussed in section 2.1 – the Herfindahl Hirschman Index and the four firm concentration ratio.

Table 1. Grocery retail market structure in the Baltics in 2005

	Estonia		**Latvia**		**Lithuania**	
	Firm	%	Firm	%	Firm	%
1	ETK Grupp	25	Rimi	22	VP Market	38
2	Rimi Eesti	25	VP Market	21	Iki	14
3	A-Selver	12	Mego	4	Norfa Retail	13
4	Soome SOK	8	Nelda	3	Rimi Lithuania	6
HHI	1510		963		1869[a]	
CR	70		50		72[a]	
Period	2005		2005		2005	

Notes: HHI: Herfindahl Hirschman Index calculated from the market shares of the 6 largest firms, excluding franchises. CR: 4-firm concentration ratio. [a]Based on 5 firms only. The base is sales in NACE 52.11. Sources: Statistical Offices of Estonia, Latvia and Lithuania; company websites; Lursoft website; reports in financial newspapers Aripaev and Verslo Zinios; and own calculations.

Table 2 (below) presents a picture of the market structure for a selection of European comparator countries. Hence, we observe that internationally the highest level of concentration occurs in Lithuania. Estonia falls between Sweden and the UK, while Latvia exhibits a level similar to that of the UK. The very high level of concentration in Lithuania is mostly explained by the particularly high market share of its largest retailer, *VP Market.* Thus in terms of the criteria discussed above in section 2.1 the Latvian grocery market can be regarded as competitive but the Estonian market is moderately concentrated, while the Lithuanian one is highly concentrated.

Table 2. Grocery retail market structure in selected European countries in 2004

	UK		**Ireland**		**Germany**		**Slovakia**		**Sweden**	
	Firm	%	Firm	%	Firm	%	Firm	%	Firm	%
1	Tesco	23	Tesco	16	Edeka	14	Tesco	10	ICA Sverige	36
2	Sainsbury	14	Musgrave	14	Rewe	12	Lidl & Schwarz	8	Axfood	17
3	Asda	12	Spar	8	Aldi	11	Metro	7	Coop Norden	14
4	Morrison	10	Dunnes	7	Lidl & Schwarz	10	Rewe	4	Bergendahls Gruppen	3
HHI	966		598		612		241		1748	
CR	59		45		46		29		69	

Table 2 (continued)

	Bulgaria		**Croatia**		**Czech Republic**		**Hungary**		**Poland**	
	Firm	%	Firm	%	Firm	%	Firm	%	Firm	%
1	Metro	8.1	Konzum	15.1	Lidl & Schwarz	9.3	Coop Hungary	14.0	Metro	5.7
2	Rewe	1.2	Getro	8.7	Metro	9.0	Tesco	13.8	Jeronimo Martins	2.8
3	Fantastico	0.5	Metro	4.7	Ahold	8.7	Metro	9.0	Tesco	2.7
4	Piccadily	0.4	Coop Italia	3.3	Rewe	6.1	CBA	8.3	Auchan	2.3
HHI	67		344		304		610		61	
CR	10.2		31.8		33.1		45.1		13.5	

Table 2 (continued)

	Romania		**Russia**		**Ukraine**	
	Firm	%	Firm	%	Firm	%
1	Metro	7.3	Pyaterochka	0.7	Fozzy Group	1.3
2	Carrefour	1.5	Metro	0.7	Metro	0.7
3	Rewe	1.1	Perekriostok	0.4	Furshet	0.5
4	Cora-Louis Delhaize	0.6	Ramstore	0.3	Rewe	0.3
HHI	57		1.3		2.6	
CR	10.5		2.1		2.8	

Notes: Definitions as in Table 1. Sources: IGD (2005). "European Grocery Retailing 2005".

Tables 1 and 2 together show that the development of the Baltic grocery markets is very similar to what we observe in Western Europe. By contrast, in most Eastern and Central European countries the market is much less developed. The very low levels of concentration almost certainly reflect the fact that outside the capitals and other big cities the availability of modern retailing is limited. This is even more the case in Russia and Ukraine.

3.2 Developments over time by country

3.2.1 Estonia

Market shares

The following table indicates changes in firm market shares in the Estonian market from 2003 to 2005.

Table 3. Market shares in Estonia in 2003 and 2005

	2003		2005	
	Firm	%	Firm	%
1	ETK Grupp	25.8	ETK Grupp	25
2	Kesko Food	24	Rimi Eesti	25
3	A-Selver	8	A-Selver	12
4	Soome SOK	7.6	Soome SOK	8
HHI	1372		1495	
CR	65.4		70	

Sources: AC Nielsen and own calculations.

We observe an increase in both the Herfindahl Hirschman Index and the 4-firm concentration ratio from 2003 to 2005. At the beginning of 2005 *Kesko Food* and *ICA Baltic* joined and became *Rimi Eesti Food*. However, *A-Selver* has made the most impressive gains in market share over this period.

Number of shops

Looking at the number of shops indicates a leadership position for *ETK Grupp*. Its total network of 185 shops was by far the largest of all firms in the country. The following table gives the numbers and proportion of shops for each company in 2005.

The total number of chain grocery shops was 337. This was 37 per cent of the 920 shops in Estonia selling food. Super/hyper markets represented 13 per cent of the shops operated by chains. The super/hyper market subsector is dominated by *A-Selver*, although the largest number of hypermarkets is operated by *Rimi Eesti*. The discounters were divided between *Rimi Eesti* and the 26 *VP Market* outlets.

Table 4. The distribution of retail outlets among Estonian retailers 2005

	Number of chains	Number of shops	Super/hyper markets	Discount	% of chain shops	% of super/hyper markets	% of all shops
ETK Grupp	3	185	6	0	55	14	20
Rimi Eesti	3	61	13	48	18	30	7
A-Selver	1	20	20	0	6	47	2
Soome	1	4	4	0	1	9	<0.5
VP Market	1	26	0	26	8	0	3
TOTAL	8	337	43	74			37

Source: Company websites and personal correspondence.

3.2.2 Latvia

Market Shares
The following table shows the development of the Latvian market.

Table 5: Market share developments by turnover in Latvia

	2003	2004	2005
1 VP Market	16.7	19.3	21.1
2 Rimi Latvia	14.4	21.0	22.1
3 Mego	5.3	4.7	3.8
4 Nelda	3.7	3.5	3.4
HHI	538	851	963
CR	40.1	48.6	50.4

Source: Lursoft.

There has been a significant increase in the market shares of both *VP Market* and *Rimi Latvia* over this period. *Rimi Latvia* has done particularly well; managing to knock *VP Market* off the top spot in 2004 (through the acquisition of *City Market*). Partly this has been at the expense of the smaller chains *Mego* and *Nelda*, which both saw reductions in their market shares. Another interesting feature of the Latvian market in this period has been the formation of cooperative associations among competing firms, such as the *Baltstor* association uniting *Mego* and 26 other companies in a purchasing collective. If such associations and franchises are counted as united firms then the Herfindahl index would rise by close to 70 points. The Herfindahl index increased considerably between 2003 and 2005 (mainly through Rimi's acquisition of *City Market*), starting from a very low base. However, it remained low by international standards even in 2005.

Number of shops
Table 6 below shows the most recent data on the distribution of shops in Latvia.

Table 6: Number of shops in Latvia in 2005.

	Chains	Shops	Super/hyper-markets	Discount	% of chains	% of Super/hyper - markets
VP Market	2	100	20	80	13	11
Rimi Latvia	2	78	41	37	10	22
Nelda	1	17	17	0	2	9
Aibe	1	495	0	0	62	0
Elvi	1	69	69	0	9	38
Mego	1	36	36	0	5	20
TOTAL	8	795	183	117		

Sources: Company websites and own calculations.

Aibe unites by far the largest network of shops in Latvia. Of the 795 chain shops in Latvia 23 per cent qualify as super/hyper markets, 15 per cent are discount shops, and the remaining 62 per cent constitute the large chain of *Aibe* shops that do not fall under either category. The latter are more akin to local grocery stores, except that they are united into a chain.

3.2.3 Lithuania

Market shares

The Lithuanian grocery market has developed as shown in the table 7 below.

Table 7: Market share developments by turnover in Lithuania

	2003	2004	2005
1 VP Market	36.1	36.9	38.1
2 Iki	14.7	14.1	14.5
3 Norfa Retail	8.2	11.0	13.1
4 Rimi Lithuania	6.3	6.8	6.1
HHI	1655	1762	1903
CR	65.2	68.9	71.7

Source: Verslo Zinios – "Didžiausios Lietuvos bendrovės pagal Pardavimų pajamas" ["The largest Lithuanian companies by sales revenue"]

In Lithuania we observe a gradual increase in both the Herfindahl Hirschman Index and the 4-firm concentration ratio. Similarly to Estonia, the largest gains were made by the third largest retailer. *Norfa Retail* closed more than half the gap with *Iki*. The very high market shares of *VP Market* throughout this period stand out and give Lithuania one of the highest concentration ratios in Europe. There is also a strong franchise operator, *Aibe*, with 6 per cent of the market in 2005 (not shown in the tables because it is below the top four). Although each shop operates independently they all display the *Aibe* name and hence from the viewpoint of customers appear as a united chain.

Number of shops

The table below shows the distribution of shops among the major Lithuanian supermarket chains.

Table 8: Market share according to number of stores in Lithuania

	Number of chains	2004		2005				
		Number of shops	% of chain shops	Number of shops	% of chain shops	Super/hyper markets	Discount	% of discount
VP Market	2/1	195	21.5	195	20.3	195	0	0
Iki	2	132	14.6	153	16.0	93	60	86
Norfa	1	87	9.6	104	10.8	104	0	0
Rimi Lithuania	2	30	3.3	38	4.0	28	10	14
Aibe	1	462	51.0	469	48.9	0	0	0
TOTAL		906		959		420	70	

Note: The percentage figures show number of stores as a percent of the total national number of chain stores. Sources: Company webpages and personal correspondence.

Hence the total number of chain shops, including the franchise chain *Aibe*, was 906 in 2004 and 959 in 2005. The biggest growth was the 21 shop expansion of the *Iki* chain in 2005. By the end of 2005 *VP Market* ceased to operate discount shops in Lithuania, with the merger of its *Saulute* chain into its main *Maxima* chain. Also apparent from this table is the small average size of the *Aibe* shops, in terms of sales, relative to the others. With 49 per cent of the shops in 2005 *Aibe* only received 6 per cent of total revenue. In 2005, 44 per cent of Lithuanian chain shops were super/hyper markets and an additional 7 per cent were discounters.

3.3 Dynamic competition

Inspection of tables 4, 6 and 8 reveals that competition takes different forms. Thus in Lithuania *VP Market* operates almost exclusively through the hypermarket/supermarket format whereas in Estonia it competes exclusively through the discount store format. In Latvia it operates a mix of hypermarket/supermarket and discount stores with 80% of its stores by number being in the latter category. *Rimi*, by contrast, tends to operate a mix of formats with the discount format dominating in Estonia. A particularly dynamic element in Lithuania as well as in Latvia appears to be the *Aibe* franchise group which started it operations in 1999 in Lithuania and in Latvia in 2002, where its growth has been especially strong. Furthermore the *Aibe* network has by far the largest number of shops in the Baltic states.

From tables 3, 5, and 7 it follows that unlike Latvia, in both Estonia and Lithuania the third ranked retailer substantially increased it market share between 2003 and 2005. In Estonia the market share of *A-Selver* grew by 50% from 8% to 12%. In Lithuania the market share of *Norfa retail* grew by even more than 50% - from 8% to 13%.

3.4 Price transparency

An analysis of the price of a basket of goods in the three Baltic markets would certainly have contributed to the understanding of how the level of competition affects the price level. However, one business practice observed throughout the three Baltic countries concerns the availability of price information. Retailers in the Baltic grocery market appear to have

established the 'business practice' of not allowing systematic price comparisons[15]. This practice, unknown in most of Western Europe, severely hampers the working of market forces since information about prices is one of the foundations of a well functioning market economy. Such 'secrecy' makes price surveys that compare the cost of a basket of groceries from a number of retailers impossible. This type of survey is common in many countries and the results are published regularly by newspapers and consumers' magazines.

4 Conclusions

This paper has analyzed the grocery retail markets in the three Baltic countries, Estonia, Latvia and Lithuania. Applying conventional definitions, the Latvian market is considered to be competitive, the Estonian market moderately concentrated, and the Lithuanian market highly concentrated. These findings are at odds with the attention that Latvian policy makers have devoted to the 'concentrated' Latvian grocery retail market, in contrast to Estonia and Lithuania where the competition authorities have been much less active despite considerably higher degrees of concentration, especially in Lithuania.

Our analysis of countervailing power suggests that impact of the proposed amendments to the Latvian Competition Law is at least debatable.. Indeed, it might be the case that the proposed amendment to the current Latvian legislation will do more harm than good in terms of consumer welfare – a concept almost completely 'forgotten' in the debate. In this context, it is worth emphasizing the general rule when it comes to economic policy making: unless there is strong evidence that markets do not function well, then the policy maker should probably leave them as they are – otherwise there might be a substantial risk that the implemented policy might create economic inefficiencies larger than the ones it tries to reduce.

According our analysis, retailers exercising countervailing power will be able to lower the prices paid to suppliers and to pass on (at least part of) these savings to consumers who accordingly will have to pay less. Given the structure of the Baltic markets, it important to keep in mind that this might be the case even if there are just two major retailers provided their services are perceived as close substitutes. A closer look at the grocery retail markets in all three Baltic countries suggests that the leading retailers might indeed be perceived as strong substitutes for each other and hence that it cannot be excluded that the consumers benefit from lower prices through the countervailing power exercised by the retailers. Although a difficult exercise it would be interesting and informative to test this hypothesis empirically.

The role of retailers has also been explicitly mentioned in the Latvian Government's inflation fighting plan. However, our review of the literature on the links between concentration in product markets on the one hand, and the inflation rate as such on the other, reveals little reason to believe that such link is present in any of the three Baltic countries. Hence, the level of concentration in the grocery retail markets is most unlikely to contribute to inflation.

Given the findings in this report, it is somewhat 'paradoxical' that regulation of the grocery retailers has been (and still is) a big issue in Latvia where the market is more competitive than

[15] For example one of the researchers assisting with research for this report was asked by security to leave a supermarket when he was writing down prices (for a price survey aimed at identifying the 'cost of living' in the Baltic countries).

in Estonia and particularly more so as compared with Lithuania. Hence, one would expect a more active role to be played by the Estonian and in particular Lithuanian competition authorities in comparison to their Latvian counterpart. That this has not been the case suggests that the answer to why the countries have pursued different policies should perhaps be sought not in microeconomic theory but in the theory of political economy that deals with interest groups and lobbying[16].

[16] See Drazen (2000), Chapter 3.7, for an overview of the literature in the field of interest groups and lobbying.

References

Barro, R.J. and D.B. Gordon, (1983). A Positive Theory of Monetary Policy in a Natural Rate Model, *Journal of Political Economy*, 91, 589-610.

Cavelaars, P. (2003). Does competition Enhancement Have Permanent Inflation Effects?, *Kyklos*, 56, 69-94.

Chen, Z. (2003). Dominant Retailers and the Countervailing-Power Hypothesis. *RAND Journal of Economics*, 34, no 4, 612-625.

Competition Commission (2000). *Supermarkets: A report on the supply of groceries from multiple stores in the United Kingdom.*

Competition Council (2004). *Par pārkāpuma konstatēšanu, tiesiskā pienākuma un naudas soda uzlikšanu*, Decision, December 20, 2004.

Dobson, P. and M. Waterson (1997). Countervailing Power and Consumer Prices. *Economic Journal*, 107 (March), 418-430.

Dobson, P. and M. Waterson (1999). Retailer Power: Recent Developments and Policy Implications. *Economy Policy*, 28 (April), 135-164.

Drazen, A. (2000). *Political Economy in Macroeconomics*, Princeton University Press, Princeton, NJ.

Galbraith, J.K. (1952). *American Capitalism: The Concept of Countervailing Power.* Houghton Mifflin, Boston.

Frontier Economics (2000). "The price of beans: the Competition Commission inquiry into supermarkets". *Frontier Economics Bulletin*, November.

Kuplā, Sanita and Tarvāne, Ilze (2006). *Konkurencijas Padomes Piena Turgus Uzraudzība* [The Competitions Council Supervision of the Milk Market] http://www.kp.gov.lv/uploaded_files/petijumi/PIENS_tirgus_uzraudziba.pdf

Kydland, F.E. and E.C. Prescott, (1977). Rules Rather than Discretion: The Inconsistency of Optimal Plans, *Journal of Political Economy*, 85, 473-491.

Neiss, K.S. (2001). The markup and inflation: evidence in OECD countries, *Canadian Journal of Economics*, 34, no 2, 570-587.

Office of Fair Trading (2006). *The grocery market: OFT's reasons for making a reference to the Competition commission*, May.

Przybyla, M. and M. Roma, (2005). Does Product Market Competition Reduce Inflation? Evidence from EU Countries and Sectors, *European Central Bank Working Paper Series*, no. 453, March 2005.

von Ungern-Sternberg, T. (1996). Countervailing Power Revisited. *International Journal of Industrial Organization*, 14, 507-520.