ИНСТИТУТ ЗА ИКОНОМИЧЕСКИ ИЗСЛЕДВАНИЯ НА БЪЛГАРСКАТА АКАДЕМИЯ НА НАУКИТЕ
ИКОНОМИЧЕСКИ ИЗСЛЕДВАНИЯ
ECONOMIC STUDIES

Violeta Dimitrova[1]

ГОДИНА XXVI, 2017, 6

GROSS MARGIN AND BUYER POWER IN BULGARIAN FOOD RETAILING

Increasing concentration in retail trade due to the expansion of physical outlets, the proliferation of online stores and the construction of retail chains results in changes in the bargaining power of retailers. Such changes are further facilitated by the accelerated process of merger, purchase and introduction of own-brands.
This work aims to offer a comparative analysis of the structure of food products manufacturing, wholesaling and retailing in Bulgaria and it studies the level of gross margin in retail trade to research the power of retailers as buyers in the sector. This study makes an overview of the theory of the retail buyers' power in the consumer goods supply chain. The paper further explores changes in the concentration of production, wholesale and retail in Bulgaria between 2001 and 2015 by analyzing the market share of the four companies with the largest sales volume and bargaining power of retailers measured by the level of gross margin.
JEL: M21

1. Introduction

In recent years the question of the power of big retailers as buyers has been subject to analysis, policy debates, legislative changes and initiated proceedings of the Commission for Protection of Competition (2016). The imbalance in bargaining power between counterparties may vertically result in the application of unfair trading practices and competition restrictions. A new chapter in the Competition Protection Act called "Abuse of stronger position in negotiating" was initiated and adopted in Bulgaria in 2015, following public discussions.

This work offers a comparative analysis of the structure of food products manufacturing, wholesale and retail in Bulgaria, and the level of gross revenue in trade in order to discuss the availability of retail buyers' power in the sector. The purpose of this paper is, in the light of economic theory, to estimate the relevant level of concentration of retailers to wholesalers and manufacturers in the Bulgarian food supply chain, explore how changes in the competitive structure of retail trade affect the power of retailers as buyers and the level of gross margin, and make conclusion about the reasons. Observations on the evolution of the competitive retail structure started in the 1950s globally and studies show that

[1] *Violeta Dimitrova PhD is Assoc. Prof. in Varna University of Economics, Bulgaria.*

percentage gross margins are either constant or rise in the majority of trades as one moves from independent shops to chains with a larger number of outlets (Galbraith, 1954). At present, the retail sector in Bulgaria is characterized by higher concentration than the manufacturing sector and a growth of retail gross margin (Dimitrova, 2016). Changes in the group of non-specialized stores selling food, beverages and tobacco are significant. Food production in Bulgaria is more fragmented. It can be argued that the market power and the margins of an individual manufacturer or retailer are a joint function of their horizontal competitive positions against firms at the same level and their vertical bargaining power with firms at the other stage (Steiner, 1994).

Section 2 summarizes the theoretical foundations referring to the power of retailers as buyers and it explains the gross margin as a measure of retail buying and market power, section 3 presents the methodology, section 4 reports the empirical results and section 5 draws major conclusions.

2. Background

Retail Buyer Power

This study is in the context of the economic tradition to analyze the evolution of the retail industry and its influences on the conditions of distribution systems (Dobson et.al., 2000). Initial research and public discussions on the power of retailers as shoppers were associated with the analysis of the countervailing power effect. Galbraith (1952) developed the concept of countervailing power of large buyers that arose from the increasing concentration of industries. Market power of sellers could lead to an increased buyer power (e.g. large retail chains), thus acting as a countervailing force against the original market power of suppliers. He argued that strong buyers could translate to the next customers vertically and subsequently obtain a lower price from suppliers. Galbraith (1952) was trying to prove that the mitigation or regulation of economic power could be achieved not only through competition and state regulation but also by neutralizing the power position with another economic power. In a typical modern market with several vendors, active limitation is performed not by competitors, but on the other side of the market – by large buyers (Madau, Furesi and Pulina, 2016). Those who are subject to aggressive use of economic power have incentives to build organized countermeasures. Galbraith analyzed a grocery chain which extracted wholesale price discounts from food producers and large auto manufacturers that extracted price discounts from steel producers (Snyder, 2005). He argued that retail chains, purchase groups of stores, large houses for mail orders, etc. passed discounts negotiated with suppliers over to consumers by lowering the final price. The reason for that is sought in the form of the production function of retailers.

Galbraith's conclusions are subject to research and discussions even today. One of his first critics is Stigler (1954), who believes that Galbraith's arguments have no rational explanation why large retailers are stimulated to grant customers part of their saved costs as a result of lower delivery prices. The change in the bargaining power of suppliers and retailers only leads to a redistribution of the total profit from the sale without impacting retail prices paid by end customers. Cases of retail price reductions can be explained by the will to prevent inflation. Stigler also states that retail chains are present only where manufacture of the relevant products is not highly concentrated. He points out that there are no big chains in the petroleum or automotive industry for example as production there is highly concentrated. He welcomes innovation in merchandising techniques and the commercial service as a foundation for new formats in retailing.

Hunter (1958) asks the questions 'whether the development of these large scale retail outlets is a direct reaction to the market power of oligopolistic producers", indicating economies of scale as the main reason. He treats the advantages associated with the scale of activity such as the integration of wholesale and retail functions, the lower level of costs due to faster turnover, the allocation of risk between a large number of retail outlets, as related to the organization of business and not to any greater market power. Summaries of different theoretical explanations about the possibility of large buyers obtaining price discounts from sellers are presented by Snyder (2005). One simple explanation is related to the lower cost of servicing large buyers or lower distribution costs per sale unit.

Recently the power of retailers as buyers has constantly increased. Many authors have studied the bargaining power of participants in product distribution. Dobson , as an independent author and co-author, argues that the effects of the power of retailers as buyers should be discussed in terms of 'how differential buyer power affects the competitive position of different buyers" (Dobson and Inderst, 2008). Dobson and Waterson (1997) emphasized that UK authorities, working on competition regulation, remained impassive to rising levels of concentration in the retail sector by adopting the viewpoint 'that greater concentration in retailing may offer benefits through reduced costs which feed through to lower final prices". Reasons can be found in the lower distribution costs resulting from economies of scale of large retailers and their ability to receive suppliers' discounts, mainly manufacturers, due to large quantities of goods purchased. They prove that the scope of positive action of countervailing power is limited, especially in the cases of intense competition in the retail sector. The lower pace of development of US chains in comparison to UK chains at the end of the last century can be explained by adopting the legislation thesis 'that the discounts obtained by large retailers, who under the Robinson-Patman Act of 1936 represent an anti-competitive form of price discrimination, can be used for predatory pricing against smaller rival" (Dobson and Waterson,1997).

Power is interrelated horizontally and vertically. When a company has market power that allows it to extract even more discounts from suppliers relative to its competitors, it may lower retail prices and gain greater market share horizontally, which in turn allows it to get bigger discounts from suppliers for larger quantities purchased. This effect is known as a positive spillover effect. Retail price reduction is an option when the countervailing force can be socially useful for the end customers. Another possible effect that can occur under certain circumstances is the so-called waterbed effect, when as a result of differential buyer power some buyers can gain at both the relative and absolute expense of other buyers (Dobson and Inderst, 2008). Quantity discounts received from major retailers may put others in a worse negotiation position by having to pay higher prices which will result in increased retail prices. As a consequence, losing buyers may have to leave the market as a result of rising purchase prices and reduced gross margins, and as a result of raising retail prices for end users.

Chen (2003) is able to evaluate the hypothesis of countervailing force by using a model which includes Galbraith's assumptions and basic characteristics of the retail sector as an industry. He proves that an increase of countervailing power by a dominant retailer can lead to a reduction in retail prices. However, total surplus is not always increased with the increase of countervailing power, as it may reduce the effectiveness of retail. He has a significant contribution in proving the need for horizontal competition in the retail industry, so the countervailing power can be useful for end users.

Chen (2003) stresses that acquisition of market power by concentrated retailers allows them to obtain more favorable terms for purchasing goods in comparison with other retailers. Chen looks for new explanations on the effect of countervailing power of retailers that Galbraith revealed, namely reduction of retail prices. He justifies the reduction in retail prices mainly by reducing the share of total income remaining for the suppliers from transactions with large chains. The suppliers seek ways to increase declining profits, mainly by increasing sales to other retailers by reducing prices. Therefore, price reduction in retail is a result not from assigning part of the saving costs from retailers to customers, but of suppliers trying to compensate for the reduction in their profits due to the countervailing force of retail chains, thus proving the importance of competition to limit the countervailing power of large retail chains to protect customers. The existence of small retailers is critical when striving to achieve price reduction in retail while exercising countervailing power. Chen points out that the analysis does not support the claim that countervailing power can replace competition as a regulatory mechanism of the economy.

The possibility that ”buying power at the retail level can lead to a rise in wholesale price” is studied by Erutku (2005). The explanation Erutku offers is that retailers without buying power may increase their retail price. Erutku emphasizes that it is hard to determine the effect of an increase in buying power alone on retail prices, as retail prices are a consequence of both the increase in buying power and market power of retailers as sellers as a result of concentration. Therefore, it depends on the effect that will dominate. Regardless of these analyses many questions remain controversial – ranging from how to assess the power of retailers' position as buyers to how the income from sale of products is distributed between the participants and how it affects the welfare of end customers.

Gross margin measurement of power

The study of the power of retailers as shoppers is based on two main approaches - economic and behavioral. In applying the first approach, most of the analyzes are aimed at proving the existence of negotiating power by tracking price changes of producer, wholesaler and retailer and their deviation (Madau, Furesi and Pulina, 2016). It examines the relation between retail concentration and final commodity prices. For example, Dobson and Waterson (1997) examine the effects of increases in concentration at the retail level on final prices.

The possibility of the gross margin to be a measure of the vertical force of traders started to be discussed in the middle of the last century. In the beginning, the factors were studied mainly horizontally, as a prerequisite for changes in gross income variations. Or, gross income variations are mainly used as a measure of market power of retailers and a result of the changes in competitive factors such as concentration of retail industry. Hence, it is difficult to identify the effect of an increase in buying power on retail prices alone, since the price changes are a consequence of both the increase in buying power and market power in retailing (Erutku, 2005). It also applies when we use the level of gross margin as a measure.

The first generalized statistical data on the gross margin in trade was collected in the USA by the Bureau of Business Research in 1911 primarily for the purpose of obtaining teaching material for use in the Harvard Graduate School of Business Administration, founded two years earlier (McNair, 1930). Gross margin is defined as the difference between net sales and the cost of merchandise sold. Thus, the net sales revenue is decomposed into cost of goods sold and gross margin. I hereby join the thesis that the gross margin has received insufficient researcher attention, also as a measure of traders' power as buyers (Camillo and Sayed, 2015).

One of the first publications on the importance of gross margin as a measure of retail sector performance is that of Hall and Knapp (1955) in relation to the improvement of the statistical reporting of the British Census of Distribution and of the quality of empirical analyzes. The sales revenue is a major indicator of business outcome in retail. It is the basis for generating profits and cash flow. Sales ensure sustainable business growth while the reduction of costs is limited. But sales do not fully represent the activities of commercial enterprises in the purchase and resale of goods. Sales revenue does not provide information on the efforts and costs incurred for the realization of sales.

Sales revenues on their own cannot present a complete business result. There is no reason to suppose that provided distribution services are the same for all types of traders (Galbraith, 1954). For example, the volume of commercial services in realization of a sales unit is not the same for the different types of traders, because the volume is determined by a number of factors such as quality of service, degree of readiness of the goods for sale, etc. Stigler (1947) states that it is a big task to construct indices showing the result of a retail business.

Statistically, gross margin is divided into two elements – operating expenses and net income. Consequently, gross margin does not reflect costs associated with the operation of the retailer, but is the result of the bargaining power of a retailer when negotiating with suppliers and of the market power against competitors, horizontally. It shows the efficiency of traders' activities in buying and selling products.

Gross income level (percentage gross margins) does not only depend on sales prices. In the event that all retail businesses sell at the same price, but buy at different prices, those whose delivery prices are lower due to more efficient organization of the purchase activities, effective trade negotiations, receive better quantity discounts or have monopsonistic advantages, will show higher percentage of gross margins, even if they have low levels of distribution cost. This is applicable to large retail chains that obtain bulk discounts and achieve economies of scale, allowing them to retain or increase the level of gross income regardless of whether part of the savings is being transferred to end users in the form of lower prices, or not. It should be pointed that big retail chains take over the functions of the wholesalers by building and maintaining distribution warehouses and receiving part of the total income in the supply chain.

There is a discussion on the variations of gross income commercial companies have as to the volume of sales they make. The conventional view is that the level of gross margin for small retailers is higher due to their exclusive service, manufacturing services or as a compensation for their inefficiency (Hall and Knapp, 1955). For example, in the United States the percentage gross margins of chains were found to be lower than those of independent shops in the inter-war period last century (Bellamy, 1946). However, other studies show contrasting results, including the current study.

Retail trade is characterized by considerable heterogeneity of the product and monopolistic competition. Product differentiation in retail is a result of decisions made by the criteria of consumer choice or of those features customers can evaluate and compare. For example, even in the case of offering the same products and brands at the same price, different physical objects offer different convenience of location. With the introduction of e-commerce, differences between separate online stores are also formed on the basis of easy access and the position of the store in cyberspace. In a local retail grocery market there is a difference in the prices of goods. The level of quality of each product is different. When you offer the same products with the same quality level, service should vary. The information that customers have is imperfect. Even when examining the information electronically customers cannot cover and compare the diversity of opportunities.

Hughes and Pollard (1957) suggest that if the claims of major retailers that they transfer the quantity discounts they receive from manufacturers to final consumers are true, the level of gross margin should not differ too much from that of small retailers. But contrary to that suggestion 'gross margins show very large dispersions, not only as between shops selling similar goods, but also as between shops of similar size selling similar goods'.

According to Steiner (1993), retail gross margin is the scoreboard on which the status of retailer-manufacturer competition is recorded. The brand's retail gross margin (RGM) is the difference between its consumer price (Pc) and the manufacturer's price (Pm) divided by Pc (Steiner, 2001). Thus, the retailer's share of a brand's consumer price is its RGM and the manufacturer's share is 1 – RGM. This same ratio is termed 'gross distribution margin' (GDM) when manufacturers also sell to wholesalers. The negative correlation between margins at the two stages, also called an 'inverse association between the margins of consumer goods manufacturers and retailers' (Steiner, 2001) is widespread, although not a universal phenomenon. Enhanced advertising by producers and distribution of manufacturer brands contributes also to this negative correlation. A brand's retail price depends on the costs and margins of its manufacturer as well as on those of the wholesalers and retailers that distribute it to household consumers.

There are divergent trends in price movements, gross income and advertising costs. For example, advertising can increase the selling price of the manufacturer when the company increases the margin more than the decrease in costs due to increased sales. With a strong manufacturer brand and investments in advertising, competition between distributors and retailers grows. The power of manufacturers decreases when the retailer decides to use a private label, because it disconnects the manufacturer connection with customers built through direct appeals mostly through advertising as a means of promotion. Not only are private retail chain labels a means of positioning aimed to attract customers and form loyalty, they also serve to allocate income between participants in the supply chain, between manufacturers and retail chains.

Retailers are concentrating on better management of the supply chain as one of the main sources of competitive advantage. The increasing concentration of retail chains brought them as important players on the international commodity markets. This gives grounds to investigate the relationship between retail gross margin and import prices of goods. For example research of EU t-shirt import unit prices and cotton spot prices in China as one of top producers of cotton indicates a correlation (European Apparel Retail, 2011). Apparel import price deflation supported EU apparel retailers gross margin expansion in the period of 15 years (till 2011) but some leading players (retailers) improved gross margins over and above import price deflation. Price studies of certain vertically related markets along the supply chain sometimes require a long period of time, for example for the physical flow of cotton – from raw material to input for yarn production, from fabric to manufactured apparel to store delivery.

Gross margin is the price of commercial service. More and more specialists are treating retailers as sellers of various services to producers and wholesalers who are actually paying for their services. Building on the thesis that the buying power can be defined as the "ability of the dominant retailer to extract a larger share of the maximized joint profit generated by the transaction with the supplier" (Dobson, 2000), gross margin level is an important measure of the bargaining power of retailers.

3. Methodology

This research covers the industries of production, wholesaling and retailing of food products in Bulgaria for the period 2001-2015. The beginning of the period was characterized by the first steps of concentration in retailing (after the privatization of the national state and local municipal retail chains), with the creation of national chains, the introduction of foreign chains, the construction of large-structural outlets and early processes of consolidation in the sector through mergers and purchase of existing retail enterprises. This research uses generalized data from the National Statistical Institute of the Republic of Bulgaria, provided at the request of the author, for these three sectors according to Statistical Classification of Economic Activities in the European Community, Revision 2 (NACE.BG-2008) for the period 2008-2015, and for the first half of the period 2001-2008 according to the current classification. When generalizing data the author has complied with the differences resulting from changes in the classification of economic activities and has used NACE.BG-2008 as a reference for the study.

The production of food is statistically presented for sector CA, including classes 10 – Food production and 11 – Production of beverages, Wholesale with G 46.3 – Wholesale of food, beverages and tobacco, and Retail with G 47.11 – Retail sale in non-specialized stores and G 47.2 – retail sale in specialized stores with food, beverages and tobacco. The research does not cover retail sales of food products in open markets, post office sales, internet sales, home delivery and vending machines sales which is a major limitation of the analysis related to the object. Online sales of the traditional retail network and all sales completed through the click and collect system are elements covered by the activity of the physical retail units.

This analysis is descriptive and involves arranging, summarizing and presenting a set of date. In this paper we calculate and analyze the main economic indicators characterizing the state of the competitive structure of the surveyed sectors and the relations between some of the indicators. Primarily, it determines the changes in the concentration of manufacturing, wholesaling and retailing foods in Bulgaria. The level of concentration is measured by the concentration ratio of the four companies (CR4) with the largest volume of net sales due to the fragmented nature of the industries. We accept the thesis that although the Herfindahl index of concentration appears preferable, both measures give consistent and similar result (Inderst, Jakubovic and Jovanovic, 2015). To study the development of chains we have additionally calculated the sales share of the companies - retail chains selling food products and holding more than 10 retail outlets.

An indirect indicator of the relative fragmentation of wholesale and retail is the wholesale to retail sales ratio of consumer goods or the so-called organizational division of distribution. It indicates the sales share of goods that pass first through wholesalers before reaching the end users. When concentration in the retail sector is low, goods sometimes are subject to resale more than once or pass through several wholesalers before reaching the retail unit. Subject to verification is the hypothesis that in the second half of the studied period a decreasing trend of division level is observed which directly relates to enhancing the level of concentration in the retail sector. The emergence of retail chains buying directly from manufacturers and carrying out part of their functions reduces the total quantity of sales in the wholesale market.

As noted in the foregoing section, the buyer power of the retail and wholesale businesses with food products in the food supply chain is measured by the level of gross margin compared to most studies which are aimed at proving the existence of buyer power by tracking changes in producer prices and those of retailers and their deviation. The level of gross margin is calculated as the difference between net sales and costs of goods sold divided by net sales revenue, or as markup percentage. The study is aimed to identify trends in indicator development for the wholesale and retail sectors, as well as for groups of companies, those with the highest sales volume and retail chains operating with more than 10 retail outlets.

Due to the use of temporary statistical series and the possible presence of autocorrelation in the data, the relations between the concentration and the level of gross margin indicators are represented by the coefficient of overtaking. For example, the comparative analysis of the concentration and the position strength of retailers are realized by the overtaking index (index of concentration ratio divided by the index of retail gross margin). We believe this approach to be more relevant to the current situation in Bulgaria, marked by a significant increase in retail concentration after 2000. Statistical planning data by regions is not complete due to problems in statistical data reporting local units' contribution by regions. Concentration ratio and retail gross margin level are relative indicators, therefore, when calculated sales revenues are not reduced to comparable prices.

4. Results

This paper studies the trends in the food retail industry as a whole comparing it to the food manufacturing and wholesaling in Bulgaria. We are trying to determine whether trends shown by the results can be called a structural change. When considering separate short periods of time it seems that there is no connection whatsoever, but when comparing for a longer period of time, relations appear.

During the study period the number of enterprises for retail sale of food, beverages and tobacco in non-specialized and specialized stores for both sectors G 47.11 and G 47.2 initially increased from 31 810 in 2001 to 35 286[2] units in 2009 when it reached its highest or an increase of 110.93%, then the number began to decline reaching 31 615 units in 2015 or below the number of units at the beginning of the period. Differences in both sub-sectors should be pointed out. Retail companies with non-specialized retail outlets decreased from 23 099 in 2001 to 20 074 in 2015, by 3025, or 13.10%, while those with specialized retail outlets increased during the period by 2 869 or 33.08%. The latter being a consequence of the increased presence of large food retail chains mainly developed the network of supermarkets. As a result of the opening of new large retail outlets small retailers in the sector of non-specialized retail outlets left the market and the new ones were forced to seek niche market mainly offered by the specialized retail outlets.

Following 2009 the process of concentration in food retail started to accelerate noticeably. The total number of employees engaged in the food retail sectors of specialized and non-specialized stores increased from 44 338 to 83 956 people, or the average number of employees in a business enterprise increased from 1.39 to 2.66. This process is especially strong in non-specialized outlets where the average number of employees in an enterprise increased from 1.55 to 3.48 people. The number of outlets in the retail sector of non-specialized stores decreased steadily over the period from 29 506 in 2001 to 24 102 in 2015, while the average sales area almost doubled from 32.69 square meters to 56.72 square meters.

The concentration measured by the share of the four companies with the highest sales volume and the sales share of the chains with more than 10 outlets marked a significant growth. Processes of structural changes are quite obvious in non-specialized retail outlets where the presence of the modern super and hyper markets was becoming more tangible.

[2] Data from the National Statistical Institute of the Republic of Bulgaria, provided at the request of the author and own calculations of the author.

Figure 1
Net sales revenue of food, beverages and tobacco in non-specialized shops

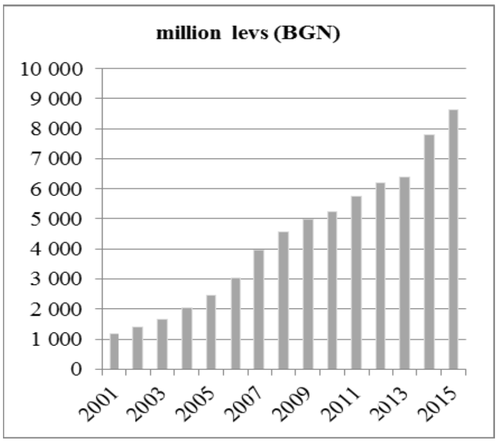
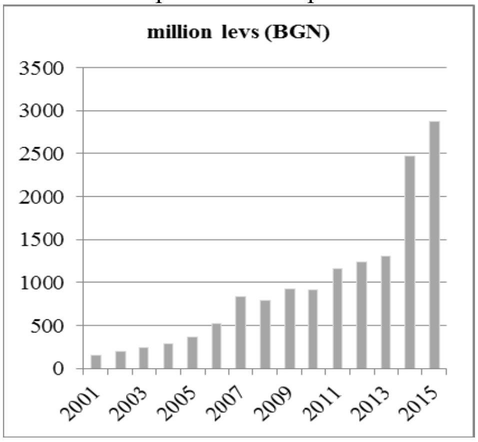


Figure 2
Net sales revenue of the 4 largest companies with food, beverages and tobacco in non-specialized shops



The CR4 index continually increased from 12.59% in 2001 to 33.40% in 2015 or more than 2.5 times which demonstrates the process of concentration especially pronounced in the recent years of the study period. The Euromonitor data show similar results, with 33.40% sales share of the four largest companies in the grocery sector in Bulgaria in 2015 and 33.20% in 2016. According to Euromonitor the group of the largest grocery retailers in Bulgaria for 2015 was formed by Schwarz Beteiliguns GmbH – 20.1%, Rewe Group – 6.2%, Van Holding EOOD – 3.5% and the same market share of 3.4% for CBA Kereskedelmi Kft and Metro AG. As of 2013 Van Holding Ltd running the Fantastico store chain was among the first four. Changes within the group of the top 10 companies were quite significant after the national Piccadilly chain reduced its activity (in 2013 with market share of 2%), Carrefour SA – 2.5% market share in 2013, and after the Penny market chain (Rewe Group), with a market share in 2014 of 2.1%, left the market. The market share of KOOP Targovia I Turizam AD was also reduced from 2.7% in 2012 to 2.2% in 2016. A growth of 1.8% over the past five years marked the market share of Tabak Market AD operating together with Lafka chain.

The share of sales realized by the companies with more than 10 outlets was 26.70% in 2008 and reached the highest value of 44.97% in 2014, decreasing to 38.92% in 2015. Values were similar to those of the CR4 index or apart from the four chains with the largest volume of sales, the other chains with more than 10 outlets realized only 5.52% market share in 2015. The latter indicates that, in general, the sector was fragmented, dominated by companies with less than 10 outlets and with rapidly growing share of large chains in recent years.

The great diversification in retail at the beginning of the study was a prerequisite for the development of the wholesale network. The CR4 index in the wholesale of food, beverages and tobacco increased over the study period from 4.35% in 2001 and reached its highest value of 17.13% in 2015. Slowly but steadily, consolidation in the wholesale sector was a fact, with still very low levels due to high fragmentation. Gross margin levels were almost two times lower than those in the retail sector, resulting from its primary function, large volumes and rapid turnover of stocks. Competitive intensity was high, as shown by the weak variations in the level of gross margin – 12.15% in 2001 and 11.55% in 2015, the highest being 12.35% in 2007.

Figure 3
Net wholesales revenue of food, beverages and tobacco

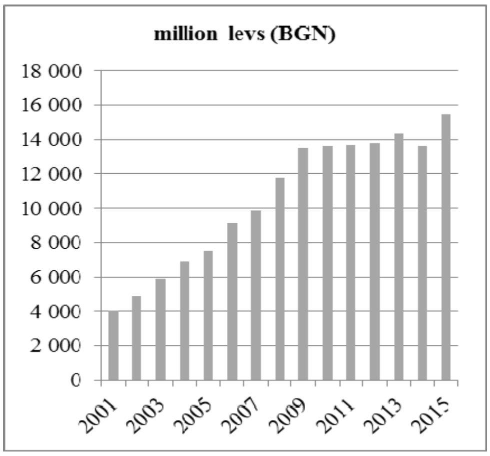
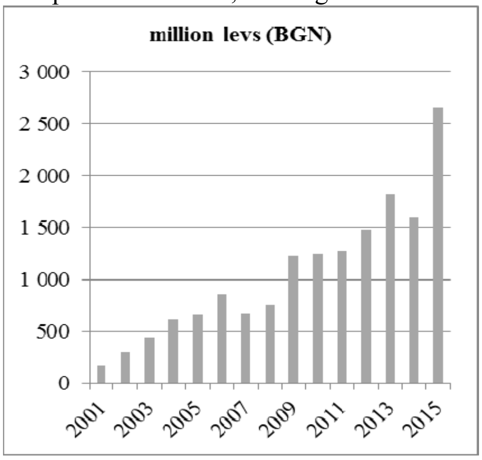


Figure 4
Net wholesales revenue of the 4 largest companies with food, beverages and tobacco

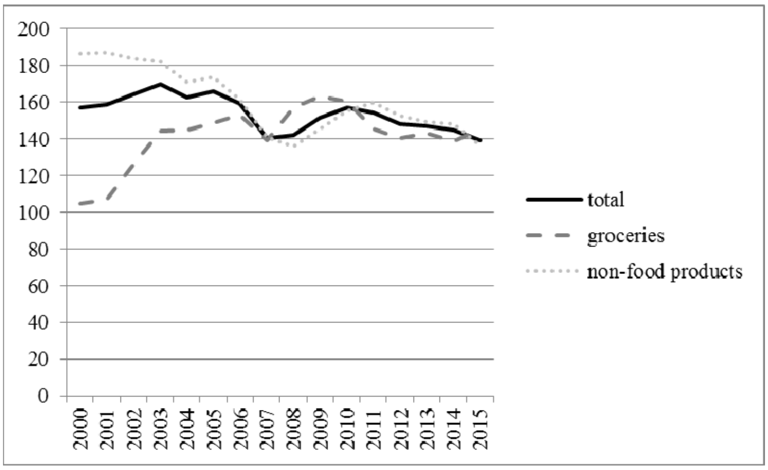


Regardless of the differences related to the nature of goods and the trade situation, the structure of the wholesale and retail trade largely determined the distribution of goods, a trend quite obvious with food products. The increasing concentration in retail and the growing share of chains defined the more extensive use of direct deliveries of goods from manufacturers. The latter being one of the factors to reduce distribution division of food products in Bulgaria after 2009 measured by the ratio of wholesale to retail sales of consumer goods.

Division was different when it came to food and non-food products trading. The non-food products were generally more complex and required conversion of the production assortment into commercial. Durability of food products in general was lower, which also defined the direct deliveries to retail units. Decreased final consumption as a result of the financial crisis also had its impact, as seen from the graph in Figure 5 for 2007. The latter was impacted by export as well. Division is different in different countries, for example, in some countries where national psychology supports small local traders, goods pass through three or more wholesalers before they reach the retailer.

Figure 5

Organizational division in food distribution



Source: Data from the National Statistical Institute of the Republic of Bulgaria and own calculations of the author.

Figure 6

Net Sales Revenue in the food, beverages and tobacco production sector in Bulgaria

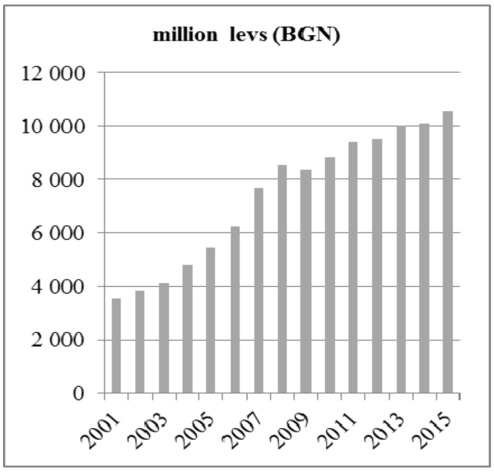
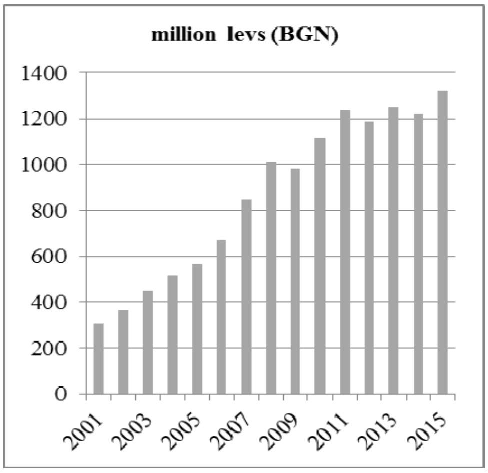


Figure 7

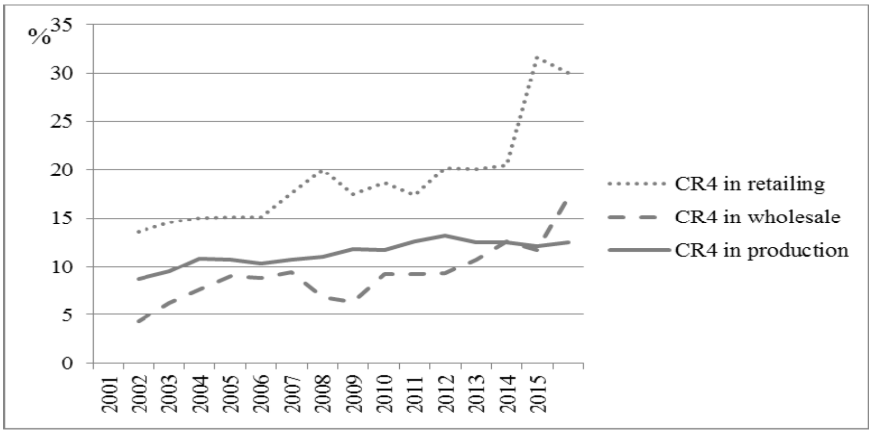
Net Sales Revenue of the 4 largest companies in the food, beverages and tobacco production sector



In comparison to the rising level of concentration in retail and wholesale, concentration in the sector of food production shows slight changes during the period of study. The CR4 index varied from 8.73% in 2001 to 12.49 percent in 2015, with the highest value of 13.13% in 2011. The index was 2.5 times lower than that in food products retailing. Food production was highly fragmented with very low levels of concentration. The higher fragmentation in production resulted in that the retailer purchases comprising a larger portion of an individual seller's sales. Exception to the general low level of concentration of food production was the production of beverages where the CR4 was 47.61% at the end of the period, showing an increasing trend of 27.16% in 2001, retention after 2008 and the highest value of 50.21% in 2009.

Figure 7

CR4 in food retailing, wholesaling and production in Bulgaria



Gross margin trends can be examined against the background of structural changes in the surveyed sectors. Data in Table 1 show significant changes in the volume and level of gross margin in Bulgarian food retailing. A high markup indicates abnormally high profits, whereas a high margin may simply reflect the fact that a sector is highly capital intensive (Competition within Sectors in France, 2008). Usually, the firms tend to reduce their margins in periods of weak economic activity and raise them again in periods of expansion. The level of gross margin to total net sales revenue for the food retailing sector decreased from 19.52% in 2001 to 16.16% in 2008, followed by an increase to 18.62% in 2015.

Despite the reduced demand after 2008, Bulgaria shows a gross margin increase of major retailers. At the beginning of the period gross margin ratio of the four largest companies for food retail was relatively low during the initial introduction of chains – 12.52% in 2001, lower than the average for the sector. After 2005 the gross margin ratio of the four largest companies constantly outpaced the average for the sector as the gap continued to increase at the end of the period reaching 23.58% against 18.62% for the sector as a whole. We can do a more thorough research by company group within a certain type to check if the rate of gross margins has a U-shape, high margins for very large and very small retailers and low margins for medium-sized retailers.

Table 1

Retail sales and gross margin in the food retail sector in Bulgaria

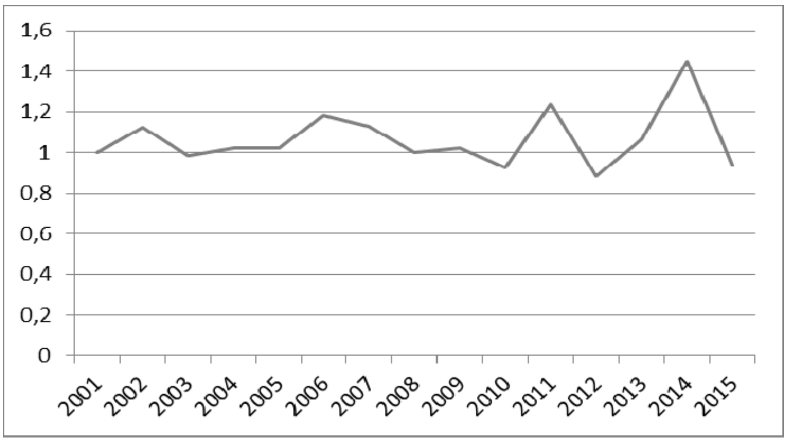
Years	Net retail sales (thousand levs BGN)		Gross margin (thousand levs BGN)		Cross margin ratio or markup (% of the net sales)	
	Total	*CR4*	*total*	*CR4*	*total*	*CR4*
2001	1 570 814	149 587	306 670	18 725	19.52	12.52
2002	1 799 286	201 187	335 082	28 986	18.62	14.41
2003	2 94 851	241 756	408 430	39 011	19.50	16.14
2004	2 502 217	293 377	479 511	50 759	19.16	17.30
2005	2 965 173	365 996	557 200	69 653	18.79	19.03
2006	3 525 015	520 105	646 839	101 794	18.35	19.57
2007	4 540 687	841 546	840 760	170 334	18.52	20.24
2008	5 268 700	794 808	851 394	143 561	16.16	18.06
2009	5 824 161	931 670	982 144	204 194	16.86	21.92
2010	6 134 714	913 803	1 040 847	202 214	16.97	22.13
2011	6 716 182	1 160 974	1 071 977	188 779	15.96	16.26
2012	7 306 494	1 239 899	1 312 069	247 945	17.96	20.00
2013	7 512 645	1 305 643	1 294 379	280 272	17.23	21.47
2014	9 092 826	2 466 389	1 671 272	558 100	18.38	22.63
2015	9 795 120	2 880 192	1 823 771	679 125	18.62	23.58

Source: Data from the National Statistical Institute of the Republic of Bulgaria, provided at the request of the author and own calculations of the author.

The four major retailers significantly reduced the share of cost of goods sold in net sales revenue, from 87.48 % in 2001 to 76.42% in 2015. The total financial result of the four largest chains of food retailers for the period 2009-2013 was negative. During the studied period big chains were mainly investing in expanding trade networks and market shares.

Figure 8

Outpace ratio of the concentration growth rate to the gross margin growth rate in food retailing in Bulgaria



The outpace ratio (Fig. 8) is used to show the relation between indices of concentration in food retail sector and those of gross margin level. Values greater than 1 during most of the period give us reason to assume there is a relation between those indicators as the index number of concentration in food retail outpace the index number of gross margin level. The increasing concentration of retail is not only a function of the developed countries. Unlike some developed European countries where both the buying and selling side of the market tends to be concentrated, in Bulgaria in the last year of the studied period, CR4 in food manufacturing was significantly lower –12.49% compared to CR4 in food retailing – 33.40%. According to the default values of the market concentration coefficient in the Methodology of the CPC (Commission for Protection of Competition) used to study and determine the market position of the companies on the market, the food market remained normally competitive with low concentration values of CR4 of less than 50% in the three sectors of the study. Consolidation in retail and wholesale increased sharply after 2013, unlike manufacturing, where it was reduced after 2011. The increase in concentration in retailing improved the chances of major retailers to exercise their bargaining power as buyers as well as sellers. This process can make some manufacturers and suppliers lose their powers as sellers.

Conclusion

The evolution in the structure of food retail, wholesale and production sectors in Bulgaria provides unique research opportunities. Though the food market remains relatively unconcentrated on both the buying and selling side, the retail sector in Bulgaria is characterised by concentration growth and significantly higher concentration than manufacturing and wholesale sectors. The research results give reasons to predict that the process of concentration in the food retail trade in Bulgaria will continue, which in turn will lead to an increased power of retailers as buyers.

In recent years, the gross margin of major retailers has grown by reducing the share of purchase costs in net sales revenue. That reflects on the gross margin in the food retail sector as a whole. But the increase in the level of gross income is also the result from the fact that big retail chains take over the functions of the wholesalers by building and maintaining distribution warehouses and receiving part of the total income in the supply chain. Studies in the field of innovations have also been made, “when a large retailer grows in size, this can lead to a shift of innovation activity away from manufacturers to the large retailer” (Inderst, Jakubovic and Jovanovic, 2015). Powerful buyers may discipline the pricing policy of powerful sellers, but when the producers and wholesalers in the upstream are fragmented and have no substantial market power, it can lead to a transfer of wealth from producers and wholesalers to the large buyers.

Increased concentration in retail lowers manufacturers’ alternatives for sales, therefore, ‘the bargaining position of each retailer is improved” (Erutku, 2005). The question about the growth of bargaining power of major food retailers when negotiating as buyers will gain greater significance for Bulgaria’s development and should be the subject of further research.

Results confirm one of the conclusions experts have come to – that an increase in concentration at retail level can lead to an increase in buying power for all retail firms. This is not only associated with obtaining quantitative discounts but better contract terms as well. The power retailers have over suppliers when negotiating discounts as buyers is determined by the nature of their relationships. Reasons for getting discounts by the big buyers can be found in: - the lower costs for servicing a larger buyer; - the possibility of backward integration, vertically, and penetration into the business of the supplier; - the high level of concentration of buyer market versus seller market.

Supply chain management of trade enterprises is concentrating on reducing delivery and purchase costs. When a commercial enterprise combines its operations with those of suppliers and customers to create value, this leads to cooperation. But although the participants in a distribution channel have common goals – creating value for consumers and realization of products, they differ in how they achieve these goals and in the distribution of the received income. During this exchange, the actions of cooperation and competition occur simultaneously as a result of the collective character of exchange as an economic activity. Creating value is not a separate action, but a collective activity that defines the interdependence of the participants on the market. Collective action implies interdependence, which in turn is a source of both cooperation and competition.

References

Bellamy, C. (1946a). Size and Success in Retail Distribution. – Bulletin of the Oxford University Institute of Statistics, 8, p.330.

Camillo, L. and Sayed, N. (2015). Do Changes in Gross Margin Percentage Provide Complementary Information to Revenue and Earnings Surprises?. – Review of Accounting and Finance, 14 (3), p. 239-261.

Chen, Z. (2003). Dominant Retailers and the Countervailing-Power Hypothesis. – RAND Journal of Economics, 34(4), p. 612-625.

Competition within Sectors in France. (2008). – Tresor Economics, Republique Francaise, 27, p. 2.

Decision № 331 and № 417 of Commission for Protection of Competition. (2016). Sofia, Available at: http://reg.cpc.bg, [Accessed 1 February 2017].

Dimitrova, V. (2016). Concentration and Buyer Power in Bulgarian Food Retailing. – SGEM Social Conference, p. 185-192.

Dobson, P., Clarke, R., Davies, S. and Waterson, M. (2000). Buyer Power and its Impact on Competition in the Food Retail Distribution Sector of the European Union. Available at: http://idei.fr/sites/default/files/medias/doc/conf/fpi/papers_2000/dobson.pdf [Accessed 22 January 2017].

Dobson, P. and Inderst, R. (2008). The Waterbed Effect: Where Buying and Selling Power Come Together. – Wisconsin Law Review, 4(10), p.334.

Dobson, P. and Inderst, R. (2007). Differential Buyer Power and the Waterbed Effect: Do Strong Buyers Benefit or Harm Consumers? Available at: https://www.researchgate.net/publication/265748191, [Accessed January 2017].

Dobson, P. and Waterson, M. (1997). Countervailing Power and Consumer Prices. – The Economic Journal, 107(441), p. 418.

Erutku, C. (2005). Buying Power and Strategic Interactions. – The Canadian Journal of Economics / Revue canadienne d'Economique, 38(4), p. 1160-1161.

European Apparel Retail. (2011). The Gross Margin Saga. The Impact of Sourcing Cost Inflation and How European Retailers are Reacting. – Berstrain research, p. 27-59.

Madau, F., Furesi, R. and Pulina, P. (2016). The Existence of Buyer Power in the Italian Fresh Milk Supply Chain. – British Food Journal, 118(1), p. 70-82.

Galbraith, J. (1952). American Capitalism: The Concept of Countervailing Power. New York, Houghton Mifflin, p.112.

Galbraith, J. (1954). Countervailing Power. – The American Economic Review, (442), p.1-2.

Hall, M. and Knapp, J. (1955). Gross Margins and Efficiency Measurement in Retail Trade. – Oxford Economic Papers, New Series, 7, (3), p. 312-326.

Hughes, J. and Pollard, S. (1957). Gross Margins in Retail Distribution. – Oxford Economic Papers, New Series, 9, (1), p. 75-79.

Hunter, A. (1958). Notes on Countervailing Power. – The Economic Journal, 68(269), p. 90.

Inderst, R., Jakubovic, Z and Jovanovic, D. (2015). Buyer Power and Functional Competition for Innovation. Available at: https://mpra.ub.uni-muenchen.de/61214/1/MPRA_paper_61214.pdf, [Accessed January 2017], p.1.

Lana, H., Schmitz, A. and Cothern J. (1079). Beef Wholesale-Retail Marketing Margins and Concentration. – Economica, New Series, 46 (183), p. 297-298.

Low on Protection of Competition (2015) amendment, №56, July.

McNair, M. (1930). Margins, Expenses and Profits in Retail Trade in the United States as Studied by the Harvard University Bureau of Business Research. – The Economic Journal, 40(160) , p. 599-632.

Snyder, C. (2005). Contribution to the New Palgrave Dictionary. George Washington University, Washington, March 23, p. 1.

Steiner, R. (1993). The Inverse Association Between the Margins of Manufacturers and Retailers. – Review of Industrial Organization, p. 717-740.

Steiner, R. (2001). Manufacturers' brand advertising and how it infuences manufacturers' and retailers' margins. – Journal of Marketing Communications, 7, p. 35-46.

Stigler, G. (1947). Trends in Output and Employment. – National Bureau of Economic Research, Inc., New York, p. 15-16.

Stigler, G. (1954). The Economist Plays with Blocs. – The American Economic Review, Vol. 44, N 2, May, pp. 9-12.

National statistical institute. Republic of Bulgaria, http://www.nsi.bg/en; http://www.portal.euromonitor.com/portal/analysis/tab.