

Oligopoly competition in the market with food products

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Abstract: Oligopoly can be defined as a market model of the imperfect competition type, assuming the existence of only a few companies in a sector or industry, from which at least some have a significant market share and can therefore influence the production prices in the market. Many models of oligopoly that differ from one another mostly in the nature of the competitive companies' behaviour can be found through the study of oligopolistic structures. Some models describe only the behaviour of two companies in the monitored market (duopoly), others describe several companies of the same power (cartel), still others assume that one of the companies has a dominant position in the market, etc. The text of this article deals with oligopolistic competition in the food market in the terms of the behaviour of grocers and with the impact of this competition upon the market competition in the sector. First, it mentions the agreements on common cooperation and procedure, when cartel market structure originates. It also analyzes the examples of behaviour of oligopoly with a dominant firm on the market with products in the food sector, with the goal of detecting whether the market with these products is significantly influenced by the oligopolistic behaviour of companies.

Key words: oligopoly competition, oligopoly with dominant firm, cartel, foods, food market, chain stores

Oligopoly can be defined as a market model of the imperfect competition type, assuming the existence of only a few companies in a sector or industry, from which at least some have a significant market share and can therefore affect the production prices in the market. When behaving as an oligopoly, an offering company influences the market demand and offer of the entire sector and therefore, while choosing an offer in the market, it has to count – besides the demand – also with the reaction of its competitor to its choice; at the same time, it itself reacts to the choice of its competitors.

Many models of oligopoly are found while studying oligopolistic structures. These models differ from each other mostly in the nature of the competitive companies' behaviour. Despite of this (according to Samuelson, 2004), these different models agree in several assumptions:

– *the existence of a small number of companies in a sector*

It is usually about big companies with a deciding part in the offer of a sector. Some models describe only the behaviour of two companies in the monitored market (duopoly), others describe several companies of the same power (cartel), still others assume that

one of the companies has a dominant position in the market, etc.

– *the nature of production*

In oligopolistic sectors, companies can make either homogeneous or heterogeneous (substitute) production. If the companies create goods close to the homogeneous type, we talk about homogeneous (or clean) oligopoly. In such a sector, competition creates a tendency towards the united and balanced market price of goods, because there is an especially strong dependence of companies on each other, and therefore even the slightest change in price by one of them significantly affects the behaviour of other companies. The often mentioned example of homogeneous oligopoly is oligopolistic competition in the production of agricultural crops (corn, bananas, coffee, etc.), where several large companies have almost an identical production.

If companies in oligopoly create differentiated goods and services that are substitute to each other, we talk about heterogeneous oligopoly with differentiated market prices. Differences among products of the individual oligopolistic companies are usually not significant, we talk about close substitutes. The sectors of the production of meat and meat products,

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pastry, confectionery, etc. can be named as examples of producing differentiated products in the food industry. At the same time, competition exists both in the price and non-price forms, represented by product innovations and advertisement. In connection with the analysis of heterogeneous oligopoly, where output is differentiated, a problem of delimiting the market of the given product arises. Should we for example analyze the “pastry market” or individual markets based on one kind of pastry? The concept of the product line helps solve this problem; or one can accept the Varian definition of market, or sector, which considers sector as “an aggregate of companies making products that are regarded by consumers as close substitutes” (Varian 1993).

– *The possibility of each company in a sector to make real estimates regarding the reactions and actions of competitors*

This possibility is given by the fact that - contrary to the monopolistic competition - there are only several big companies in the sector, and it relates to the fact that each company is able to affect the change in the overall offer of the sector by changes in its own offer. Each company has a possibility to control the entire market demand in the sector by the means of its relatively higher part in the whole market offer of goods. If a competitor is to react to the change in the market price (market amount) of a company, this change must affect the change of his/her market price and market amount. This forces him/her into a retaliatory action.

– *Limitation (barriers) of the entry of new companies into a sector*

It allows for a longer-lasting existence of several few big companies in a sector. Typical forms of barriers against the entry of new companies into an oligopolistic sector are relatively high costs of the capital needed to start a new company, patent limitations, the preference of consumers in relation to the existing companies and the arrangements or agreements among the existing companies. If the economy of scale constitutes the barrier against the entry into an oligopolistic sector, then each company attempting the entry into the sector should reach similarly low average costs in production as the already existing companies in the sector. However, a part of the barriers is not invincible; we can therefore assume a situation when, after overcoming the mentioned difficulties, other companies enter an oligopolistic sector. In some cases, companies in oligopoly use the so-called limit price as a barrier against the entry of new companies. This price is set at a lower level than the price with which the oligopolistic companies could maximize profit when not being threatened by

the entry of companies from other sectors. However, a condition for applying limit prices is a common action of oligopolistic companies.

MATERIAL AND METHODS

The goal of the paper is to find out whether the oligopoly with the dominant firm competition happens to be created in the food-products market, in what range this competition appears in the given sector and whether it can notably influence the price level of the food products and therefore have an important impact on the consumer demand in the Czech Republic.

The basic theoretic model of oligopoly competition behaviour in the conditions of the post-industrial society introduced by Samuelson (2004) is a basis for the firm's oligopoly behaviour investigation for most of the mainstream economists. The development of this theory of oligopoly into the concrete market sector conditions is determined especially by the Varian's microeconomic analysis of an oligopoly sector; it is particularly focused on the definition of a product group. Both the neoclassic and the neo-Keynesian economic theories (Schiller) note not only a differently defined types of oligopoly with a dominant firm, the collusive oligopoly or duopoly models, but they also underline the need of the government control over the oligopoly's market behaviour, even if there are notable differences in the particular approaches. Tversky and Kahneman in their papers (1979, 1992) deals with the question of the subjects' behaviour in risky markets, that is under the conditions of risk and uncertainty; that is how he introduces the behaviourism in the economic thinking.

The main methods used for the scientific investigation are: the method of description (a description of market separation among food chains), the economic-mathematic modelling method (used for modelling of the maximum profit of oligopoly with the dominant firm), further the mathematical method (graphs), the method of analysis and synthesis and partially other methods.

While elaborating the study, the source was public data from the ÚOHS about the most significant detected and sanctioned cartel agreements in the years 1990–2008 in the food production sector (Zemědělství... 2008). Next source was a statistical study presented by the Incoma company about the firm's turnovers in the field of food production in the years 2008 and 2009 (Incoma... 2009). For the theoretical part elaboration, the publications of famous American economists, dealing with the issues

of the oligopoly market structures and market risk, published in the *Agricultural Economics – Czech* (Šrédl 2010), were used.

RESULTS AND DISCUSSION

Oligopoly with a dominant company

Oligopoly with a dominant company is an oligopoly market model where a strong (dominant) company occurs, for which it is advantageous to give up part of the market to weaker competitors at the so-called competitive fringe (edge). On the bigger part of the market, which it keeps, the dominant company then behaves as a monopoly.

A dominant company is generally surrounded by many smaller companies in the sector; sometimes several middle-sized companies occur also next to small companies in the sector. However, these small and middle-sized companies at the competitive fringe are not able to influence the market in any fundamental way by their decisions about the amount of the production or price.

We assume that the companies at the competitive fringe behave in the same way as the perfectly competing companies; they can sell any volume of production for the price established by the dominant company and the demand curve after their output is therefore horizontal, given the established price.

Determination of the optimal output (Q_D) and price (P_D) of a dominant company is represented by the Figure 1.

The offer of companies of the competitive fringe is composed from the horizontal distance between the

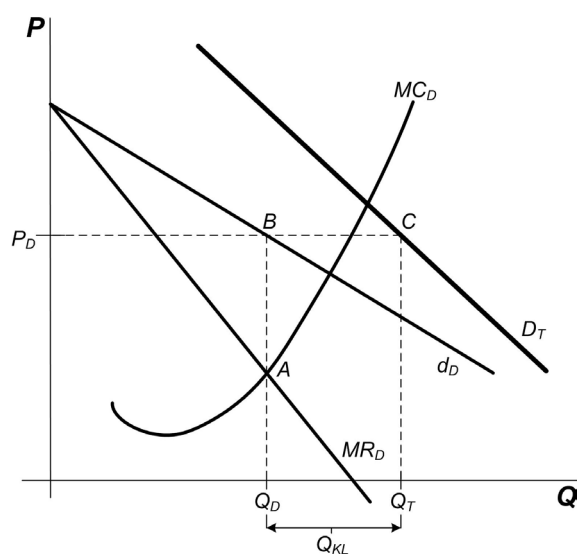


Figure 1. Oligopoly with a dominant company

market demand curve (D_T) and the curve of demand for production of the dominant company (d_D). The demand curve after the output of the dominant company is reached by subtracting the offers of smaller (alternatively middle-sized) companies from the entire market demand.

The equilibrium point of the dominant company (A) is found in the intersection of its curves of marginal costs (MC_D) and marginal incomes (MR_D); based on the “golden rule of profit maximization”, the dominant company derives its optimal output (Q_D) and optimal price (P_D). At this price, the companies at the competitive fringe offer output (Q_{CM}) originating as the difference between the overall output of the sector (Q_T) and the offered amount of production of the dominant company (Q_D).

The large firm is assumed to determine the price in the market and the firms in the competitive fringe act as price takers. Therefore, the large producer sets its price by maximizing profit subject to its residual demand curve (Tasnádi 2010). Since these small (alternatively middle-sized) companies – due to their size – do not have yields from the volume of production, their cost conditions are worse compared to the dominant company, and therefore they cannot offer production for a lower price than the dominant company is selling for. If they sold production for a price higher than the dominant company, considering the substitutability of their products, the companies of the competitive fringe would risk the decrease in sales with a large part of their customers (in favour of the dominant company’s products).

In the model of oligopoly with a dominant company, the price of production is determined at a lower level and the volume of output is bigger than in monopoly. It is the consequence of oligopolistic competition, although limited; therefore, even in this case the price of output stays higher than the average costs ($P = AR > AC$), so oligopoly is realizing a higher than normal gain, that is, a net economic profit. If the price for which the dominant company is selling allows the companies at the competitive fringe to create net economic profit, to extend their production at the expense of the dominant company, one of these companies can later replace the dominant one on its place of the price leader. The leader is usually the biggest company in the sector, with the lowest costs, a long tradition, a well-known brand, etc.

The model of oligopoly that assumes changing companies in the role of the price leader is in the economic theory called a model with the *barometric* company; it expresses a certain instability in the sector as a result of the efforts to redistribute markets, movements of prices, etc. (Šrédl 2009).

Application of the presented model at the food sector conditions

Here we present a numerical example of the *oligopoly with dominant firm*. The curve of market demand after bananas offered in the Czech Republic is given by the following relation $P = 50 - 2Q$; part of the market demand, which accrues to the dominant firm Schwarz ČR, can be described as $p = 30 - q$, the costs of the dominant firm are then: $AC = MC = 10$. All of the retail firms within the sector maximize their total profits.

Solution

We result from the golden rule of maximal π for the dominant firm:

$$MR_{DF} = MC \quad (1)$$

$$TR_{DF} = p \times q = (30 - q) \times q = 30q - q^2 \quad (2)$$

$$MR_{DF} = \frac{\partial TR}{\partial q} = 30 - 2q \quad (3)$$

$$30 - 2q = 10 \quad (4)$$

$$q_{DF} = 10 \quad (5)$$

and there we get the volume of the offered production by the dominant firm Schwarz ČR, $q = 10$. The price, for which the firm Schwarz ČR sells, we calculate from the equation $P_{DF} = 30 - q = 30 - 10 = 20$.

The volume of production, which will be supplied by the competitive fringe (smaller, eventually middle sized firms), we get by subtracting its supplies from the total banana supply in the market in the Czech Republic (Q_T).

$$Q_T \Rightarrow P = 50 - 2Q \Rightarrow Q_T = 25 - \frac{1}{2} \times 20 = 20 \quad (6)$$

$$q_{CM} = Q_T - q_{DF} = 15 - 10 = 5 \quad (7)$$

The price, to which the competitive fringe will adapt, is:

$$P_{CM} = P_{DF} = 20 \quad (8)$$

The given model of the oligopoly with a dominant firm can be applied only on a particular product. Its sales, resp. production are given by the value of Q in this model. It stands that:

(a) According to the commodity differentiation of the retail chains (thousands kinds of items), we only can use the presented model for calculating the allocation of the demanded quantity of a certain commodity (e.g. bananas) and the price of the commodity, while assuming the estimated demand curve and the marginal costs of the firms.

(b) For the determination of the dominant firm's position in the market, the ÚOHS uses, for practical reasons, the criterion of 40% share of the relevant market; in our case, the share is expressed by using the retail chains in the relation to their revenues, understood as a cumulative indicator of the financially expressed production.

Recognition of the firm's dominance in the food products market in the Czech Republic (in case of retail chains)

The objective of the following analysis is to find out whether the described type of oligopolistic competition (with a dominant company) occurs in the sector of selling food products, or whether there exists a different type of competition. That presumes expressing the market situation in the sector using the analysis of the market share of the individual companies in the sector of food products. For this purpose, it is first necessary to determine an indicator which will best characterize the market shares of companies. With respect to the variety of products in the food industry, physical indicators of production cannot be used to express the market power of companies. By contrast, using a monetary aggregate of sales (in billions of CZK) can be considered appropriate. The Table 1 informs about the income from operations of chain stores in the Czech Republic in the given indicator during the last years:

However, one needs to be aware of the fact that only some of the named chain stores are engaged in the retail sale of groceries, in our case, these are particularly the companies Schwarz, Rewe, Tesco Stores, Ahold, Globus and Spar. The companies Makro and Peal are oriented primarily on the wholesale customers. There are also smaller chain stores with food products offer in the given market that are not among the ten largest traders in the Czech Republic (TOP 10); these are for example the chains Norma, Žabka or others. Competitiveness of the market is highlighted by the onset of small producers and farmers, often specialized in bio-products in the markets of big cities (so-called farmers' markets), who can regionally compete with the large chain stores thanks to the freshness and quality of their products and who can therefore take away some of their customers.

As is evident, the business of the mentioned chain stores, focused mostly on selling food products, is capitally mainly in the ownership of German companies. An important exception disturbing this superiority are the chain stores Tesco owned by the British capital and Ahold with a Dutch owner. When

Table 1. Chain stores according to sales (in billions of CZK, including VAT)

Ranking		Chain	Sales		Year-to-year change (%)
2009	2008		2008	2009	
1.	1.	Schwarz ČR (Kaufland, Lidl)	54.5	59.0	+8.3
2.	5.	Rewe ČR (Billa, Penny Market)	38.5	48.5	+26.0
3.	2.	Tesco Stores ČR	47.0	46.5	-1.1
4.	3.	Ahold Czech Republic (Albert)	44.0	43.0	-2.3
5.	4.	Makro Cash&Carry ČR	39.5	36.6	-7.3
6.	6.	Globus ČR	25.4	26.3	+3.5
7.	8.	GECO Tabak	17.5	17.2	-1.7
8.	9.	Spar ČR (Interspar)	14.0	13.8	-1.4
9.	10.	Peal	9.3	9.5	+2.2
10.		Ikea	8.5	9.0	+5.9

Source: Incoma research, Moderní obchod

importing firms are domestic, the domestic welfare change is definitely positive. However, in the case of foreign importing firms, the direction of the welfare change crucially depends on the demand elasticity (Byeong-Il and Hyunok 2009).

An important fact of this market sector of chain stores is its relative market stability. In the terms of the shares of companies in the market (expressed as the companies' sales), the only exception in the last monitored five years was the take-over of the chain store Plus by the Rewe company (from the Tengelmann company), which strengthened its position in the market (Figure 2).

The largest businesses in the Czech Republic, as it is seen in the previous graph, so far cannot complain about the crisis. According to the released results, the customers spent overall 309.4 billions CZK in

the ten largest chain stores in 2009, which is only by 2.8 billions less than in the year before. Some of the reasons of this decline are the stagnation of the goods' prices and a drop in the consumer demand, both with effects on the development of business sales. However, the main reasons for the decline in sales of the largest businesses are not the changes on the side of the shoppers, but the changes in the structure of the chain stores. In the first place, there is the final departure of the chain Plus from the market (and therefore a "drop-out" of its turn-over from the TOP 10) and the incorporation of most of its shops into the chain Penny Market. During the remodeling and transfer of the shops among the chains, the occurrence of a drop in the total sales is typical.

The ranking of businesses has changed by that compared to the previous year. The Schwarz group

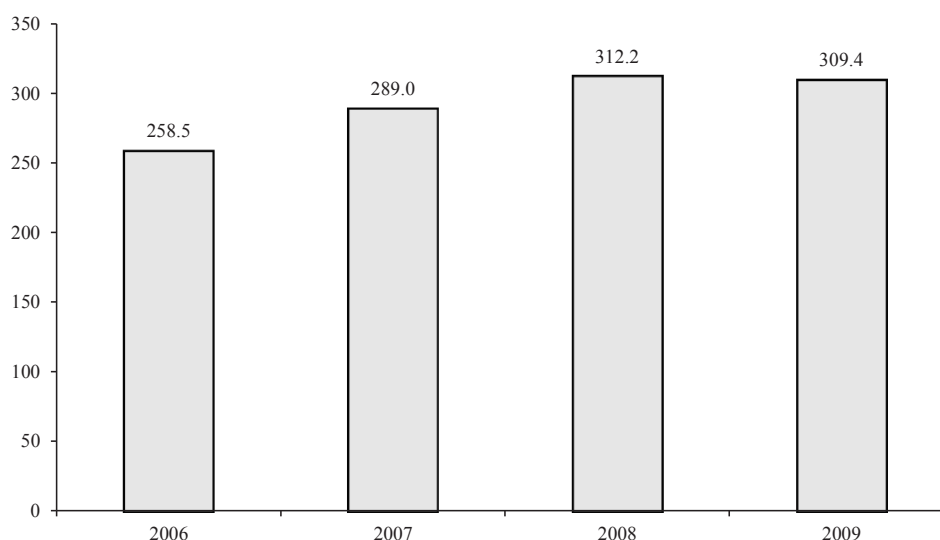


Figure 2. Sales of the first ten chain stores (billions of CZK)

remains number one in the Czech market – its hypermarkets Kaufland and Lidl have increased their overall sales to 59 billions CZK. The acquisition of the last years (Delvita, Plus) together with opening new stores moved the whole Rewe group (Penny Market and Billa) to the second place in the Czech market, right behind the Schwarz group. The Rewe improved mainly thanks to the take-over of the discount chain Plus from the Tengelmann company (in conversion for more than six billions CZK) finished last year. The fact that due to this acquisition, one of the strong businesses disappeared from the market, has at the same time a big influence on the lower sales of the biggest chain stores from the TOP 10.

A similarly successful year was experienced by the Tesco group (third place in the ranking) which quickly got stronger mainly in the area of smaller business formats (Tesco Express, Tesco supermarket), and at the same time it started an ambitious remodelling of its department stores to a new brand Tesco My. However, the most extensive remodelling on the market took place in the company Ahold, where a consolidation of hypermarkets and supermarkets under the common brand Albert was realized (overall 279 stores). The company simultaneously closed the less efficient and conceptually unsatisfactory shops, changed the assortment and limited the size of many stores with the goal of a higher operational effectiveness. Such a radical cut manifested itself in the decline of sales and in the company placing as fourth in the ranking.

Also the company Makro Cash&Carry placed in 2009 in the first half of the rankings, but it felt the impacts of the consumer demand most painfully and its sales dropped almost by 3 billions to 36.6 billions CZK, as a result of the decline in both of its key markets – the restaurant facilities and small businesses. The company plans to change its sales assortment and to completely cancel the sale of certain non-food assortment.

The company Globus opened one new hypermarket in 2009. With its 14 stores, it reaches a respectable turn-over of 26.3 billions CZK and the sixth place in the ranking. The company GECO TABAK extended its retail activities and placed seventh. The group SPAR, represented mainly by the Interspar hypermarkets, moved to the eighth place. The ninth place belongs to the (mostly wholesale) company Peal. After a long time, a new entity got into the TOP 10 as well – the company IKEA appears in the tenth place thanks to the permanent growth of sales and the concentration of the market.

Nevertheless, the dynamics of the sales growth of the ten largest businesses has slowed down. While their

sales in 2007 increased by 12 percent (year-on-year), in 2008 it was only by 8 percent. So far it cannot be said whether the businesses already felt the impact of the world financial crisis – which hit the Czech Republic at the end of the last year – on their sales last year. The growth of the retail sales will stop this year; some businesses already openly admit that they count even with a decline.

There will be a mild decline in the food sector, slowing down can be a little sharper in other areas. The situation will differ considerably in the individual regions. Sales will decrease in the areas with a high unemployment. It should also be pointed out that some retail networks are stopping their additional expansion. For example, the German company Ratisbona, which was building shopping centers in the regions, is now leaving the market.

Growth of the chain stores with food products

Although the sales did not grow as fast as the chains were used to in the last year, it did not discourage the businesses from building new stores. Several tens were added last year by the strongest “players”. That applies especially to the format of discount stores and hypermarkets, with which the Czech Republic dominates the region of Central and Eastern Europe, based on the conversion of square meters (of stores) to the number of inhabitants.

However, the chains want to grow further this year as well. The Tesco store chain wants to add thirty new shops during this year, one third of that should be hypermarkets. With hypermarkets, there were 117 m² of the sales area per 1000 Czech inhabitants already last year, which is – for comparison – twice as much as in Poland. Nevertheless, there are still localities worth entering; it is not about the size of the given town but about the size of the given attraction zone.

But not everybody can potentially withstand the expansion of the strongest players and emptier wallets of the customers, so according to experts, some chains could leave the market. Czech retail market is one of the most competitive ones in Europe; there are too many stores for such a small country.

While in 2007 the number of supermarkets, hypermarkets and discount stores increased by 27 (between years), in 2008 there were 108 new stores and last year their total number reached 1528.

Concerning primarily food stores, the Tesco has the biggest plans; it plans to open approximately 30 shops. It wants to continue building hypermarkets and smaller stores such as supermarkets and Express shops. The

Tesco now operates 135 hypermarkets, supermarkets, department stores and Express stores in the Czech Republic. Building eight new supermarkets this year is in the plans of the Billa, which operated 195 stores in the Czech Republic at the end of 2009. The crisis does not affect the plans of the Žabka either, it has been building a network of self-service markets in the Czech Republic for three years.

The financial crisis and slowing economy could therefore make a significant effect on the sales of businesses first this year. If the crisis notably influences the incomes of the inhabitants, the unemployment and the overall economic environment, the shopping behaviour of Czech people can change dramatically. Shopping customs and preferences in connection with the economic recession will suffer a change, but not at a large scale. Some customers will still require quality, but for others, the main criterion while selecting goods will be the price. People can for example buy more private brands in the chain stores that are cheaper than the classic brand goods. It can happen that people will turn more to the discount chains. Maybe not even because they have that cheaper goods, but because they have relatively small shopping carts, which give the idea as though the households did not consume so much. It will be a chance for the retail and a threat to some suppliers. Also the willingness of customers to commute for shopping to towns may decrease with the growing unemployment. Exactly this change in the consumer behaviour will play in the hands of the cooperative members to strengthen their sales.

Strategy of strengthening the role of local suppliers

Pastry of a high quality coming from both small and large local bakers – that is the direction of extending the offer of pastry products in the Tesco stores in the whole Czech Republic. This way, customers will be able to choose their favourite kinds of pastry and specialities from the local bakers and confectioners to which they are used in each region. In more than 90% of the Tesco stores, about 550 kinds of products from almost 40 small bakeries are already being offered now. The Tesco has also started negotiations with the representatives of the Beas company and the Bakery Merkur, whose bread products were acknowledged as the best in the categories craft and industrial production in the framework of the “Best bread of the year 2010” competition, organized every year by the Czech Bakers’ and Confectioners’ Association. The Tesco currently cooperates with approximately

one fourth of all the bakeries that participated in the competition. It has started negotiations about the cooperation with five additional bakers, so that their traditional pastry and bread can be offered to customers in the individual regions. By the end of the year, pastry products from the local suppliers should be available in all Tesco stores; that is also why the Tesco created a special position of a purchasing agent of these goods, who will be responsible mainly for the domestic bakeries of the family character (Tesco... 2010).

The long-term strategy of supporting local suppliers is by far not only about pastry products, the customers can also find an offer of the Bohemian and Moravian wine-growers, butchers and pork-butchers, such as the Vinselct Michlovský, the Vodňany poultry or the frankfurters Le&Co. In doing so, the company stems from the surveys the results of which show that for more than 40% of customers, it is important whether they can buy a Czech product. This strategy also helps to lower the regional unemployment by supporting local producers. This direction of the development of the countryside means, beside others, also the alternative possibilities of employment for the unemployed from agriculture. A prerequisite is the increased demand for services, the increased environmental care, the introduction of production of local and regional products, products from traditional crafts, eco-tourism, agro-tourism, and generally for rural tourism (Hrabánková and Boháčková 2009).

Origin of the collusive oligopolies (cartel agreements) in the food market

A considerable attention of the media and both expert and laic public is at present given to raising the prices of food and agricultural products, because this problem touches every citizen. For this reason, the ÚOHS focused its activity in the last few years on the behaviour of farmers, food producers, their chambers and also of the chain stores themselves.

In the case of demand, the basic foods are considered as non-elastic goods that are necessary in the terms of consumption. Therefore, in the monitored time-period, the cartel bargains of the companies happen more often than with other goods. Agreements are often made among oligopolistic companies with a significant share in the market; these agreements on cooperation and common action then give rise to a market structure called cartel. The purpose of cartel is the effort to maximize the overall profit of the given sector. Agreements can significantly harm the interests of consumers, but the specific food sector

is so broken that the mentioned cartel behaviour – if intercepted by the Office in time – cannot dramatically influence market competition.

A cartel of the chain stores BILLA and JULIUS MEINL may be an example of a cartel agreement (of duopoly companies). The companies BILLA and Omega Retail (earlier JULIUS MEINL), which together coordinated and adjusted their purchase prices of goods and trading conditions towards their suppliers in the years 2001 and 2002, were under the obligation to pay 23.80 mil. CZK and 19.55 mil. CZK, respectively. These companies committed a price cartel when they were exchanging information about their purchase prices and bonus and discount systems. They compared this information and from their suppliers, they demanded levelling of their up-to-date financial conditions for the purchase of goods to the level of the other participant of the conduct (if he had them more convenient), moreover, they also demanded financial compensations to balance the incurred differences. The requirement of both companies for an additional payment, the so-called alliance bonus, was illegal as well; it was basically only justified by the possibility to supply the same product line to both trade networks. In the case of disagreement with the set conditions, the suppliers were exposed to the threat of the participants of the conduct pulling out of a contract. In the opinion of the ÚOHS, the fines are not liquidating, but at the same time, they can be considered perceivable enough, and therefore capable of discouraging participants of a conduct from breaking the competition law in the future (Zemědělství... 2008).

By implementing agreements among each other, the cartel participants are able to exclude the risk of competition in the market when the individual competitor does not have the information about the intended behaviour of his/her rival. Simply, we can say that the risk expresses a situation when the subject decides on the base of information about the probability distribution of the possible outcomes, which are available (Šrédl 2010). Nevertheless, it is completely natural for competition in the market that the competitors are forced to accept even inconvenient offers, if they want to further act in the market. Even the continuing inexpedience of taking part in the economic competition in the market does not rehabilitate an anti-competitive behaviour of subjects that are in the position of mutual competitors. Such behaviour cannot even be rehabilitated by the circumstances that influence the agro-production (for example the Avian flu, increasing the prices of energy) and with that the connected production costs, or by the behaviour of other participants of

competition in the market. Such common action of mutual competitors must be evaluated as anti-competitive, because each participant of competition in the market is supposed to act on his/her own and to carry the risks arising from it. Risk can be viewed as a difference between the real future state and the expected future state. This difference arises due to the change of risk factors, which translated the utility of subjects (Šrédl 2010).

Also the practices of some competitors who exchanged information on the future raising prices of their products through the media can be indicated as improper in the terms of the economic competition development. Representatives of the biggest bakeries, producers of milk and meat products in the Czech Republic and some others were doing so. The mutual exchange of information about the intended changes in trading conditions – especially about the adjustments of price – is typical for the behaviour that breaks the ban to make cartel agreements about prices, eventually the ban to act in a common agreement in the area of price making. In such cases, the harmonization of trade practices is arranged and the fulfilment of common strategy is checked by the means of the press. Such behaviour constitutes violation of the competition law and can be sanctioned with high fines, as it is illustrated by the given examples of cartel bargains.

Final analysis evaluation

With the view of the overall sales of all ten most significant chain stores (if we take into account six companies that are engaged in the retail activity), we can say that none of the mentioned companies meets the criterion of a dominant place in the market. The criterion for dominance of a company in the market – according to the law on the protection of economic competition in the Czech Republic – is a 40% share of a company in the market of the relevant production.

Moreover, the trade with food products in most of the described chain stores composes (according to information provided by them) approximately 80% share of the overall sales. That, together with the participation of smaller grocery chains (for example the Norma, Žabka) and small producers (for example farmers) lowers the shares of the six mentioned companies in the food market and the possibility of the rise of a dominant company in the relevant market (Figure 3).

As it is clear from the shares of the individual companies in the food products market, there is no chain store that would meet the criterion of dominance in the market. The Schwarz group (Kaufland, Lidl)

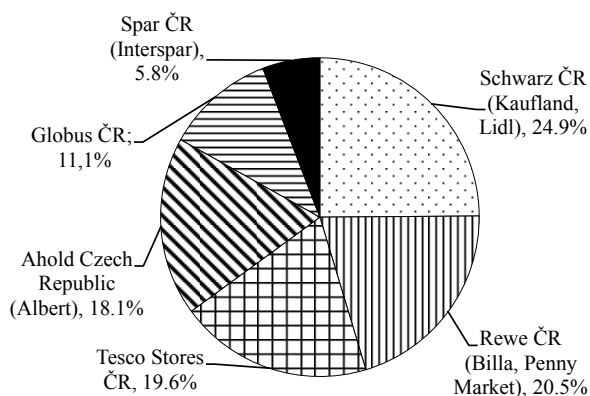


Figure 3. Market shares of retail chains from the TOP 10 largest businesses in the Czech Republic

remains a long-term number one in the Czech food market, but its market share expressed by the means of sales index composes only one fourth of the entire turn-over in this product group. Therefore, there is a strong competition in the food products market that pushes the prices of products down; it has already forced many from the chain stores to leave the Czech market (the Julius Meinl, the Delvita, the Carrefour, and others). Several significant fusions of trade companies have occurred as well.

However, the fact that no dominance of a certain company in the market in the given sector exists, does not exclude the possibility of cartel agreements of several companies about purchase prices of products or duopolistic reactions of competitors arising.

CONCLUSION

The Law on the Significant Market Power and its Misuse was adopted in 2009 for the protection of market from the oligopolistic behaviour of food companies. Practices considered as a misuse of the market power are individually listed in this legal act. Businesses that do not pay their goods supplier by 30 days since the delivery, sell the goods cheaper than they bought it, require paying a fee in order to actually get the goods on the racks, or that misuse their market power in any other way, will be under the threat of up to 10 million CZK or a sanction in the amount of 10% of turn-over.

Doing so, the law punishes bad practices of the chain stores, especially in the face of small suppliers. The inspection of the chains will involve exclusively the sale of food and agricultural products. The eventual penalties should be assigned by the Office for the Protection of Competition. The law is a suitable regulatory intervention into the relationships between the suppliers and purchasers in the retail market.

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