

Determinants of Cartel Formation and Survival in Bulgaria during the late years of economic transition (2001-2010): the case of the food sector

Name of Student: Vyara Ruseva; *Programme:* BA (Hons) Business Economics; *Year of Study:* 3;

Mentored by: Dr. Helen Mercer

Abstract

A strong upward trend in cartel investigations and discoveries in Bulgaria between 2001 and 2005, raises questions regarding the factors that have pushed firms towards collusion and helped them to sustain it. This research compares the determinants of cartel formation in Bulgaria, (obtained through the analysis of information from the available 84 decision reports provided by the Bulgarian Commission for the Protection of Competition) with empirical evidence provided by Levenstein and Syslow (2006) derived from their analysis of other cartel samples. This study finds that 40% of Bulgarian cartels in this sample were in the food sector. Most of the examined agreements are classified as successful and shared similar determinants for formation to the ones identified in the literature. Yet, the paper finds that behavioural factors, such as social and cultural cohesion, as well as the involvement of trade associations have been the most important for cartels' success. Moreover, it concludes that EU membership as well as the growing importance of non-domestically owned companies in the food sector, have pushed firms towards forming defensive collusive agreements.

Key words: Bulgaria; cartels; food sector; foreign competition;

Introduction

Mainstream economics views competitive markets as a necessary prerequisite for optimal efficiency, economic development and growth. Market failure, however, in the form of monopoly and anti-competitive practices is an ever-present danger (Godfrey, 2008). The most common form of anticompetitive practice is the cartel, defined as "an agreement and/or concerted practice between two or more undertakings, competitors on the relevant market, aimed at restricting competition through price fixing or fixing pricing conditions for purchase or sale, allocation of production quotas or sales or allocation of markets, including in rigging of public bids or tenders or public procurement award procedures" (International Competition Network, 2009:3). The aim of collusive agreements is eventually to restrict output and increase price, ideally to a level that a monopolist would set, and achieve jointly maximized profits. However, in order to be successful, cartels need to achieve a high level of consensus, coordination and compliance among the members, and be able to detect cheating as well as to ensure the proper enforcement of the agreement. In order to overcome problems like coordination, deviation from the agreement or entry, companies employ a variety of monitoring tools, reward schemes and punishments (Levenstein and Suslow, 2006). Thus the driving forces behind their survival or breakdown are a matter of intense debate.

This article summarises that debate and identifies the value of its insights in understanding the process of cartel formation and survival in an emerging market economy – Bulgaria. Bulgaria is a country that not long ago made the transition from a planned to a market economy. The process of privatisation has been long and inefficient due to high levels of corruption and other political factors, and it was only in 2001 that the presence of private businesses became a dominant feature of the economy (Hoekman and Djankov, 1997; Damyanova et al., 2003). The improving economic environment since then has been described as "sluggish and quite painful", in which unregulated economic interests have hindered the progress of reforms (Minassian, 2002:1). The country experienced a period of stable GDP growth between 2001 and 2008, followed by a sharp contraction in mid-2008 (by nearly 10%), associated with the global crisis (IMF, 2010).

Parallel with the development of a market economy has been the gradual development of restraints on anti-competitive behavior. In 1991 Bulgaria introduced the Law on Protection of Competition (LPC), which focused only on cases of abuse of dominant position, and this was extended in 1998 to allow investigation of cartels (Boyanov, 2011). At the same time a Commission for Protection of Competition (CPC) was established in the early 1990s and recently became more active in detecting cartel agreements. Between 2001 and 2010 the

Commission published reports regarding 84 of the cartel investigations, which were undertaken. Their enquiries have provided a rich seam of data and information on the determinants of cartel formation in Bulgaria, which can then be compared with Levenstein and Suslow's empirical evidence. As to date no public research on the broad characteristics of Bulgarian cartels is available, this article is both a contribution to the academic understanding of cartel behaviours, and may also prove useful for their future investigation in Bulgaria.

Literature Review

In order to characterize the nature of Bulgarian cartels as they have emerged since the 1990s, it is useful to review the factors the academic literature sees as significant in the formation and longevity of cartels. The key factors which authors have isolated then provide the framework for the analysis of Bulgarian cartels. Some studies suggest that high levels of market concentration, defined as the degree to which small number of companies control a large part of the market, facilitates cartel formation, while others argue that in fact many cartels appear to be in industries regarded as having low levels of concentration (Levenstein and Suslow, 2006; Posner, 1970). Symeonidis (2003) hypothesizes that high concentration is associated with firm asymmetries or the presence of dominant firms, because an industry characterized by an absence of dominant firms is assumed to experience difficulty in colluding. On the other hand, research also indicates that trade associations can act as if the industries were highly concentrated, and so allow cartels to overcome the difficulties imposed by the market characteristics of the industry (Escrhuella-Villar and Guillen, 2011). This situation, however, is only sustainable, where a critical mass of firms are cartel members, and where the association has powerful means of disciplining member firms. Reviewing the evidence Symeonidis (2003) identifies a link between capital-intensive industries and high concentration, and suggests that, in fact, it could be the capital intensity factor that facilitates collusion rather than the industry concentration. As important for cartel formation could be the customer concentration. While some authors like Stigler (1964) argue that the presence of large customers, i.e. oligopsony, increases the incentive for a cartel members to cheat, reducing the cartle's stability: on the other hand empirical evidence derived studies of modern international cartels shows that successful collusion is also possible in the presence of large customers (Levenstein and Suslow, 2006).

Some industries and products appear especially prone to cartel formation: agriculture, stone, glass-making, chemical and agricultural food production, printing and publishing (Symeonidis, 2003). This indicates that collusive agreements are likely to form in oligopolistic markets with standardized and homogeneous products, like essential foods with relatively inelastic demand, allowing the management of the cartel to be more decentralized and easier to maintain (Severova, *et. al.* 2011; Baker and Faulkner, 1993). One study, focusing on the food manufacturing sector, sees the key influences on cartel formation being the desire to eliminate price cutting in the presence of excess capacity, to fight against overseas competition, to counter monopolist or another association, associated with the formation of collusive agreements (Cuthbert and Black, 1961).

The existing literature identifies trade associations as the most often used mechanism for information sharing and decision-making, which allows firms to monitor each other's behaviour and to limit the members' incentives to cheat by imposing penalties (Griffin, 2000; Levenstein and Suslow, 2006). Social and cultural cohesion like common bonds and shared culture are found to be beneficial in sustaining the cartel organization (Hugo Van Driel, 2000). Also, learning from prior cartel failures is identified as a determinant of successful cartels since empirical evidence shows that every next cartel formation in the same sector tends to be longer lasting and more successful than the previous one (Marquez, J. 1994). The importance of economic growth for successful collusion is widely discussed in the literature, with some authors arguing that there is no clear and uniform relationship between market growth and the likelihood of collusion (Symeonidis 2003; Levenstein and Suslow 2010), and others arguing that cartels are more likely to form in markets with moderate growth rather than in rapidly declining or growing markets (Suslow, 2005; Dick, 1996).

Turning next to the causes for cartel breakdown, the literature indicates two main causes: "natural death", due to financial instability, defection, conflicts or entry; and "death by antitrust", which is considered to have the greatest impact on cartels. Realising the great importance of antitrust authorities in the prosecution of cartels, researchers have tried to examine their real impact on competition. Investigation of the activities of the Bulgarian competition office for the period 1991-1995 shows that the Commission's cartel prosecution efforts have not been very effective due to its focus on "unfair" competition cases rather than on hard-core cartels (Hoekman and Djankov, 1997; Boyanov, 2011). Besides, all imposed fines have been relatively low, which may have lessened their deterrent effect. But a stricter law may not make the market structure more competitive, for in a market where one or more partial cartels operate, any increase in the maximum amount of fine risks pushing firms into

coarser coalitions, especially in low concentrated industries, and during high demand periods (Bartolini and Zazzaro, 2009).

In conclusion, the above-presented studies identify the most common determinants for cartel formation and success, and hence could be used as a model framework for the analysis of the determinants for cartel formation in Bulgaria.

Research Methodology

This article uses the factors outlined in Levenstein and Suslow’s (2006) article “What Determines Cartel Success” to begin the analysis of Bulgarian cartels. The research proceeded by analysing all 84 cases investigated by the Commission between 1999 and 2010 and codes them for cartel duration, number of participants, involvement of trade association, type of restrictive practice, elasticity of demand, product characteristics, raw materials suppliers’ and buyers’ concentrations. This initial sift indicated that the food sector cartels dominated the sample - a characteristic Bulgaria holds in common with the European experience, (European Competition Network, 2012). These food cartels were analysed more extensively using reports from the CPC, the Bulgarian National Bank (BNB), EBRD and FAO.

Findings

The following information regarding cartel investigations in Bulgaria was derived from the Commission for Protection of Competition’s database.

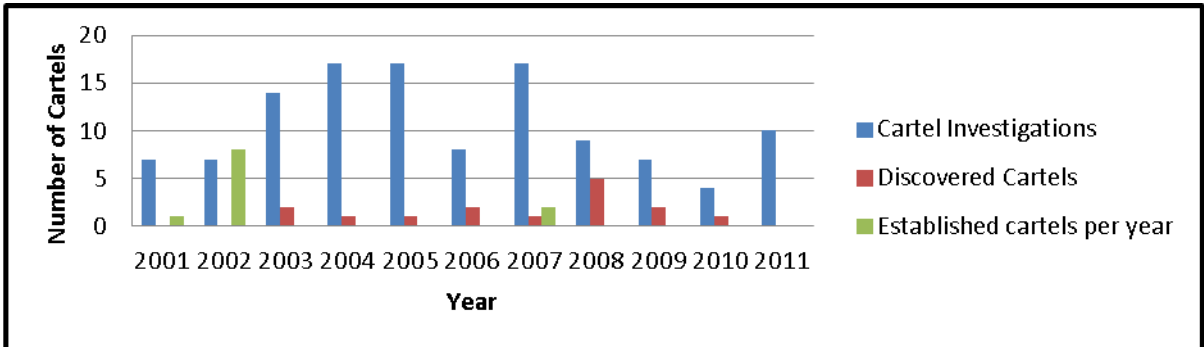


Fig.1 Number of Investigated, Detected and Established cartels (2001-2011)

Source: CPC and own calculations

Table 1 Cartels in Bulgaria (2001-2010)

Cartel	Duration (years)	Fine (BGN)	Number of Participants	Trade association	Initiator of the investigation
Liability Car Insurance	1	330,000.00	8	yes	CPC
Bread making	2	169,000.00	22	yes	CPC
Urban Infrastructure and Municipal Gasification	unavailable	80,000.00	2	no	unavailable
Tourist Port Operation	unavailable	20,000.00	2	no	unavailable
Imported Alcohol Distribution	4	600,000.00	3	no	competitor
Sunflower Oil production	6	1,865,000.00	13	yes	CPC
Green Card Insurance	1	2,450,000.00	14	yes	CPC
Milk processors (cheese production)	6	25,000.00	190	yes	CPC
Bread making	6	35,000.00	unavailable	yes	CPC
Poultry meat (processing stage)	6	67,500.00	21	yes	CPC
Eggs (processing stage)	6	225,500.00	7	yes	CPC
Spa and Wellness centers	7	350,000.00	3	yes	competitor

Source: CPC's decision reports archive

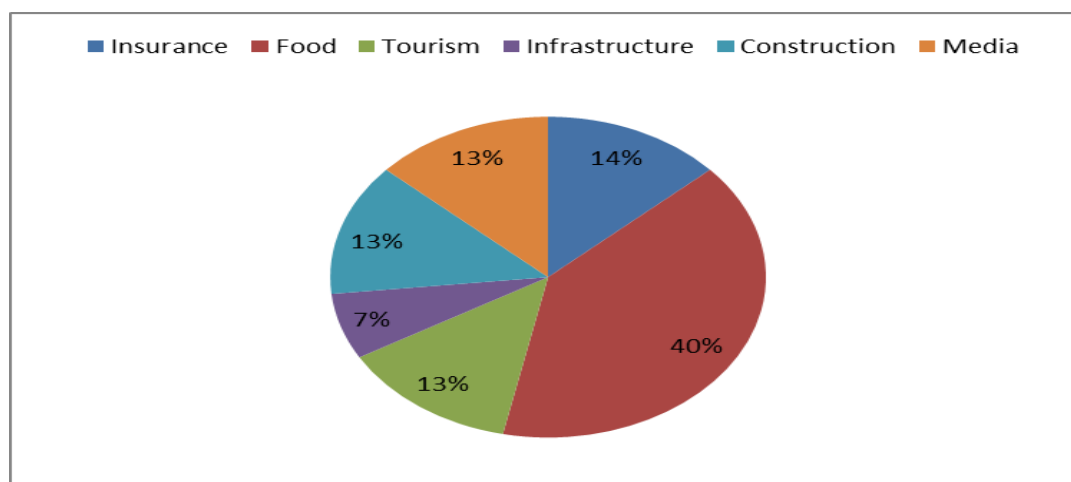


Fig. 2 Discovered cartel agreements by Industry Sector (Bulgaria, 2001-2010)

Source: CPC Decision Reports and own calculations

An interesting trend emerging from the sample is the fact that 40% of the Bulgarian cartels, discovered between 2001 and 2011, were in the food sector. All cartels, except one, were formed in 2002 (Table 1). The majority lasted between 5 and 6 years (Table 3), which classifies them as successful cartels. Worth noting is also the reluctance of firms to use whistle blowing even though the CPC introduced a leniency clause in 2003 (Table 1).

Table 2 Food Sector Cartels

Cartel	Bread Makers (2001)	Bread Makers (2004)	Sunflower Oil Producers	Dairy Processors	Eggs	Poultry Breeders
Duration (years)	2	6	5	6	6	6
Market share of cartel (%)	89.3	65	65	68	100	100
Raw materials' supplier concentration CR4 (%)	Low	Low	Low	Low	Low	Low
Consumer Concentration	Low	Low	Low	Low	Low/hypermarkets with 30% share	Low/hypermarkets with 30%
Demand	High/Inelastic	High/Inelastic	Low Elasticity	Low Elasticity	Low Elasticity	Elastic
Type of Restrictive Practice [*]	1,6	1,6	1,2,4,5	1,2,3	1,4	1,4
Number of participating firms	22		13	190	21	7

Source: CPC Decision Reports

* 1- Minimum Retail Price fixing; 2- Purchase price for raw materials fixing; 3- Minimum Export Price fixing; 4- Allocation of quotas; 5- Restricting the export of raw materials; 6- Discounts fixing

All of the observed food sector cartels were “*hard core cartels*”, which aimed at fixing a minimum price for their products, sales quotas, etc. (Table 3).

As mentioned earlier, the type of correlation that exists between the number of firms in a cartel and its duration is still debatable. In this sample, the correlation coefficient between these two variables is 0,280667, suggesting a weak positive correlation. The joint market share of each of the examined cartels is over 65%, with two of the cartels actually possessing 100% of the market. Furthermore, the correlation coefficient between the number of cartel firms and the market share of the cartel, is -0,53405, meaning that there is a reasonably strong negative correlation between the two variables, and thus, suggesting that the fewer the cartel members, the more powerful and stable they are. Yet, one should bare in mind the fact that the available data set used for the calculation of the above presented correlation coefficients is very limited and hence the conclusions resulting from it may not be entirely reliable.

Industry concentration is often linked to cartel formation. In the present sample the market concentration varies sufficiently from one case to another. Cartels in relatively low concentrated markets were bread making and dairy processing (CR4 – 34%), cartels in medium and highly concentrated markets were sunflower oil (CR4 – 52%) production, and poultry (CR4 – 96%) and eggs breeders (CR4 - 69%), (CPC, Bulgarian Chamber of Commerce, 2011; Ministry of Economy, Energy and Tourism, 2010). As a result, it is impossible to conclude whether the industry concentration is an essential prerequisite for

successful cartels. Yet, all cartels that operated in low concentrated markets, are likely to owe their success to trade associations, which are well known for their ability to facilitate collusion.

Customer characteristics are as important for and can have huge impact on the functioning of cartels. All of the examined cartels are companies in the processing stage of the production chain, and their customers represent both small convenience stores and big supermarkets. The grocery sector in Bulgaria is still quite fragmented, with the top five grocery retailers only accounting for 20% of the total sales in the country in 2007 (Oxford Business Group, 2008). Yet they have a significant bargaining power, especially in the eggs and chicken product markets, where supermarkets have 30% market share (CPC, 2008). All that may have had a destabilising effect over the cartel, and thus contributed to its breakdown in 2008. In addition, several of the biggest retailers in the country are being investigated by the CPC due to suspicion of a cartel agreement (CPC, 2004, No. 253).

Meanwhile, raw material suppliers' characteristics suggest a very low concentration (CPC; USDA Foreign Agricultural Service, 2011). In sunflower seeds, raw milk and wheat, the food sector cartels took full advantage of the fragmentation among the suppliers of raw materials. Based on the above analysis, and in accordance with the evidence by Stigler (1964) and Levenstein and Suslow (2006), both customers' and raw materials producers' low concentrations seem beneficial for the stability of cartels. As mentioned by Symeonidis (2003), the food and agriculture sector is a typical place for collusion to occur, a fact largely explained by the characteristics of the goods sold by cartelists in those markets. The products involved in the current sample of cartels are bread, sunflower oil, dairy products (specifically white and yellow cheese), poultry and eggs. All of them are perishable products, for which there is a great, inelastic consumer demand. The culture and eating habits of households determine them as traditional products, used on a daily basis, and which can hardly be substituted. Such product qualities enhance cartelists' ability to increase prices, gaining higher profits and yet, leaving demand unaffected. Besides, private cartel costs associated mainly with monitoring costs are found to be lower for standardized products, which is another reason why cartels tend to form in markets with that sort of products (Dick, 1995).

Successful cartels develop very good information sharing and decision making mechanisms. Table 4 presents data regarding the different mechanisms of cooperation employed by cartels in the Bulgarian food sector.

Table 4 Mechanisms of cooperation used by Bulgarian food cartels

Mechanism of cooperation	Cartel Number*
Trade association/union	1,2,3,4,5,6
Powerful players	5,6
Use of media and publications in professional newspapers	1,2,3,5,6
Support from local authorities	1,2
Regular meetings	3,5,6
Collection of sensitive information	1,2,3,4,5,6
Provision of sample contracts and regular checks of their implementation	1,2,4
Regular collection of samples from shops in order to ascertain the quality of the product corresponds to its price (as agreed by cartel)	4
Bonuses and penalties schemes	1,2,4
Powerful and respected union	3
Establishment of a commission for pricing strategies and monitoring	5,6
Sending newsletters with recent updates to all members	5,6

Source: *CPC Decision Reports and own analysis*

* 1- Bread makers cartel ('03); 2- Bread makers cartel ('08); 3- Sunflower oil producers cartel; 4- Dairy processors cartel; 5- Eggs cartel; 6- Chicken breeders cartel;

The success of all of the examined food sector cartels is largely explained by the involvement of some sort of a trade association, or union. One of the most important associations' qualities is its ability to collect market sensitive information (i.e. regarding current stocks and production capacities) and then use it for monitoring purposes, as well as to enforce the articles of the anticompetitive agreement. Members who broke the agreement were sanctioned to pay a penalty, which was then used by the association to compensate any disadvantaged firms. Moreover, trade associations in the sample were recognized as bodies with authority and high reputation. Small firms assumed that the union and the leading firms had better knowledge of the market conditions and were able to determine the most accurate price for their products, which turned them into price takers. Moreover, trade associations achieved the crucial and most challenging objective of creating a trust among members that has fundamentally contributed to cartels' success. The use of media and specialized professional newspapers has been used successfully by Bulgarian cartels to increase demand.

The role of the state is as important. Some of the cartels in this sample turned to the state to limit exports of their input materials (sunflower oil producers); to increase subsidies for farmers (dairy products cartel); to introduce a standardised price with bonus system

according to quality received (dairy processors), while others received an explicit support from local authorities (CPC, 2008, No. 650; 622; 1150).

Furthermore, regular meetings helped collusion through constant discussions and updates of the cartels' objectives and strategies. Evidence for the effectiveness of those meeting could be seen in Figures 3 and 4 below, showing how prices increased after each association meeting.

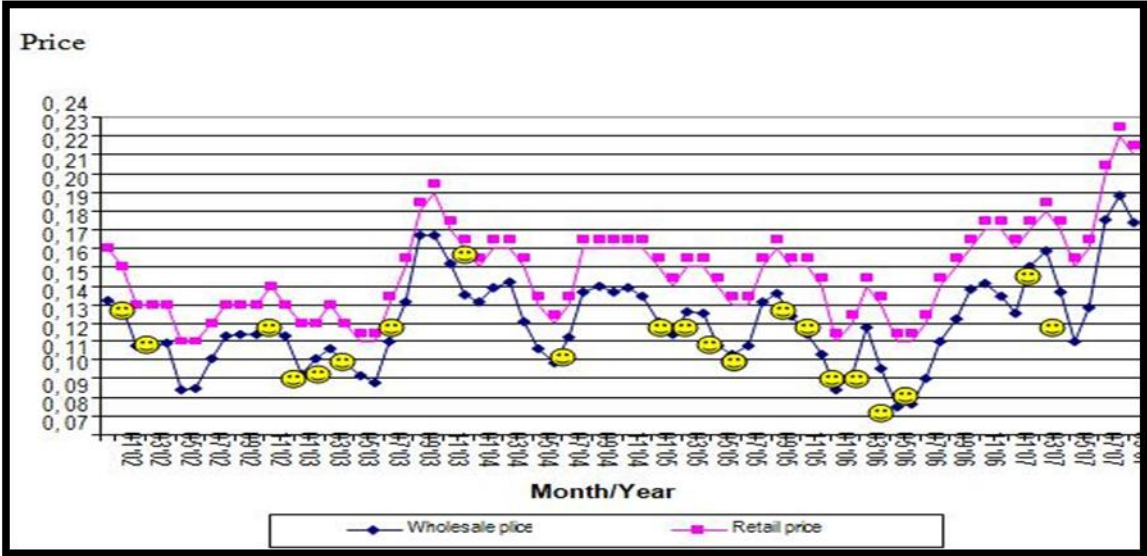


Fig. 3 Average wholesale and retail price of eggs, monthly (2002-2007)

Source: System for Agricultural Market Information (SAPI)

*Smiley face indicates a union meeting

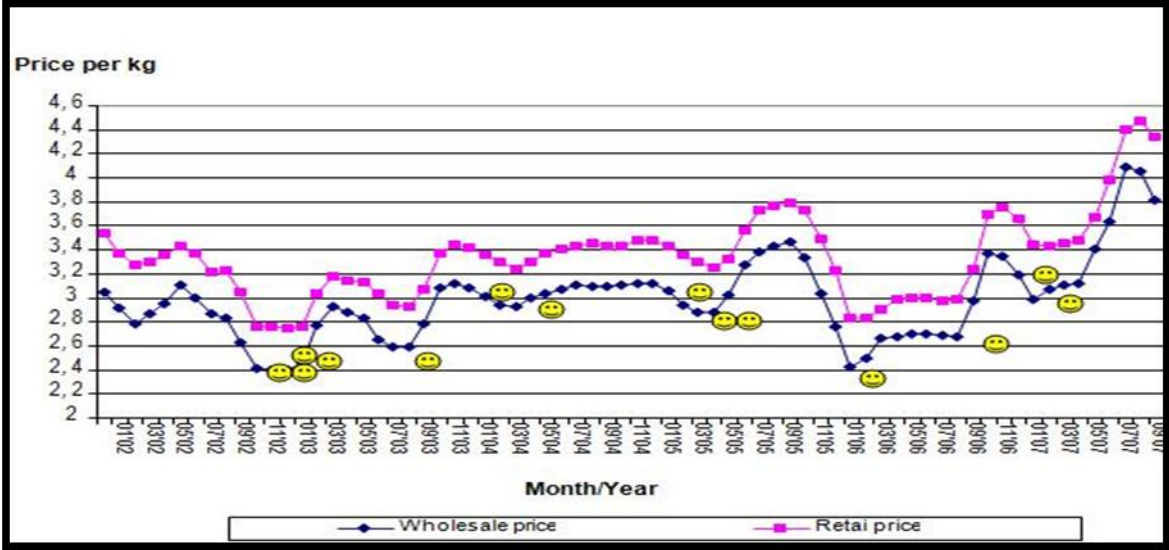


Fig. 4 Average wholesale and retail price of poultry meat, monthly (2002-2007)

Source: System for Agricultural Market Information (SAPI)

*Smiley face indicates a union meeting

The importance of non-economic organizational factors, like social and cultural cohesion, for the stability of collusive agreements, should also be examined. High levels of risk and uncertainty may be crucial for cartel formation, but the presence of social relations

between executives together with mutual trust determine whether sustained collusion is actually realised (Driel, 2000: 402). Similarities in social background and geographical proximity, which apply to Bulgarian cartels, have played a vital role for their stability.

Finally, two macroeconomic factors may have determined firms' decision to collude. First, these cartels were formed and sustained during a period of steady growth (2002-2007), (NSI). However, they were also the likely response to the growth in foreign direct investment (FDI) in the food processing industry (Damyanova, 2003), illustrated in Figure 7.

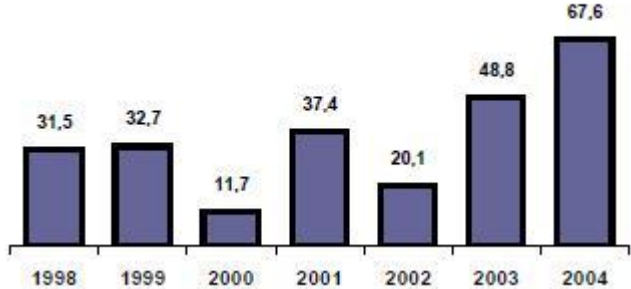


Fig. 7 FDI in food processing (1998-2004) USD m
Source: InvestBulgaria Agency, Bulgarian National Bank

FDI posed a threat to domestic companies, providing them with a strong motive to collude. Likewise, Bulgaria's accession to the EU had a significant impact on the country's small and medium sized enterprises (SMEs), (Andreev, 2009; Yorgova, 2011). EU standards and regulations related to the food industry, planned to come into force from 2007, as well as the expected competition from the EU market, were identified as factors which were going to dramatically change the scene in which rural SMEs operated (EBRD and FAO, 2003). Investment needs were expected to increase severely, which resulted in higher levels of indebtedness and established a stronger requirement for firms to achieve constant levels of profits, pressuring them and pushing them towards collusion.

Conclusion

This research found that Bulgarian cartels exhibited a trend similar to the European experience, where 40% of the collusive agreements in the country between 2001 and 2010 represented domestic food-processing cartels aiming to fix prices and allocate production quotas. The majority of cartels lasted for more than 5 years, defining them as successful, and implying that they have managed to employ successful mechanisms and strategies in order to

sustain their agreements. Overall, Bulgarian cartels appear to have very similar determinants for cartel formation to the ones identified by Levenstein and Suslow (2006). The sample observations suggest that the fewer the market shares of fringe firms, the more stable the cartel is. Furthermore, the low concentration of raw materials producers was found beneficial for cartels' stability, while buyers' concentration and the presence of big supermarket chains were identified as possible causes for cartel breakdown. It isn't surprising that cartels' products were homogeneous goods with stable and relatively inelastic demand, which significantly contributed to the reduction of collusion difficulties. Behavioural factors like social and cultural cohesion prove vital for the successful cartel operation in the Bulgarian food sector. Moreover, trade associations are found to be the most important determinant for cartels' success due to their ability to cover the illegal cartel meetings and employ strict cooperation and compliance control mechanisms, as well as a variety of penalties and side payments instruments. Additionally, cartels managed to create trust among members, which allowed them to successfully overcome the challenging cheating temptation, outlined in game theory.

While this research did not find a clear link between growth and cartel formation, and stability, it identified some positive correlation between FDI to companies with foreign stake and cartel formation. Above all, the EU membership was found to have resulted in new and more demanding industry regulations and sector requirements, which have in turn led to substantial increase in firms' costs of investments and levels of indebtedness. Hence, firms were more likely to form a cartel in order to deal with the anticipated higher level of market competition associated with the country's accession to the EU.

In conclusion, the findings of this research suggest that food sector firms had to deal with high levels of risk and uncertainty due to financial and other business development difficulties, typical the period 2001-2010, which pushed them towards collusion. The analysis suggests that the promotion of leniency, the closer monitoring of trade associations' activities and the prospect of cooperation between the individual NCAs may result in stronger understanding and better detection rates of cartels.

References

- Andreev, S. 2009. The unbearable lightness of membership: Bulgaria and Romania after the 2007 EU accession. *Communist and Post-Communist Studies*, 42: 375-393.
- Bartolini, D. & Zazzaro, A. 2009. *Are antitrust fines friendly to competition? An endogenous coalition formation approach to collusive cartels*. Mo.Fi.R. Working Papers 18, Money and Finance Research group (Mo.Fi.R.) – University Politecnica Marche – Department of Economic and Social Science.
http://utenti.dea.univpm.it/bartolini/Research_files/BZ_antitrust.pdf
- Boyanov, B. 2011. *Detecting and proving price fixing agreements in Bulgarian context*. Master Thesis, Aarhus University. Department of Law.
[http://pure.au.dk/portal/en/studentprojects/detecting-and-proving-price-fixing-agreements-in-a-bulgarian-context\(2ebb592d-f8ed-456c-9e0b-517ea5eebc71\).html](http://pure.au.dk/portal/en/studentprojects/detecting-and-proving-price-fixing-agreements-in-a-bulgarian-context(2ebb592d-f8ed-456c-9e0b-517ea5eebc71).html)
- Bulgarian Chamber of Commerce. 2011. *Sector Analysis of the competence of the workforce in the sector "Manufacture of dairy products"*.
<http://www.milkbg.org/Документи/1/MIWgRWTIRS3I9KPUdKbYJW3glOjMpeXItOLMJOjUhO-gBKnQtOf>
- Cuthbert, N. and Black, W. 1961. Restrictive Practices in the Food Trades. II. *The Journal of Industrial Economics*, 10(1): 51-77.
- Damyanova, A. et. al. 2003. *The Bulgarian economy in the fourth quarter of 2003*. Report by The Centre For Economic Development.
http://www.ced.bg/uploads/publication/All_Q4_2003_Final_EN.pdf
- Dick, A. 1995. *Where Do Cartels Form? Antitrust Screens and the Cost of Cartel Transaction*. Economics Department, University of California, Los Angelis
<http://www.econ.ucla.edu/workingpapers/wp729.pdf>
- EBRD and FAO. 2004. *Bulgaria: Bank Lending to Small and Medium Sized Enterprises in Rural Areas; an Analysis of Supply and Demand*.
http://www.fao.org/fileadmin/user_upload/tci/docs/RS8Bulgaria_Bank%20Lending%20to%20SMEs%20in%20Rural%20Areas.pdf
- European Competition Network, Subgroup Food. 2012. *Report on competition law enforcement and market monitoring activities by European competition authorities in the food sector*. http://ec.europa.eu/competition/ecn/food_report_en.pdf
- Escrhuella-Villar, M. & Guillen, J. 2011. On Collusion and Industry Size. *Annals of Economics and Finance*, 12(1): 31-40.
- Godfrey, N. 2008. *Why is competition important for growth and poverty reduction?* OECD Global Forum on International Investment. 7 (Session 1.3.: Competition policy): 3.
<http://www.oecd.org/investment/globalforum/40315399.pdf>

- Griffin, J. 2000. *An Inside Look At A Cartel At Work: Common Characteristics Of International Cartels*. Antitrust Division, US Department of Justice.
<http://www.justice.gov/atr/public/speeches/4489.htm>
- Hoekman, B. and Djankov, S. 1997. *Competition Law in Post-Central Planning Bulgaria*. CEPR Discussion papers 1723. <http://ideas.repec.org/p/cpr/ceprdp/1723.html>
- IMF. 2001. *Country Report No. 01/53. Bulgaria: 2000 Article IV Consultation and Fifth Review Under the Extended Arrangements*. IMF.
<http://www.imf.org/external/pubs/ft/scr/2001/cr0153.pdf>
- IMF. 2010. *Bulgaria: 2010 Article IV Consultation*.
<http://www.imf.org/external/pubs/ft/scr/2010/cr10160.pdf>
- International Competition Network. 2009. *Anti-cartel enforcement template*.
<http://www.cpc.bg/storage/file/Bulgaria~4.pdf>
- Invest Bulgaria Agency. (2006). *Bulgaria Factsheet: Food and Beverage Sector*.
www.investbg.government.bg
- Levenstein, M. C. & Suslow, V. Y. 2006. What Determines Cartel Success? *Journal of Economic Literature*, 44(1): 43-95.
- Levenstein, M. C. & Suslow, V. Y. 2010. Breaking Up Is Hard to Do: Determinants of Cartel Duration. *Journal of Law & Economic*, 54(2): 455-492.
- Marquez, J. 1994. Life Expectancy of International Cartels: An empirical Analysis. *Review of Industrial Organisation*, 9: 331-341.
- Minassian, G. 2002. The economic environment in Albania, Bulgaria, Macedonia FYR, and Greece - A cross-country study. *Eastern European Economics*, 40(4): 45-82.
- Ministry of Economy, Energy and Tourism. Direction "Political Economy". 2010. *Processing Industry 2010*.
http://www.mi.government.bg/files/useruploads/files/ip/promishlenost_2010_f.pdf
- National Statistics Institute (NSI) <http://www.nsi.bg/index.php>
- OECD. 1993. *Glossary of Industrial Organisation Economics and Competition Law*.
<http://www.oecd.org/regreform/sectors/2376087.pdf>
- Symeonidis, G. 2003. In which industries is collusion more likely? Evidence from the UK. *Journal of Industrial economics*, 51(1): 45-74.
- System for Agricultural Market Information (SAPI). <http://sapi.bg.com>
- USDA Foreign Agricultural Service. 2011. *Exporter Guide – Bulgaria*.
<http://gain.fas.usda.gov/Recent%20GAIN%20Publications/Exporter%20Guide%20-%20Bulgaria%20Sofia%20Bulgaria%207-18-2011.pdf>

Yorgova, N. 2011. Impacts of and experience with EU membership of the countries of Central, Eastern and South – Eastern Europe. Country study on Bulgaria. *Eastern Journal of European Studies*; 2(2): 169-180.

Decision reports by the Commission for Protection of Competition

1999, No. 25. <http://www.cpc.bg/Archive/ProhibitedAgreements.aspx>

2000, Nos. 69, 81 93, 128, 139,144. <http://www.cpc.bg/Archive/ProhibitedAgreements.aspx>

2001, Nos. 115,113, 86, 40, 33. <http://www.cpc.bg/Archive/ProhibitedAgreements.aspx>

2002, Nos. 20,115, 43, 83, 81, 92, 94, 153, 154, 159, 155.

<http://www.cpc.bg/Archive/ProhibitedAgreements.aspx>

2003, Nos. 190,152, 4, 9, 45, 158, 154, 219, 212, 119, 163.

<http://www.cpc.bg/Archive/ProhibitedAgreements.aspx>

2004, Nos. 31, 19, 99, 242, 253. <http://www.cpc.bg/Archive/ProhibitedAgreements.aspx>

2005, Nos. 136, 283, 176, 275, 263, 199, 198, 189, 185, 188, 132, 104, 93, 92, 68.

<http://www.cpc.bg/Archive/ProhibitedAgreements.aspx>

2006, Nos. 207, 163, 136, 174, 212, 141,100, 80, 136.

<http://www.cpc.bg/Archive/ProhibitedAgreements.aspx>

2007, Nos. 1150, 1064, 939, 307. <http://www.cpc.bg/Archive/ProhibitedAgreements.aspx>

2008, Nos. 1088, 597, 575, 651, 576, 432, 268, 170, 622, 576, 651, 650.

<http://www.cpc.bg/Archive/ProhibitedAgreements.aspx>