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## Price collusion detection tools in reforming the national economy

In this article, instruments to detect price collusion in order to reform the national economy are researched considering experiences of other countries. Conditions for creating persistent forms of cartels are considered as well as causes that complicate or facilitate prevention of cartelization. The set of existing instruments to detect and prevent the creation of price collusion cartels is analyzed. Suggestions for improving these instruments are made. There were proposed the ways of implementing economic and legal methods of combating cartels into the practice of the Antimonopoly Committee of Ukraine. The author considers such implementation as an important part of the reforms in the national economy.

**Keywords:** cartel, price collusion, economic and legal methods to combat cartel agreements, indicators of cartelization.

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### Інструментарій виявлення цінових змов у реформуванні національної економіки

В роботі досліджено інструментарій виявлення цінових змов у реформуванні національної економіки на тлі досвіду інших країн світу. Розглянуто умови при яких утворюються стійки форми картелів та чинники, що ускладнюють або, навпаки, посилюють можливості запобігання картелізації. Проаналізовано систему діючих інструментів виявлення та запобігання картелям у формі цінових змов. Сформульовано пропозиції щодо вдосконалення цих інструментів. Запропоновано шляхи імплементації економіко-правових методів протидії картельним змовам у практику Антимонопольного комітету України. Автор розглядає таку імплеметацію як елемент реформування національної економіки.

**Ключові слова**: картель, цінова змова, економіко-правові методи протидії картельним змовам, індикатори картелізації.

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# Инструментарий выявления ценовых сговоров в реформировании национальной экономики

В работе исследован инструментарий выявления ценовых сговоров в реформировании национальной экономики на фоне опыта других стран мира. Рассмотрены условия, при которых образуются стойкие формы картелей и факторы, затрудняющие или, наоборот, усиливающие возможности предотвращения картелизации. Проанализировано систему действенных инструментов выявления и предотвращения картелей в форме ценовых сговоров. Сформулированы предложения по совершенствованию этих инструментов. Предложены пути имплементации экономико-правовых методов противодействия картельным сговорам в практику Антимонопольного комитета Украины. Автор рассматривает такую имплементацию как элемент реформирования национальной экономики.

**Ключевые слова:** картель, ценовое соглашение, экономико-правовые методы противодействия картельным соглашениям, индикаторы картелизации.

### The general problem and its relationship with important scientific and practical tasks

The global antitrust practice has been in permanent search for more advanced tools to detect conspiracies and price fixing agreements in the market of goods and services. This improvement implies achieving optimal balance of legal and economic instruments.

The accumulated experience of antimonopoly regulation in leading countries, particularly embodied in "The United Nations Set of Principles and Rules on Competition" shows the use of harsh methods of competition protection in developing countries as inappropriate. However, consistency and timeliness are crucial in the implementation of the antimonopoly control of price collusion. It is the consistency and timeliness that the Ukrainian antitrust authorities lack. Therefore, improving the instruments to detect price collusion is an actual scientific and applied problem.

## Analysis of recent research and publications related to a solution of the problem

Most of the works related to the research of correct identification of cartel collusion, emphasize the importance to analyze coordinating abilities of market players. Attention is focused on obtaining direct evidence of collusion by legal methods. [4; 8]

However, the supposition that any interaction between economic entities is always a conspiracy [3] reduces the effectiveness of the antitrust authorities in the formation of evidence to prove the existence of a cartel.

It is not justified that in any oligopoly a hidden interaction between the key market players exists "automatically" since parts of the market are stable and the direct exchange of commercial information is exercised. [1; 8, p.42]. Such presumption results in legal mistakes, so it reduces the effectiveness of the antitrust policy as a whole.

In crisis conditions, coordination of economic conduct of firms does not always entail a distortion of competition although such coordination may have similarities to concerted anticompetitive actions. Due to the lack of effectiveness of legal methods for detecting cartel collusion, the correct identification of cartel is not always possible in the practice of Ukrainian authorities. This is proved by the number of appeals against decisions of the Antimonopoly Committee regarding the recognition of business entities activities as anticompetitive [5].

#### Defining the aspects of the problem not solved before

Research on cartelization of various markets in the national economy suggests that the primary task of the antimonopoly authorities is the implementation of economic instruments to identify and prove price collusion. However the main legal methods that are used in the practice of the Antimonopoly Committee of Ukraine do not provide sufficient measures to combat modern forms of cartelization in the national economy. They are ineffective in dealing with the hidden types of anticompetitive behavior of business entities.

#### The purpose of this article

The purpose of this study is to analyze existing instruments to detect and prevent price collusion in the practice of antimonopoly regulation and formulate proposals for their improvement.

#### The main material of the research

The system of methods to detect price collusion on the commodity market according to reports of the Antimonopoly Committee of Ukraine (AMCU) and statistics of termination of these violations appears productive. The most important is the fact that price collusion is observed on the markets of socially important goods, which should be given the most attention. The list of such markets is given in the Table 1.

Table 1

Year	Markets
2008	medicines, oil products, food
2009	medicines, fuel resources, bread and bakery products, flour, grains, sea port services, compulsory paid medical services, sugar, cement products
2010	medicines, fuel resources, bread and bakery products, food resources, financial services, transport services, telecommunications services

#### Markets of socially important goods in Ukraine in 2008-2014 where price collusion was found

2011	medicines, fuel resources, bread and bakery products, utility services, hotel services, funeral services, administrative services, concrete and bricks, car service stations
2012	medicines, fuel resources, bread and bakery products, utilities, hotel services, funeral services, services in urban development industry, milk for industrial processing, services in collection, transporting, recycling and disposal of waste
2013	medicines, utilities services, fuel resources, services accompanying administrative services
2014	medicines, fuel resources, bread and bakery products, utilities, funeral services, administrative services, concrete and bricks, car service stations

Source: The data from the State Statistics Service is summarized by the author.

The system of methods to detect cartels in the form of price collusion is based on the analysis of the market, where violation of legislation on economic competition protection is investigated. Analysis can be conducted using two models: legal and economic.

Legal model to prove price collusion is based on the assertion that any direct (and often indirect) contacts between competitors provide conclusive presumption of concerted actions on the market. Since it is not difficult for authorities to find out the fact of exchanging or obtaining information antimonopoly agencies can easily submit the evidence.

There is an illusion that price competition authorities can identify a conspiracy without a detailed study of the characteristics of the market and each individual situation.

In the AMCU practices, obtaining the necessary information to make decisions regarding control of cartels is conducted in accordance with Methods of identification of monopoly (dominant) position of business entities on the market, adopted by the Antimonopoly Committee of Ukraine of 05.03.2002 №49 (hereinafter – "Methods"). "Methods" provides separation of stages to determine the presence/absence of market dominance.

The algorithm of the analysis of the commodity market that is used by the AMCU in its practices to counter cartelization in the national economy is shown in Fig.1.

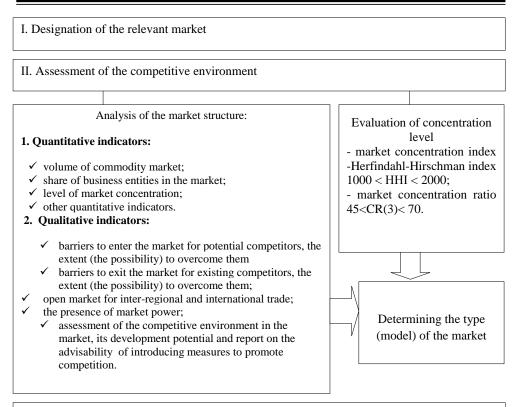
Nevertheless, by applying the above mentioned algorithm analysis of the market, key parameters of cartelization remain unexplored. After all, in the oligopolistic commodity markets, it is rather difficult to speak of independent behavior, such as the pricing behavior of business entities, especially in the situation of the availability of large amounts of information about competitors from public sources. Therefore, it is fairly easy to recognize parallel pricing by the subjects of such markets as agreed and concerted. However, finding parallelism of actions in the oligopolistic commodity market itself is not sufficient justification of the presence of price collusion provided that the direct evidence of contacts is absent.

The main problem of the methodology of price collusion detection is to discover the circumstances that truly qualify violations as price collusion. It means to determine such market factors that cause adverse effect of concerted actions and justify the economic advisability of such actions taking into account the needs of consumers, technology development etc.

The evidence of price collusion in the commodity market is divided into the following: - *evidence of communication*: evidence that competitors representatives met or in any other way had a relationship with each other;

- economic evidence:

a) creating barriers (obstacles) to enter the market for new businesses; forced withdrawal of competitors from the certain market;



III. Conclusions on the development of competition in the market, the necessary character of the Antimonopoly Policy

Fig.1. An algorithm of the analysis of the competitive environment according to the "Methods"

Source: compiled by the author herself

b) changes in volume of sales accompanied by price rising and contracts deterioration as well as imposing additional conditions of sale;

c) reduction in sales of substitute products in the relevant markets.

Indicators of adverse changes in the commodity market that form the grounds for investigation by the Antimonopoly Committee of Ukraine are the following:

- a significant increase in market prices of goods that exceeds the rates of inflation within a short period of time;

- fixing the same prices or other conditions of purchasing or selling goods between at least two business entities with significant market shares;

- establishing compulsory additional conditions of sale (purchase) of certain goods by several sellers (buyers);

- creation of obstacles to enter the market for new businesses;

- forcing out competitors from the market of certain goods;
- decrease in sales of certain goods in the market by its price increase;
- reduction in sales of interchangeable goods in the relevant markets;

- increase in sales of product (products) on less favorable terms than those normally available on the market.

In case such manifestations are observed in the market, the investigation phase is carried out, which aims to establish whether the changes in the market have signs of anticompetitive concerted actions specifically. The methodology of economic analysis in identifying price collusion is illustrated by two representative cases investigated by the AMCU.

In 2014 an investigation of skyrocketing prices for gasoline and diesel fuel resulted in trial of 87 cases of violation of legislation on protection of economic competition. The Committee formulated its Recommendations for the entities that operate under the brands of "LUKOIL", "OKKO", "WOG", "Shell", "Parallel", "Ukrnafta", "Vesta", "Avias" and "BRSM-Nafta". [5] It was recommended to take measures for the establishment of retail prices for motor gasoline and diesel fuel at a level that would exist under conditions of significant competition in the market. Since some market operators did not do so, the Committee initiated a comprehensive in-depth market research of light oil products retail with the assistance of local offices.

In 2015 the AMCU considered a case of cartel collusion of retailers that operate under the brands "Silpo", "Fora", "Furshet", "Velika Kyshenya", "ECO Market", "Caravan", "BILLA", "NOVUS", "Spar", "Beemarket", "METRO", "ASHAN", "ATB", "Perehrestya" and research company "AC Nielsen Ukraine". It was decided to impose a fine of 203 616 000 UAH [10]. The main argument in the case was the allegation that there was the exchange of information between the commercial networks, particularly, on prices and pricing methods. The AMCU determined that the level of detail and frequency of information exchange was many times higher than the "necessary and sufficient level to assess the situation on the market" resulting in a coordinated pricing conduct. None of the retailers provided information that confirmed the fact of its own monitoring of the situation on the market. Moreover seminars organized by the research company "AC Nielsen Ukraine" for representatives of all of these retailers were recognized as indirect evidence of communication and information exchange. Accusation was formulated by the AMCU as following: "The coordination of pricing policy and at the same time economically unjustified increase in prices of goods as a result of exchanging information on commodity prices between networks by using research company "AC Nielsen" which was engaged in the collection and dissemination of such information between commercial networks..." [11]

In the situations similar to mentioned above, legal proceeding of cases in the courts is inconsistent. The courts rule in favor of both the AMCU, and the economic agents accused of conspiracy. However, this practice is more encouraging than the one that was carried out in Ukraine in the early 2000s.

An important aspect of applying economic methods for detection of price collusion in the domestic commodity markets is their insufficiency from the procedural point of view. After all, the task of proving the presence of conspiracy weighs heavily on the AMCU. And in today's litigation practice it requires submitting in court ample evidence of parallel pricing being exactly price collusion.

Improving economic instruments to detect price collusion involves full use of the methodology of detection and prevention of cartel agreements on the recommendation of the OECD. [9] The latter are a kind of benchmark for many countries and may provide more effective anti-cartel practices in Ukraine. In particular, it means the strengthening of "behavioral" component in the analysis of participants' activities in specific markets in terms of monitoring the relationship between the participants before and after the announcement of the auction, prices rising, etc.

#### Conclusions

In practice of government regulation of the national economy, there is a contradiction in application of methods of identification, proof and termination of cartel collusion. To resolve this contradiction, we offer a system of information and analytical support for the monitoring of commodity markets needed to detect conspiracies. The system is based on a list of priority indicators of cartelization that reflect the possible sources of collective dominance of commodity market participants (Fig. 2).

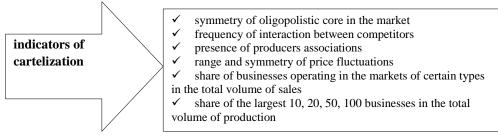


Fig. 2. Priority indicators of cartelization of the national economy *Source:* compiled by the author herself.

The system of proposed indicators has advantages related to the fact that it enables authorities to:

- identify cartel correctly by separating price parallelism from hidden agreement in each situation;

- obtain evidence of cartel conspiracy on time;

- further assess the consequences of cartelization of the national economy to ensure macroeconomic stability.

These indicators, among other things, draw the attention of regulatory bodies to the rapid and unexplained fall or rise in prices of a particular product (or group of products), the emergence of deficits, dangerous agreed distribution of market shares between a limited number of subjects and prevention of other business entities from entering the market.

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