



KAUNAS UNIVERSITY OF TECHNOLOGY
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**CARTEL FORMATION EFFECTS IN LITHUANIA FROM THE
PERSPECTIVE OF EUROPEAN UNION COMPETITION POLICY
IMPLEMENTATION**

Final project for Master degree

Supervisor

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KAUNO TECHNOLOGIJOS UNIVERSITETAS
SOCIALINIŲ, HUMANITARINIŲ MOKSLŲ IR MENŲ FAKULTETAS

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KARTELINIŲ SUSITARIMŲ POVEIKIS LIETUVOJE
ĮGYVENDINANT EUROPOS SĄJUNGOS KONKURENCINGUMO
POLITIKĄ

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LIST OF ABBREVIATIONS

| | |
|--------------------|-------------------------------------------------|
| Competition Policy | The EU Competition Policy |
| EC | EU Commission |
| ECSC | European Coal and Steel Community |
| EEC | European Economic Community |
| EU | European Union |
| GBER | General Block Exemption Regulation |
| GDP | Gross Domestic Product |
| TFEU | Treaty on the Functioning of the European Union |

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SUMMARY

The European Union Competition Policy is defined as one of the most important mechanisms of the European Union (EU) internal market. It not only covers the political aspects, but the economic ones as well. The entire EU has established the Competition Policy as a tool to protect and improve the national economy. Its main features are the abuse of dominant positions, state aid, cartels, and mergers. Competition authorities face challenges to maintain a fair, competitive internal market and to protect equal rights. However, not all companies are willing to follow all of the rules that are established in the EU Competition Policy. Cartels are recognised as secret agreements that violate the essential principles of the Competition Law. It is crucial to detect cartels in the market, which, unfortunately, is not easy to do.

This master's thesis determines one of the forbidden features of the Competition Policy: cartels. It aims to provide a comprehensive overview of the creation of cartels and its effects on the economy of Lithuania. Despite the EU developing the Competition Policy for a very long time, it underwent improvements until it was successfully implemented. However, there are still some uncertainties as to how national economies implement it. Lithuania is a comparatively small country with a relatively low culture of fair competitiveness in the market. It leads to the thesis problem statement, which concerns the ways how cartels affect Lithuania's economy. The main aim of this thesis is to measure the effects of cartels on the Lithuania's economy. It is questionable whether the Competition Council of the Republic of Lithuania implements successful countermeasures against the behaviour of anticompetitive enterprises. This aim actuality includes the aspect that the economy of each country does not stand stagnated in one point, but rather moves forward. What is more, companies are looking for new ways to increase profit and cartels are recognised as a tool to achieve this. Cartels are always different and bring various results. There are many theoretical studies on cartels, but just a few of them implement economic analysis to measure the actual impact of cartels on the national economy.

Three primary objectives are established in the master's thesis: to clarify the phenomenon of cartels from the perspective of economic theory, to verify the scope of the EU Competition Law, and to validate the effects of cartels on the Lithuania's economy. While working towards the achievement of the objectives, it was determined that the basis of the EU Competition Policy came from USA's Anti-

Trust Law. It was assessed in the Treaty of Paris, the Treaty of Rome, and, finally, in the Treaty on the Functioning of the European Union (TFEU). Nowadays, there is just Article 101 of the TFEU that considers cartel creation in the EU and its illegality. From the economic point of view, cartels were a tool to bypass the rules of competition and to increase company profits. Over the years, it has become one of the most harmful ways to disrupt fair competition in the market. The aim of creating cartels varies, but, in the case of Lithuania, most of the companies want to increase their profits by establishing fixed prices, reducing production, and sharing information or the market. Due to such behaviour, the negative impact on Lithuania's economy was double than whatever positive influence it had. Cases analyses have revealed that cartel agreements have had a negative impact on the national economy, social welfare, and the situation of the competition in the market.

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SANTRAUKA

Baigiamajame magistro projekte buvo įvertinta kartelinių susitarimų įtaka Lietuvos ekonomikai, įgyvendinant Europos Sąjungos konkurencijos politiką. Europos Sąjungos konkurencijos politika yra pabrėžiama kaip vienas iš svarbiausių vidaus rinkos elementų. Ji apima ne tik politikos aspektus, bet ir ekonominius. Visoje Europos Sąjungoje ši politika laikoma kaip elementu padedančiu apsaugoti ir sustiprinti nacionalinę ekonomiką. Konkurencingumo valdžios organai susiduria su sunkumais išlaikyti konkurencingą vidinę rinką, kurioje visos kompanijos turi vienodas sąlygas. Tačiau ne visos kompanijos derina savo veiksmus su nustatytais konkurencingumo politikos taisyklėmis. Vienas iš tokių veiksnių yra karteliniai susitarimai, kurie yra slapti ir pažeidžia pagrindinius konkurencingumo principus. Aptikti kartelinius susitarimus yra ypatingai svarbu, tačiau tai padaryti nėra lengva. Europos Sąjungos Komisija nustatant kartelinius susitarimus labiausia remiasi ir pasitiki atleidimo programa, tačiau ar ji yra veiksminga?

Šis baigiamasis magistro projektas pagrindinį dėmesį būtent ir skiria karteliniams susitarimams. Jame pateikiamas išsamus požiūris į kartelio sukūrimą, ekonomines priežastis bei pasėkmes Lietuvos ekonomikai. Europos Sąjungos konkurencingumo politiką kūrė ir tobulino ilgą laiką, tačiau išskyla klausimas kaip nacionalinės institucijos įgyvendina ją. Lietuva yra paliginti maža šalis, kurioje nėra pilnai ir giliai susiformavęs konkurencingumo suvokimas. Kompanijos ir visuomenė neturi gilių tradicijų ir aiškaus supratimo apie kartelinių susitarimų poveikį netik Lietuvos ekonomikai, bet ir visuomenės gerovei. Šis aspektas ir parodo egzistuojančią problemą: kaip karteliniai susitarimai paveikia Lietuvos ekonomiką. Šio projekto tikslas yra įvertinti kartelinių susitarimų, kurie buvo atskleisti per praeitą dešimtmetį, įtaką nacionaliniai ekonomikai. Ar Lietuvos Konkurencingumo Taryba sėkmingai kovojo su nekonkurencingu elgesiu ar ne. Ši tema yra svarbi, kadagi šalių ekonomika nestovi vietoje, ji yra dinamiška ir kintanti. Kompanijų elgesys irgi juda į priekį, jos ieško naujų būdų pasipelninti, todėl karteliai yra sukuriami kiekvienais metais, tačiau visi jie yra skirtingi ir daro ne vienodą poveikį. Yra nemažai atlikta teorinių analizių apie kartelius, tačiau tik nedaugelis jų analizuoja jų teigiamą ir neigiamą poveikį ekonomikai.

Šiame baigiamajame magistro projekte buvo išskirti keturi pagrindiniai tikslai: identifikuoti pagrindinius Europos Sąjungos konkurencingumo politikos vystymosi etapus, pateikti ekonominių kartelių požiūrį, išskirti pagrindinius aspektus, lemiančius kartelių susidarymą, ir ištirti kartelių poveikį Lietuvos ekonomikai. Siekiant išspręsti šias užduotis buvo išsiaiškinta, kad Romos, Paryžiaus ir Europos Sąjungos Veikimo sutartys labiausiai prisidėjo prie konkurencingumo politikos vystymosi. Šiuo metu, Sutarties dėl Europos Sąjungos Veikimo 101 straipsnis nustato pagrindinius aspektus ir būdus kovai prieš kartelinius susitarimus. Iš ekonominės pusės kompanijos kūrė kartelius, tam kad apeiti konkurencingumo taisykles, tačiau laikui bėgant jie buvo pripažinti kaip vieni iš žalingiausių būdų sutrukdyti sąžingai konkurencijai rinkoje. Kompanijos kurdamos kartelius turi skirtingus tikslus, vieni nori pakelti kainą ir sumažinti produkcijos kiekį, kiti dalinasi slapta informacija arba pasiskirsto rinkos dalis. Dėl šių kartelių tikslų, Lietuvos ekonomika patyrė neigiamą poveikį, kuris buvo bent du kartus didesnis nei teigiamas poveikis nacionalinei ekonomikai.

INTRODUCTION

The competition in the market has increased significantly after the European Union established the single market, which assured the free movement of services, goods, capital and labour. This market integration stressed the necessity of the adequate policy which monitors competition. The European Union established the EU Competition Policy, and it is recognised as an effective mechanism to regulate companies' behaviour in the internal market. It is an essential tool for the prosperity and economic growth in the EU. Politics and economics closely correlate in the EU Competition Policy. It is one of the EU laws where economics accomplishes significant influence on the politics. The core role of it, is to ensure that competition is sufficient and is not breaching the law. The main instruments of this policy are abuse of dominant position, state aid, merger and cartel.

Cartel agreements are secret and illegal activities which are not compatible with principles of the EU Competition Policy. Therefore, cartels are recognised by the EC as the most dangerous and harmful anticompetitive behaviour (Moran and Novak, 2009). Over the years, Competition Authorities' fight against the cartels is increasing and intensifying, however, anticompetitive behaviour is not stopping. The EU is not an exception, and Competition Policy is developed to fight against anticompetitive behaviour which nowadays is one of the priority aspect. The EU Member States move towards common goals: to maintain fair and competitive internal market by prohibiting cartels creation. It is globally agreed that this problem is actual and cartels bring adverse effect to the country's economy. Scientists' Nielsen (2011), Liefmann (1932), Montalban, Ramires-Perez and Smith (2011), Kilmasauskiene and Giedraitis (2011), Bruneckiene et al. (2015), Bailey and Wish (2015), Aghion and Griffith (2008) findings acknowledge negative impact of cartel on national economy and its actuality. However, there is another side where Salin (2004), Vejanovski (2007), Dick (2008a), Moran and Novak (2009), Steen, Hyytinen and Fink (2015), Monti (2007), Lo Bue (2016) argue and defend cartel as a tool to reach better quality production and increase society's welfare. To understand the real cartel effect, it is necessary to measure positive and negative sides. The originality of this research is that most of the scientists propose one side (positive or negative) of the cartel effect. What is more, there are not made researches about the cartel outcomes for the Lithuania's economy which are substantiated by the statistical data.

The research **problem** is how to validate cartels effects on Lithuania's economy.

The research **aim** is to validate the negative and positive effects of cartels formation in Lithuania from the perspective of EU Competition Policy implementation.

The research **object** is the EU Competition Policy.

The **subject** is positive and negative effects of cartel formation in Lithuania.

The main **objectives**:

- To clarify the phenomenon of cartel from the perspective of economic theory;

- to verify the scope of the EU Competition Law;
- to validate the effects of cartels for the Lithuania's economy;
- to generalise the negative and positive effects of cartels formation in Lithuania.

The **research methods**, for the theoretical part, are analysis of the relevant literature, legal texts and case law. For the economic part methods used are cartel case studies, review of the relevant literature, validation of economic models and descriptive statistical analysis.

The **scientific relevance** of the research is to contribute precise information about the EU Competition Law development and exclude the main milestones moving towards the EU Competition Policy. What is more, thesis proposes identification of cartel economic approach and verification of its negative and positive effects on the national economy. In the end, the cases and statistical data are analysed to validate the cartels effects in Lithuania.

The **practical significance** of this research is the outcome of the twice higher negative cartel effect than positive for Lithuania's economy. Cases analyses reveal the increasing trend of the companies' involvement in the anticompetitive behaviour and ineffective fines to fight it.

Whole research **structure** consists of the three key parts. The first part gives a complete picture of the cartel's economic approach, its effects on the national economy and scientist opinion towards it. The second part introduces the main EU Competition Law development moments and its main features. The final section proposes an evaluation of the cartel cases, statistical data analysis and findings of cartels' effects on Lithuania's economy.

1. CLARIFICATION OF CARTEL PHENOMENON FROM THE PERSPECTIVE OF ECONOMIC THEORY

The EU Competition Policy (Competition Policy) establishes a clearly negative attitude towards the formation of cartels. Only a few exceptions are mentioned in Articles 101 and 102 of the TFEU regarding situations when the creation of cartels is not considered as illegal activity. To understand the negative approaches of cartels, it is necessary to look at the economic aspect, which is inseparable from the Competition Policy. The actions of competition authorities can be considered an intervention in the free economy and an attempt to control it. This chapter will indicate the positive and negative effects of cartels on the economy, will explain how social welfare is diminished and will assess the path that should be taken to understand the effects of cartels on the national economy. The impact of cartels on the national economy has been studied by many scholars and for a very long time. Unfortunately, there is no clear and uniform model to identify the exact impact of cartels.

1.1. Classification of the main features of cartels

The original reference to a cartel is traced back to 19th century Germany (“Kartell”). The word “cartel” was used to define the coalition of two political parties—the Conservatives and the National Liberals (Oxford Dictionary, 2016). There are many different definitions of a cartel. It depends on the perspective that the scholars are considering: economic or political. From the political point of view, the Oxford Dictionary (2016) defines a cartel as a coalition of political parties to promote common interests. Investopedia (2016) proposes a definition of a cartel from an economic standpoint: organization or group of producers who make an agreement to control supply in the perspective to manipulate prices. It means that independent enterprises or countries coordinate their actions and act in unison to influence market prices. The Oxford Dictionary (2016) introduces quite a similar economic definition of a cartel. However, it includes one important idea—cartels restrict competition and manufacturers or suppliers cooperate to maintain prices at a higher level. The EC (2016) states that cartel agreements are concluded among independent and similar enterprises. They are keen on establishing fixed prices, limiting production volumes, and sharing the market or customers. Foreign Affairs (2016) considers a cartel an agreement that is concluded between two or more companies within the same trade branch to limit free production and marketing actions. OECD (2016) divides cartels into two groups: hard core cartels and soft core cartels. Hard core cartels are the most dangerous ones and violate the EU Competition Law (Competition Law) because companies agree to stop competing altogether. What is more, firms raise prices, restrict supply, make some goods or services extremely expensive or even unavailable to some buyers, and allocate customers or territories. Meanwhile, soft core cartels are agreements to share information and to take coordinated actions together.

According to Bruneckiene et al. (2015), cartel agreements have six different forms: verbal, written, unilateral decision, decisions of associations, concerted practices and other forms. The verbal form only includes private agreements that cannot be proven because there are no written agreements. Company representatives meet regularly to maintain effective activity coordination. Written form agreements are easier to prove because all of the companies that are involved in the creation of a cartel conclude a written agreement about the actions and plans to disrupt fair competition. Other types of cartels are less popular, but they still exist. Unilateral decisions are public announcements that a specific company will not sell products at a price that is lower than what is established (Bailey and Whish, 2015). Decisions of associations disturb competition, if an association decides not to manufacture specific products. For example, in the case of Lithuania, when the beer association decided not to sell strong beer and the members of the association agreed to it.

There are many opinions for cartel duration. It is believed that cartels do not last for a very long period of time. However, Grossman (2012) argues that it is hard to determine whether cartels last for a short or a long period of time because it all depends on who is judging. Griffin and Teece (2016) propose that cartels last for at least 2.5 years and long-term cartels usually last for 6.5 years. Meanwhile, Eckbo (2010) states that short-term cartels average at less than a year and long-term cartels average at 18 years. In this case, there is a big gap between short- and long-term cartels. That is why Eckbo (2010) also includes medium-term cartels, which lasts from 3 to 10 years. What is more, the classification of the duration of cartels depends on the industry in which it is created because it is believed that the duration of cartels varies in different industries.

Cartels can be public and private. The main difference between them is that public cartels are legal and allowed by the government. They cannot be prosecuted under the antitrust law (Criminal Antitrust Attorneys, 2016). One of the most famous legal cartels is OPEC (Organization of the Petroleum Exporting Countries), which has been formed by 14 countries. The main objectives of this cartel are to coordinate petroleum prices, to ensure a stable oil market, regular supply, steady income for producers and profitable returns for investors (Aghion and Griffith, 2008). Public cartels are legal because they bring more positive effects than they do negative. According to Criminal Antitrust Attorneys (2016), public cartels sometimes harm more than private cartels because they have immunity and are protected by the government. Public cartels cannot be prosecuted, they manoeuvre the market as they see fit, and it is not clear as to what actual harm they do to social welfare. In contrast, private cartels are forbidden and illegal. These cartels are prosecuted in any case and if it so happens that companies violate the Competition Law, they pay fines.

Scientists believe that the government should not intervene because enterprises operate in different markets and they have different cost levels. It is ineffective to adopt the same rules for all companies. Moran and Novak (2009) propose two main reasons as to why cartel agreements cannot last for a long

period of time and why governments should stop intervening. Firstly, the market becomes more attractive to new companies when companies involved in the cartel establish higher prices. New competitors will enter the market some time later and competition will be restored to its normal phase. Secondly, if cartels decrease prices to acquire higher market share, enterprises will have to increase prices after some time because to be efficient by selling goods or services under artificially low prices is not profitable (Aghion, Griffith, 2008). What is more, it is not easy to create a cartel. Each member of the cartel aims to gain greater profit and their interests clash. For example, companies agree on the volume of output, but if a company is cheating and producing more than it has agreed upon, it will lead to greater profits (Bailey and Whish, 2015). Of course, all of the members of the cartel can act like this and try to retain a monopoly. However, this behaviour will grow into mistrust among competitors and it will lead to the cartel's collapse. Therefore, to create an effective and strong cartel agreement, enterprises should have an effective mechanism to monitor the actions of each enterprise and how they adhere to an agreement.

Another important aspect of a cartel is geographical territory. According to Bruneckiene et al. (2015), there can be national, international, and global cartels. All of them face similar challenges—legal and economic. It is not difficult to understand the differences among them. National cartels are created in one country and affect only its market. Companies do not operate in other countries and they do not sell or buy goods or services from other countries. Foreign Affairs (2016) defines international cartels as cartels that are formed between two or more companies or associations. They are located and act in two or more different countries. Levenstein and Suslow (2009) propose more detailed differences: for national cartels, it is easier to divide the market and monitor violations between cartel members. Meanwhile, international cartels face cultural, linguistic differences, or exchange rate fluctuation. They define international markets as being more open because there are more possible market entrants. Thus, new competitors enter the market and make unstable cartels. Bruneckiene et al. (2015) define global cartels as the ones that are made between participants from two or more continents.

From a legal standpoint, cartels can be legal and illegal. There are no clear ideas and conditions proposed for when cartels are defined as being legal. According to the Steen, Hyytinen, and Fink (2015), cartels became legal during World War II and the early 90s because, during World War II, some companies joined forces to create war weapons, and once the war ended, they started to collaborate and coordinate their actions. This behaviour had a positive impact for the economy, which at that moment was stagnated. The main differences between legal and illegal cartels are that legal cartels have immunity and they are not prosecuted by competition authorities. In contrast, illegal cartels have to hide and are always prosecuted under the Competition Law because they have a negative effect on the economy. What is more, the EC (2016) considers cartels legal, if they are made for the improvement of production,

the development of technology, investment in research and development, or serve in any other purpose for economic improvement or social welfare.

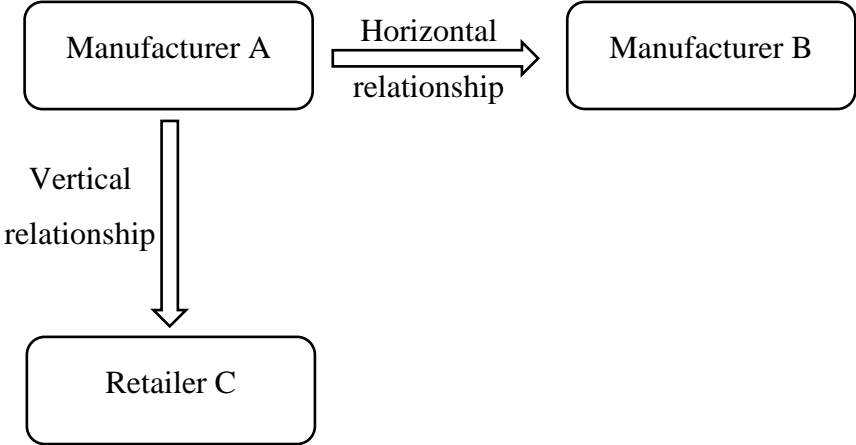


Figure 1. Vertical and Horizontal Cartel Agreements (Bishop and Walker, 2010).

Figure 1 illustrates two different cartel agreements. Vertical agreements are concluded between two companies that work at different levels of product creation. Vertical relationships include agreements between manufacturers and retailers. Typically, they agree that the manufacturer will sell its products to the retailer for a smaller price than to its competitors, and the retailer will buy a minimum set quantity of products. They can also agree that the manufacturer will sell products only to companies that work in specific territories. Horizontal relationships are established between companies that operate in the same market and belong to the same level (Bishop and Walker, 2010). This type of agreement is the most common among cartel agreements because it is created to increase profits by setting higher prices and reducing the output.

Cartel economics are defined as a company’s ambition to increase its power in the market, to gain greater profit, and to acquire the opportunities to act as a monopoly. That is why companies that are operating in the same market and that are competitors start to cooperate. Usually, not all companies in the market are involved in the creation of a cartel. To form a beneficial cartel agreement, it is enough to involve the companies that together constitute the majority of the market share. Afterwards, companies increase profits by producing less. Cartels are considered monopoly agreements because of collective behaviour (Varian, 1999). In the beginning of the 20th century, Liefmann (1932) defined cartels as a monopoly in the market. However, other scientists are not in favour of comparing cartels to monopolies because it does not include all of the cartel methods. This comparison limits the possibility to completely understand and analyse the actual concept of a cartel. Many different companies cooperate to reach goals together, but it is impossible to guarantee that all of the companies will follow the rules and that all of the companies will acquire the desired benefits. Meanwhile, a monopoly means that the market belongs to a single company that makes decisions independently and is the only one to receive all of the benefits.

Kilmasauskiene and Giedraitis (2011) state, that no matter what kind of agreement is concluded between two different companies that operate in the same market, internal competition remains because each of them have their own private interests and, therefore, if there is a possibility to deceive their competitor and to earn greater profits, they will do it. By comparing both approaches to cartels, it is possible to say that companies are willing to act collectively, as a monopoly in the market, as long as it brings greater profit. However, if the situation changes and the companies find other ways to gain more profit, they will terminate the cartel agreement. It leads to the conclusion that as long as cartel agreements are in effect, companies are willing to cooperate and monopolize the market.

There is a wide variety of different cartels in the world. Some of them are defined as legal and having immunity, while others are strictly forbidden and companies receive fines for their forming them. Each case is unique and brings new concerns on the table. It is widely believed that cartels only have negative aspects and should be forbidden in any case. However, the EC has revealed that, before a company receives fine, there is a long way to the final decision because the positive and the negative effects are measured and assessed. This is the reason why it is impossible to define all cartels using the same criteria. In this thesis, all cartel agreements are defined as:

- concluded between independent enterprises to coordinate actions;
- all of the companies work willingly and seek to benefit from it;
- all undertakings set common goals;
- cartels have different ways to profit (price fixing, output limitation, market share, etc.);
- cartels are concluded between the companies that operate in Lithuania. Their effects are assessed for the Lithuania's economy.

Cartels are quite slippery deals, especially when it comes to the aspect of violating laws. There are many studies that propose the negative effects of cartels to social welfare and reasons as to why it is hard to maintain a strong cartel. However, there are not many explanations as to why cartels endure and how to efficiently fight against their creation. In the EU, it is believed that the leniency policy is the most effective tool in stopping cartel agreements. However, it does not prevent their creation. Nobody really knows how many of them still exist because only some, but not all, companies seek to betray other cartel members, especially if all of the companies receive the expected greater profits.

1.2. Positive and Negative Effects of Cartel Formation

A cartel is a secret agreement between or among companies, which normally are competitors in the market. By concluding an agreement companies eliminate or limit competition among themselves and decide to increase their profits. This can be achieved by setting prices, sharing the market, dividing customers or territories, limiting output or making agreements that include more than one of these

objectives (Motta, 2004). Usually, companies divide production quotas, i.e. how much each of them will produce for the market. This agreement brings smaller amounts of production to the market and that is how companies can increase prices and receive bigger profits. Another possible way for the companies to create cartels is to divide up the territory and, in this case, they stop competing amongst themselves and begin concentrating on their own territories. On the other hand, the conclusion of agreements with competitors is not the only action for collusive behaviour. This situation can occur when a company takes action individually, but it considers interdependence with its competitors in the market (Kilmasauskienė, Giedraitis 2011). By its nature, such behaviour is called tactic collusion and not a cartel agreement.

There are no doubts that cartels have a negative effect on the economy. Due to cartel agreements, welfare is shifted from the customers to the producers: consumers of the same goods or services have to pay more than before. According to the Nielsen (2011), prices in the market branch increase by approx. 20–30 per cent when cartels are created. Cartel agreements can affect customers directly and indirectly, i.e. when the prices increase for the products bought by the customers and when the prices increase for the parts of products bought by the producers (Figure 2).

Cartel agreements, as mentioned above, can have different forms. One of the forms is price fixing, during which competitors agree to maintain, raise or set the prices of services or goods. If the prices are fixed, then it means that the companies have set the minimum price or have agreed to remove all discounts. The second form of a cartel is the production agreement. Competitors decide on the volume of output, sales, or percentage of the market that they serve (Montalban, Ramirez-Perez, Smith, 2011). Market allocation means that enterprises divide the market share for each company, where they sell goods or services to specific costumers, using specific products or within specific territories. Bid rigging is yet another recognised form of cartel agreements. Competitors agree to make a specific size bid that is artificially made high or low, depending on the decision that the company needs to win the bidding (Nielsen, 2011).

Companies use cartel agreements to raise prices. However, a thought occurs: can all such agreements do this and generate greater profits? Eckbo's (1976) studies showed that only 19 of 51 cases sought to increase prices. However, these increments were significant—prices were 200 per cent higher than they were before the formation of a cartel. What is more, this study demonstrates that cartel agreements are the most beneficial when increasing prices, as opposed to trying to structurally change the market (limiting access to competitors when entering the market, sharing the market, keeping a small number of companies in the market, etc.).

What is more, cartels affect fair competition, the presence of which stimulates economic growth. If this growth is breached, then companies will no longer be willing to invest in research and development, new technologies or innovations, which are key to improving the market and the goods

(Aghion, Griffith, 2008). In other words, if companies do not compete, the entire market becomes uncompetitive on an international level and it stimulates stagnation and lag.

According to Kilmasauskienė and Giedraitis (2011), cartel agreements create an oligopoly. Competition is limited because the market is shared by a small number of producers or sellers. Enterprises join cartels because they assure increasing market power and there is no competition by producing output or setting prices. Companies form an agreement for how many products they sell and how much they produce. Sometimes, collusive behaviour is considered monopoly behaviour because the members of a cartel do not compete and take actions to eliminate other competitors from the market (Montalban, Ramirez-Perez, Smith, 2011). Moreover, if companies stay strong with its cartel agreement, they increase their profits by raising the prices over the market equilibrium level. It harms the customers because they pay more for the same product. What is more, customers consume less and thus cartel members limit production volumes. The surplus is redistributed from the customers to the producers and this is the main reason why cartels are compared to the monopolies.

The negative effects of cartels are systematised and proposed in the Table 1.

Table 1. Negative Effects of the Cartel (made by the author).

| Negative effects of the cartel | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>For the companies:</p> <ol style="list-style-type: none"> 1. Decreased output; 2. Entrance of new competitors into the market; 3. Risk that somebody will cheat; 4. Risk that competition authorities impose fines. | <p>For the society:</p> <ol style="list-style-type: none"> 1. Welfare loss; 2. Higher prices; 3. Lower quality production; 4. Smaller variety of production. |

Companies are still creating cartels, despite it positively or negatively affecting the economy. A possible explanation is that the biggest fear for the companies is the possibility that the competition authorities will discover their cartel and will impose fines. According to the Bailey and Whish (2015), the enterprises are earning greater profits than the authorities impose fines. Monti (2007) argues that cartel agreements do not bring just negative effects. Mostly, it is believed that cartels restrict competition and do not produces any benefits. Nevertheless, when companies jointly restrict competition, they also have a positive effect on the economies of scale or faster product development. In this case, it is important to analyse how negative and positive effects balance each other.

For a very long time, only the negative effects of cartels were analysed and scholars did not propose any ideas on the advantages of cartel agreements. However, in the last decade, researchers have started to understand the positive effects of cartels. According to Bruneckiene et al. (2015), some

negative aspects in specific conditions can bring positive outcomes. For example, imagine that a cartel was created in the auto-mobile industry in South Korea. It increased efficiency and competitiveness both on a national and an international level. Nowadays, South Korea is one of the leaders in the auto-mobile industry (Bruneckiene et al., 2015). Salin (2004) states that cartels are necessary and beneficial for the economy and they do not last for a long time. It helps producers to stop fighting over the prices and, if the established fixed cost is high, then it helps to keep the companies within the market. What is more, Vejanovski (2007) claims that fixing the prices and sharing the market are necessary to build a business. The fixing of prices helps to prevent destructive competition in the industries with just a few competitors and with high fixed cost. This way, competitors do not compete over the prices because it is too costly. Historical facts prove that cartel agreements during unstable times are beneficial and are used to increase the country's economy, financial situation, to ensure employment and the country's competitiveness in the international market (Lo Bue, 2016). For example, during the times of the Great Depression. the government of the United States of America was supporting cartels because they assured mass production, technical improvement and control of inadequate price reduction (Dick, 2008a). On the other hand, the intervention of the government in a free market is criticized by Moran and Novak (2009). Scientists believe that cartels are unstable agreements and they last for a relatively short period of time. That is why, cartels are not a real threat to the competition and the government should not support them in any case. What is more, scholars state that government interventions are not effective and have the opposite of the desired effect. Positive effects of the cartel are proposed in the Table 2.

Table 2. Positive Effect of the Cartel (made by the author).

| Positive effects of the cartel | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>For the companies:</p> <ol style="list-style-type: none"> 1. Increased competitiveness; 2. Growth of efficiency and profit; 3. Reduced risk of doing business. | <p>For the society:</p> <ol style="list-style-type: none"> 1. Stable employment; 2. Reduced risks of closing business; 3. Reduced overproduction in the markets; 4. Stable prices. |

When analysing, it is important to take into account that anticompetitive behaviour brings some positive results. For example, the economies of scale, which bring reduced production costs and increase output. The EC (2016) has declared that cartel agreements are legislated, if they are created to improve the goods or their distribution and to promote technical or economic progress, which works in favour of the customers' welfare. In contrast, Kilmasauskienė and Giedraitis (2011) disagree with this claim and they state that companies do not move forward by making cartel agreements because companies restrict

competition and there is no stimulus for them to invest money into improving the products, innovation, or more efficient production systems. Due of this, the EU Competition Policy is a substantial tool to fight illegal behaviour in the free market.

Enterprises are willing to create cartels because there is a possibility for them to increase profits. Bishop and Walker (2010) state that the price, which is set for the products by the cartels, closely depends on the elasticity of the demand curve. If the demand curve is inelastic, companies set high prices and earn bigger profits. And vice versa, if demand is elastic then rise of the price is not delivering particularly greater profits. The demand curve is elastic when the members of the cartel decrease the output and increase the prices. Meanwhile, it leads to the increase of output for the competitors that do not belong for the cartel (Bailey and Whish, 2015). What is more, increasing prices make the market more attractive and new competitors enter it with the objective to profit from it. Both situations lead to the increment of production in the market, which lead to the decrease in prices. Authors believe that these two aspects can help to identify markets where cartelisation is more likely to occur.

Cartels do not appear in all of the sectors at the same level or frequency. According to the European Commission (2016g), the manufacturing sector has the most cartel agreements. What are the reasons for the formation of cartels in a specific industry and its existence period? Stigler (1964) tries to identify the reasons as to why some cartels last for a long period of time, while others do not. Firstly, to maintain a long-lasting cartel, companies should have an agreement regarding the coordination of the cartel. Secondly, there should be clear detection and punishment system for when member of the cartel try to cheat. Meanwhile, Dick (2008b) indicates the six main factors when cartels are not likely to occur within the sector:

1. a lot of small businesses work in the sector;
2. production is complex;
3. frequent development of new products;
4. just a few large customers that buy infrequently;
5. possibility for new sellers to manufacture products at the lower cost;
6. customers tend to negotiate for the individual prices or terms.

This list shows that cartel agreements depend on more than the businesses that operate in a specific market. It also includes the specificity of the market (the cost to manufacture products, the size of the competing companies, etc.). Moreover, customers play a significant role as well: whether they buy products often, whether they are looking for individual proposals, or whether they are keen on staying loyal with their choice in partners (Bailey and Whish, 2015). Moreover, it is necessary to mention the institutional impact to cartel agreements. It depends on trade or business association efficiency to provide the necessary operational mechanisms to fight cartel agreements, to accumulate all of the information regarding prices, market changes or other necessary information. Unfortunately, there is no real evidence

proving whether these factors actually influence for the formation of cartels and whether it is the right tool to forecast possible cartel agreements in the future.

George Stigler (1964) is one of the first to analyse why there are different amounts of cartel agreements in different sectors. He suggests many conditions that increase the possibility of an occurrence of a cartel in the market. What is more, other authors like Motta (2004), Bishop and Walker (2010), Carlton and Perloff (2005) improve upon the list and provide obstacles for the creation of cartels in the market. Table 3 indicates market aspects that increase and decrease the possibility of a cartel forming in the market.

Table 3. Aspects that Increase and Decrease the Formation of Cartels in the Market (made by the author).

| Increase cartel creation | Decrease cartel creation |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> • few firms in the market • market transparency • growing market • high production cost • a lot of customers • spare capacity in the industry • risk of bankruptcy • product homogeneity | <ul style="list-style-type: none"> • many firms in the market • market dynamic • demand elasticity • low production cost • few customers |

The number of enterprises operating in the market exemplifies a significant impact on cartel agreements. If there are a lot of companies in the market, it is hard and costly to manage cartel agreements. Moreover, this means that the companies will get lesser benefits, which leads to a higher possibility to cheat other cartel agreement partners. Also, *the size of enterprises* has an impact because stronger and bigger companies can influence the behaviour of smaller ones. It is more probable for cartel agreements to be arranged between companies of similar size. The possibility of concluding a cartel agreement decreases, if there are no *obstacles* to enter the market. This means that any company can begin its operations in the market, thus increase competition, and, under this condition, enterprises are less likely to cooperate. *Market transparency* increases the number of the cartel agreements in the market because companies can easily monitor competitor behaviour and the decisions that they make regarding prices or discounts. It is more difficult to deceive other companies because they can react easily and quickly and take action against it. It is easier to maintain a cartel agreement in a *growing market* because companies are expecting greater profit than what they are generating now. However, cartels are typically found in markets where the demand is declining, the reason of which is that companies are facing market changes that are easier to solve by cooperating with each other. *Demand elasticity* for prices diminish the possibility of cartel creation because companies that are interested in increasing prices will then face

customers that will buy less and it will be less profitable for them. It is believed that cartels are the most profitable in the short run because customers can find alternatives during long period of time. If there is one big *customer* in the market, then cartels are not efficient and cannot increase the profits significantly. If prices rise, then the customer has a choice to acquire products from the other companies that are not included in the cartel agreement. Moreover, it is less likely that the market will be divided. If the company has *spare capacity*, it is willing to sell its products at a lower price and to sell its output capacity. However, if companies do not have reserves or they cannot produce more units at the same time for a lower price, then they are more willing to form cartels. If companies share a similar size of *production cost*, then they are more interested in concluding a cartel agreement, as opposed to those who pay different production costs. It is so because those who incur less expenses are more keen on reducing prices, but it is too costly for others. What is more, companies with smaller expenditures are more likely to violate a cartel agreement. On the other hand, a high possibility of cartel agreements is present in markets where companies sell *homogeneous products* because of a huge variety of products and the possibility of choosing subsidies reduce market transparency, which was mentioned before. Vice versa, competition is smaller in the market where products and services differed from each other. What is more, if companies are operating in a market where there are high ongoing costs, it leads to greater *bankruptcy risk*. In this situation, companies are interested in cooperating and do not to fight by reducing product prices in the market by maintain relatively high prices.

Bishop and Walker (2010) highlight some of the aspects that influence the creation of cartels. They state that industries with heterogeneous products, highly volatile markets, and markets with no barriers for entrance are not likely to have cartels. Authors argue that the other market aspects are not crucial and do not prevent companies from creating cartels. To detect cartels that share the market, competition authorities should identify whether companies are equally active in all areas. There is a possibility that a group of companies has created a cartel, if there is one company that is active in only one geographical territory, meanwhile another company takes actions in a different territory. On the other hand, it is possible that enterprises act like this in fair competition and they seek to become dominant in at least one region, after which it will move to other areas.

All in all, the specificity of the market should not be left unconsidered when forecasting the occurrences of cartels. A systematised overview of the reasons that stimulate the formation of cartels help to identify the most vulnerable markets. Such markets have high fixed cost, relatively few competitors, and opportunities for acquiring substitutes. This theoretical approach can be used to monitor the most sensitive sectors. Institutions can specifically observe changes in the prices or production in the market and be aware, of the fact that these changes regard anticompetitive behaviour.

1.3. Effects of Cartel for National Economy

There is no one correct approach to measure the effect of cartels on the national economy. Each scholar assesses it individually using different indicators. Bishop and Walker propose a clear model to determine how and why companies create cartels. Motta (2004) introduces the economic model to help understand how the formation of cartels establishes fixed prices and reduces output. Meanwhile, Dierx et al. (2015) recommend a framework to assess the impact of cartels on the national economy. All three steps help to understand the main reasons as to why companies act this way and how social welfare and macroeconomic indicators are affected by the creation of cartels.

Figure 3 depicts a situation whereby there are two companies in the same market.

| | | Firm B | |
|--------|------------|------------------------|---------------------------|
| | | High price | Low price |
| Firm A | High price | Cartel 10;10 | 0;30 |
| | Low price | 30;0 | Competition 4;4 |

Figure 2. Prisoners' Dilemma game (Bishop and Walker, 2010).

The first number indicates company's A profit and the second number—the profit of company B. In fair competition, both enterprises compete, they set relatively low prices, and earnings are equal to four. Companies set different type prices (one sells for a high price and the other—for the low price) in two extreme situations. It is clear that consumers will more likely buy products for a lower price and that the company's profits will be equal to 30. Meanwhile, the other company does not profit at all. Both enterprises want to make an agreement and establish high prices. To achieve this, enterprises create a cartel and the profits of both companies are equal to 10 (Bishop and Walker, 2010). This game also explains the difficulties of the cartels. During the agreement, both companies set high prices, but the possibility to earn more, even just on the short run, can encourage the company to cheat and to set low prices. In this case, the cheating company earns 30 instead of 10. This situation changes quickly because the other company sets low prices too. Afterwards, the market returns to fair competition. It is a vicious circle and there are many possibilities to violate the cartel. However, if companies are thinking about the prospects of a long run, they will seek to maintain the cartel and to not cheat on each other. In order to maintain a strong cartel agreement, it is necessary to have effective coordination. Companies need to interact with each other and to implement effective monitoring system that follow and observe all of the

actions taken by a cartel's members. This assures that cheaters are identified quickly and their profits increase for a short period of time only.

However, is it possible to claim that cartels last for a short period of time and are unstable? It is necessary to take into account the fact that enterprises will still keep their own interests in mind. Veljanovski (2006) notes that companies, before deciding to cheat, weight the possible benefits and outcomes. By violating the cartel agreement, the company gains a greater market share. However, if the competitors find out about another company cheating, they punish it. According to the EC (2016f), the longest a cartel agreement has survived was 29 years and this proves that companies are capable of overcoming the existing tension and instability. Companies are capable of creating long-lasting cartels and thus enjoying greater profits. However, maintaining a strong cartel is difficult and the idea of cartel instability helps to strengthen an efficient fight against cartels and to detect more sensitive industries (Veljanovski, 2006). Companies in the cartel agreement are motivated to sell their products at a lower price than it is established in the cartel (Montalban, Ramirez-Perez, Smith, 2011). Figure 3 illustrates the situation when enterprises attempt to sell products at a lower price and earn 30 instead of 10. This situation is recognised as the main reason as to why cartels are unstable and hard to control. Actually, companies do not need to decrease prices dramatically. Even a slight reduction of the cartel-established prices leads to dramatically increased sales and profits (Lo Bue, 2016). Unfortunately, it is not easy to do this. A company needs to assess the outcomes because the other cartel members can punish the cheater. Bishop and Walker (2010) point out three main factors that determine cartel stability: future benefits, the possibility that cheating behaviour is disclosed by the other cartel members and, lastly, the possible sanctions or punishments from the other cartel members addressed to the cheater.

What actual harm do cartels bring to the economy? According to the Nielsen (2011), the main problem is that companies in cartels receive market power that they would otherwise not have. That is why cartels are restricted under fair competition conditions. If companies acquire a dominant power in the market by forming a cartel, they can increase the prices and reduce social welfare. How can cartel agreements have negative effect on welfare? Firstly, it is necessary to become familiar with the market power. It allows the companies to influence the market to achieve their purposes. The effects of the market power are irrationally allocated resources, increased prices, reduced output, and redistributed incomes from customers to producers. Figure 3 helps to illustrate and understand these effects.

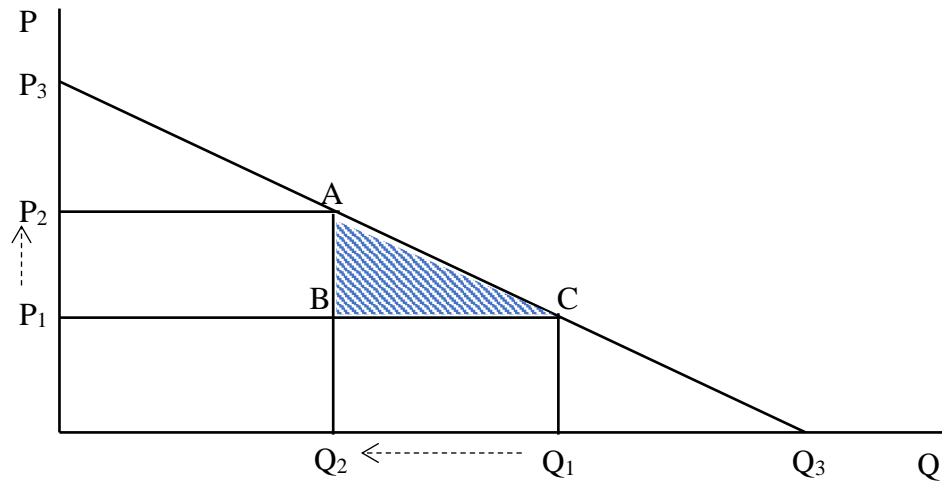


Figure 3. Social welfare loss (Motta, 2004).

Operating under fair competition rules, companies produce Q_1 for the price of P_1 . Meanwhile, if a cartel agreement is concluded by competitors that are interested in acting as monopolists, then the prices increase to P_2 and the quantity reduces to Q_2 . The price increases by $P_2 - P_1$. What is more, the society experiences a loss because the output is reduced by $Q_1 - Q_2$ (Motta, 2004). All of these encourage some of the consumers to leave the market because the price that they are willing to pay is lower than the price the producers have set. The exact loss of consumers is illustrated in the graph as Figure P_1P_2AC because the surplus of customers in a fair competition is triangle P_1P_3C . Meanwhile, the surplus of consumers under a cartel agreement present in the market is triangle P_2P_3A . The loss is divided into two parts: the relocation of income from consumers to producers (P_1P_2AB) and consumers' loss, which is called deadweight loss, appear because of the market power that the companies acquire by concluding cartel agreements (ABC) (Motta, 2004). This triangle measures the reduced welfare for the customers and producers by increasing prices and decreasing production volumes. It is questionable whether the transfer of income from the customers to the producers is really a loss of welfare. The answer depends on the perspective of the people and on political judgements. However, the EC has established that the goal is to have maximum customer surplus—not that of producers. This is the reason why the actions of the companies to increase profits by reducing the customer welfare are judged.

Moreover, all social welfare losses are not included in the deadweight loss. It should consider company resource allocation and advertising that encourages customers to buy their products. Cartel members need to ensure that new companies do not enter the market. They invest in the products and it becomes ineffective for competitors to enter the market (Motta, 2004). These strategies are costly for companies and they reduce social welfare.

However, cartel agreements do not just have negative effects on the society. By monitoring anticompetitive behaviour, a lot of factors should be taken into account. According to Montalban, Ramirez-Perez, Smith (2011), detection of anticompetitive behaviour can be improved by answering

some questions. Firstly, do enterprises perform actions that are inconsistent with fair competition—are there clear changes in their behaviour compared to previous years? If the answer is yes, then there is a clear possibility that the companies are involved in a cartel. The other question to answer is whether the companies that are suspected of involvement in a cartel agreement act differently than those that are not suspected. This question does not identify whether members of a cartel act inconsistently or not. However, as it was mentioned previously, companies that are involved in cartel agreements tend to change prices or territories in which they operate. Meanwhile, companies that are not involved in the cartel still act as if it was a fair competition. This means that if all of the companies operate under competitive market conditions, they act similarly, and when a cartel is created, their behaviour changes. The next question is whether there are structural changes in the market, e.g., whether there is significant change in the product price. The increase or decrease in the price indicates cartel or fair competition conditions in the market (Montalban, Ramirez-Perez, Smith, 2011). The prices of the entire market can be analysed to find out if there are more companies involved in the cartel. Enterprises that set similar prices should be especially monitored. Besides reviewing prices, one can also analyse market share variations. Other scholars (Motta, 2004, Nielsen 2011 and Dierx et al., 2015) propose two main ways to measure the aggregate Competition Policy effect. One of the ways assesses the direct effect on the consumers, while the other assesses the direct and indirect effects on the competition, the state’s GDP and other macroeconomic indicators (Dierx et al., 2015). According to the authors, more developed analyses regard the direct effect on consumers, but it is necessary to take into account the macroeconomic changes as well. Dierx et al. (2015) suggest an integrated framework for analysing the effects of cartels (see Figure 4).

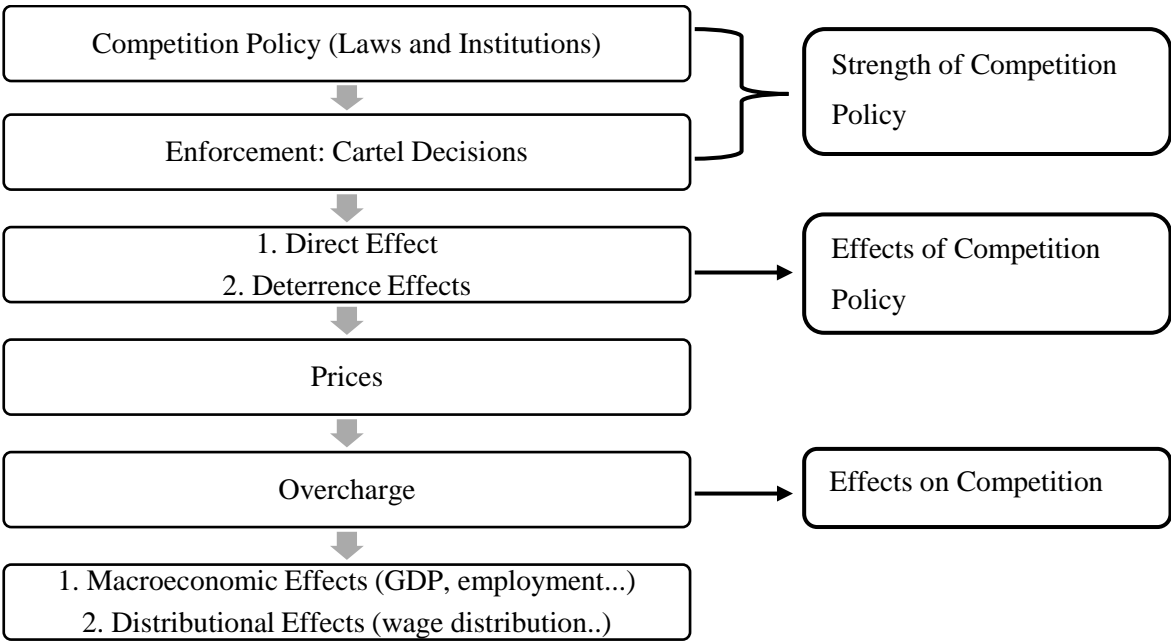


Figure 4. A framework to assess cartel impact for the national economy (Dierx et al., 2015).

This model suggests the analysis of the impact of the Competition Policy on competition by itself and then—the impact on macroeconomic elements. Competition Law is included here as an important part of the EU Competition Policy that prohibits cartel agreements (Dierx et al., 2015). Moreover, the EC is considered a strong and important institution that interferes in the area of competition. Microeconomic elements are included as a possible increase or decrease in customer savings due to changes in the market. Macroeconomic indicators take a wider approach of the cartel's effects on the state's economy. According to the Dierx et al. (2015), indirect measures are also taken into consideration to observe the impact of competition because competition is not assessed in a direct manner only. This is why the overcharges are measured. This indicator shows the price that the customers over pay because of the presence of a cartel within the market. Bruneckiene et al. (2015) also proposes the idea to measure macroeconomic indicators because they affect the national economy. The most important aspects to be included are paid taxes, overcharge, reduced production, lost cost, paid company taxes and fines in the national budget and deterrence effect. All of these indicators positively or negatively influence the national economy and it is important to determine the balance of both sides.

Cartel agreements are an illegal activity for which the EC has a concrete way to measure fines (Prefix 1). According to Connor and Lande (2012), sanctions are imposed as criminal fines or company officials are put in prison. Unfortunately, these sanctions do not deter companies from getting involved in the formation of cartels. Economists Stelliou and Hancock (2014) state, that the EC fines are relatively small for the companies compared to the profits they receive by creating a cartel. For example, in the case of Unilever and Procter & Gamble in 2011, where both companies created a cartel in eight EU member states. It lasted for three years and Unilever had to pay a fine of 104 million Euro, meanwhile, in 2011, the company's turnover compared to 2010, was higher by 2.205 billion Euro (Unilever, 2011). It shows that the company has earned twenty times more than the fine it has received.

The EC has established clear rules for the companies and actions that are considered anticompetitive behaviour. The EC usually starts to take action against enterprises when they have documentary evidence. It proves that companies make anticompetitive agreements on price, customers, market share, and other. To administer a fine, the EC does not need to have evidence that the agreement has an actual impact on the national economy, but economic analysis is helpful. First of all, it helps to understand whether a cartel has negative or positive effects. Secondly, it explains whether the creation of a cartel has an impact on the changes in prices. However, it is not always that the formation of a cartel increases the prices above market equilibrium, which is what companies expect. In this case, the creation of a cartel is ineffective and economic analysis is not capable of proving that a cartel exists. However, this does not protect cartel members against penalties because the EC can impose fines, if they have documentary evidence of the creation of a cartel despite a cartel not influencing the economy or the profits of the competitors.

All in all, the possibility of creating a cartel in the market strictly depends on the industry in which the companies operate. Market features have a significant impact on the maintenance of a successful cartel: demand elasticity, the number of companies, obstacles for new competitors to enter and other factors. Moreover, it depends on the motifs that the companies have by creating a cartel and its sustainability. Motifs define the difference between profit that the enterprises earn while being a part of a cartel and the profit while operating under fair competition conditions. Sustainability greatly depends on the ability of a cartel's members to keep up with their promises, strong coordination, and a system to detect if no one violates the rules. It is not a question of whether cartels have a negative effect on the economy and whether it has direct and indirect effects. However, cartelisation has some benefits too but they are not widely analysed among the economists.

2. THE SCOPE OF EUROPEAN UNION COMPETITION POLICY

Competition Policy is the complex area which includes politics, economics and law. It sets conditions for the market accession, its concentration and enterprises' cooperation. Competition Policy is one of the main tool which helps to set the rules for fair and equal market for all users and prevents cartel creations. By mentioning users, it is necessary to specify them: it can be consumers or enterprises. The EC has full right to act and to measure if anyone did not breach the rules of the fair competition. Aims of this chapter are to introduce the EU Competition Law development, to identify the main difficulties, weaknesses and successes which are reached. After that, features and objectives of the EU Competition Law are explored.

2.1. Historical Approach of the Development of the European Union Competition Law

To get familiar and to understand the European Competition Policy, it is necessary to take a closer look at the historical development of the policy. Historical overview lets clearly understand political and economic roles and ideas of the policy. This subchapter provides chronological evolution of the European Competition Policy.

It is believed that Competition Policy started in the USA and after that reached Europe. At that time, Competition Policy was called antitrust. Antitrust came to the political life because of the increasing number of huge enterprises in the transportation, telecommunication and energy fields (Chirita, 2014). Costs dramatically felt down and competition was just intensifying but prices were not decreasing. Because of this, small businesses left the markets, giant companies stayed and took the dominant positions. To fight the existing situation and keep free market for everybody, Sherman Act was adopted in 1890 (Klaus Patel and Schweitzer, 2013). Antitrust policy was weak during the World War I until the Great Depression. However, the weakened economy showed the necessity of coordinated actions to prevent anticompetitive behaviour in the USA.

The idea of Common Market in the Europe born just in 1950 with French Minister Robert Shuman's speech "Schuman Declaration". Minister stated that federalist method has to be abandoned and countries have to move towards neo functionalist processes. Which means that, European countries, which want to create the union (especially France and Germany), have to move towards European integration in a coal and steel area. These industries drawn the most attention, because they were used to create new weapons during the World War I (Klaus Patel and Schweitzer, 2013). From the economic approach, Common Market, in the coal and steel fields, caused the need to establish a public authority to control the market, which should not include price discrimination, cartels and trade barriers. The coal and steel unity was suggested from the political and economic points of the view. Moreover, French sought to control coal and steel industries in the Germany, to avoid another war (Warlouzet, 2010). What

is more, French steelmakers wanted an access to buy Germany's coal for the same price as Germans. Additionally, steel consumers had to be protected, and to do that efficient anti-cartel policy was needed (Leucht, 2009).

European Coal and Steel Community (ECSC) was established with the Treaty of Paris, which included antitrust provisions (Klaus Patel and Schweitzer, 2013). First principal, which came along with the provision, was creation of the High Authority. It was a supranational, independent institution from the national governments, and it had a power to make autonomous decisions. To reach the economic integration, it was necessary to take economy apart from the politics (Klaus Patel and Schweitzer, 2013). What is more, the EC got competence to regulate anticompetitive activities such as cartels, mergers or price discrimination.

Unfortunately, High Authority set a weak policy with strong legal provisions. According to Chirita (2014), policy was unsteady and inconsistent. Independence of the Member States was reduced because it meddled with the opinions and decisions of the High Authority. It is believed that, European Coal and Steel Community created three legacies for the EU Competition Policy. Firstly, European integration with open market, secondly, firm institutional framework and thirdly, weak implementation of the policy (OECD, 2005). Two first aspects strengthened the policy, and showed the necessity of it. However, inability to make effective decisions, weakened the whole idea of the EU Competition Policy.

The Treaty of Rome was signed in 1957, and the European Economic Community (EEC) was created by six countries (France, Italy, West Germany, Belgium, the Netherlands and Luxemburg) (Lianos, 2009). The aim of the Treaty was to maintain political cooperation, which assures the peace in the EEC. However, all communication was built mainly around the economic issues, and competition became a central aspect of the Treaty. The existed situation is proved by the EEC Treaty's Article 40(2a), which concerns the promotion of the "common rules" and assures that competitive behaviour is not "distorted in the Common Market". What is more, all Member States had to promote economic policies to maintain "a harmonious development of economic activities" in the EEC (Article 2). Three main competition pillars were set in the Treaty of Rome. State aid and the rules for it, abuse of dominant positions and cartel creation, which were prohibited in the Treaty. Countries made an agreement to establish a Common Market for people, capital, goods and services. One market was created in the EEC, and all enterprises got an access to enter the market within borders of the Member States (Klaus Patel and Schweitzer, 2013). Treaty of Rome set clear and stable provisions over the years, and it was one of the main step which led to the European market integration. It removed the barriers, for Member States, to trade with each other. Competition played the most important part in the Treaty of Rome, which ensured growth of the society welfare.

Different aspirations were reached by signing the Treaty of Rome. ECSC realised the need to improve the EU Competition Policy (Chirita, 2014). Treaty of Rome was a step taken entirely by the

ECSC, and it assured that Community will become less depended from the influence of the USA. This Treaty assured that intervention of the public authorities is reduced in the economy area. Moreover, the weakest economic actors (customers and small enterprises) were protected from the strongest ones (Leucht, 2009). Treaty of Rome sought to make the EU Competition Policy stronger and more efficient, however, there were some uncertainties by interpreting articles and competence allocation between national and supranational institutions. Two different opinions exist about the Treaty of Rome. Charita (2014) claims that it was successful step towards independence, but Leucht (2009) states that it was a failure towards implementation of Common Market and Competition rules.

To accomplish the EU Competition rules, the EC received the competence to monitor and act under it, and there were set priorities of enforcement by regulation 17/62 (EEC Council, 1962a). This Regulation brought new features in the EU Competition Policy, such as notification of all agreements, which are made between companies in the EEC (OECD, 2005). Another important feature was that, this Treaty did not include rules for mergers and they did not need to be notified to the EC. Moreover, the EC could start a case, when they suspected that enterprises were involved in the anticompetitive activities. Delegates of the Member States composed an advisory committee, and they had a right to give their opinion about the cases. However, the last decision was made by the EC because it was in its power to declare how to adapt the case (Chirita, 2014). In this way, the EC obtained the monopoly in the decision making. In general, all the restricted activities of the enterprises were banned by the EC unless it decided otherwise. Moreover, the EC had an exclusive competence to contribute individual exemptions over the Competition Policy.

The basis of the EU Competition Policy in the EEC was created during 1950-1962. All the information, about cooperation of the enterprises, was collected and centralized. The EC took decisions and fought with anticompetitive actions, to maintain fair and equal rules for everybody in the market (Monti, 2007). The EC reached to create stable and fair common market among the Member States, and it helped to build strong beginning for the development of the European Competition Policy.

According to the Warlouzet (2010) next historical period, for the European Competition Policy, is called as a spill-over. The reason for this is that, the EC did a great work in managing cartels but other issues appeared, which were related to the state aid, monopolies and mergers. They were controlled indirectly, and was incompletely defined by the regulations. Companies started to make distribution agreements, by which suppliers agreed not to sell production to new competitors in the market. The EU Competition Policy did not cover these type agreements but they disrupted fair competition in the market. In 1962 the EC adopted new Regulation, which included notification system for the exclusive agreements (EEC Council, 1962b). But situation did not change, Regulation remained unclear, because enterprises did not know if they have to notify their agreements or not. The EC sought to get a competence to issue block exemptions, by which they could make some agreements eligible, even

though they restricted the competition. However, the EC reached it just in 1965, when new Regulation was adopted and it was in the EC hands to suggest block exemptions to the Council (Lianos, 2009). This Regulation was designed to fight with huge number of notifications and to easier the EC work with anticompetitive behaviour. However, the EC did not reach to maintain dominant position in decision making, because they firstly had to get the EU Council approval, for making block exemption.

However, this policy was new in the EEC, and Member States had different economic structures, statistical data, and relations between enterprises were incomparable. All these differences created difficulties to define and maintain the EU Competition Policy. According to Motta (2004) first legal decision was issued in 1964 with “Grundig-Consten” case. Because of this case, Commission realised that Competition Policy is not perfect and significantly limited, and it does not cover situation when company distort competition between Member States. Information Centralization was identified as the main problem, because the Commission received huge amount of notifications, and Commission did not have enough sources to overview all of them. The Commission wasted time for the unimportant notifications, which did not breach the law. It led to ineffective work, because to detect the cases, which breached the law, took a lot of time (Klaus Patel and Schweitzer, 2013). Unfortunately, created block exemptions did not reduce the notification flow as expected. Member States did not see the Commission as an institution, with a competence to make quick decisions on important cases, and this weakened the whole idea and efficiency of the Competition Policy.

At the same time, when the Commission was struggling with the Competition Policy, the USA companies grew and started selling its production in the EU. Large enterprises increased the competition, and this aspect stimulated the improvement of the European Competition Policy. What is more, the fear of inflation pushed the Commission to create new Competition Policy approach, which included the control of mergers, concentrations of the enterprises and protection of the consumers (Lianos, 2009). From 1970 European Competition Policy grew to the new ideological context. Unconditional compliance, with the competition rules, should protect Union from inflation, and help to reach consumer welfare. With this new approach, Commission used soft law to hold new notifications and to cope with the old ones. From this, new beginning, the Commission started to impose fines and denounced foreign enterprises (Klaus Patel and Schweitzer, 2013). The main principal basis was written in the Articles 85 and 86 EEC, where the main rules were explained for enterprises. Moreover, there were explained features, according to which, the Commission was approving (as legal) or rejecting (as illegal) dominant positions. Already, in 1971 the Commission blocked a first merger, and when the case was appealed the European Court of Justice approved the Commission decision (ECJ, 1973). Even though, at that time, Commission worked mostly with the merges, which were connected to the abuse of dominant position, the first case showed that, the Commission was in the correct path by improving Competition Policy, and the European Court of Justice supported the Commission actions.

The procedural framework of merger regulation was approved by the European Parliament and the Economic and Social Committee in 1974. The notification system was left, the Commission still had the exclusive competence to decide, if merger case is compatible with the Treaty of Rome or not (Chirita, 2014). Advisory committee consisted from delegates of each Member States. Clearer rules were set, when it was national authorities' competence to deal with mergers and when it was in the Commission competence. Mostly, all multinational companies were under the monitor in Europe (Warlouzet, 2010). Unfortunately, even though the Commission had approval towards its work on the Competition Law by some institution, but there was left one obstacle. Council did not approve it right away and made decision just after 15 years, in 1989.

The Council delayed the decision, because of some reasons. Firstly, the Council had to study the compatibility of Competition Policy with other EEC's common policies, and secondly, Member States lacked the solidarity by solving the existed oil crisis at that time (Chirita, 2014). What is more, there were debates that, Article 86 EEC did not include clear information for merger control. This Article needed an improvement, because the Commission was capable to make decisions, which were only involved with abuse of dominant positions and other cases were left aside. At that time, too many cases fallen within the Commission's action area and not within national ones. It took a long time, for the Commission, to make decision for one case (3 months which could be extended by 9 months if the case was complex). What is more, it was not clear, when the Commission can ban the merger and when not (Monti, 2007). According to the Buch-Hansen (2008) the Competition Policy did not define criterions, how the Commission is going to apply merger control, it was unclear and unpredictable. Member States and companies in the Europe had an uncertainty how it would affect them.

According to the Warlouzet (2010), after all this time of unsuccessful tries to improve the Competition Policy, at last the rise of the European Competition Policy came. The influence for this shift had existed neoliberal ideas in Europe, which limited Member States' intervention in an economy. Neoliberals supported undisrupted free market dynamic. These changes were supported by the Member States, supranational institutions and multinational enterprises. In 1989 the EEC Council approved new Regulations of the Competition Policy, which were made by the Commission (Lianos, 2009). Directorate General for Competition broaden its actions area, which included monitoring state aid and state intervention in the sectors. At last, the Commission successfully introduced reforms of the Competition Policy, which were based on market concept (Jabko, 2006). Technical and political issues related to the Competition Policy were solved, and the Commission could act and made decisions with a certainty and clarity.

The next period of the Competition Policy was successful, and accompanied by improvements and collective work among different institutions. Until 2003 the EU Member States had many different Competition Policies, which were the basics of the different Member States Competition Policy regimes.

Commission established supranational laws and took control under the actions, which distorted trade in the Union. Each Member State had to implement the EU Competition Policy in their national law. The Commission since 1962 kept the right to investigate anticompetitive behaviour, to take binding decisions and impose fines, which could reach 10% of the turnover (Lianos, 2009). Treaty on Functioning of the European Union was established in 2012 and it included all Competition Laws. Articles in the TFEU were improved, and nowadays cartel agreements are monitored under the Article 101, abuse of dominant position, mergers and monopolisation under Article 102 TFEU, state aid under Articles 107 and 108 TFEU (Chirita, 2014). Each Article clearly defines, which behaviour is illegal and forbidden in the EU. Moreover, there are included possible exceptions and the fines for enterprises if they breach the law.

This long and hard work, of the different institutions, reached the goal to create Competition Policy, which will work for all Member States separately and together. The main chronological steps, which led the EU Competition Law to existence can be seen in the Table 4.

Table 4. Chronological Development of the Competition Law (made by the author).

| | | |
|------|---------------------------------------------|------------------------------------------------------------------|
| 1892 | Sherman Act | Anti-trust law in the USA |
| 1950 | Schuman speech | The idea about common market |
| 1951 | Treaty of Paris | European Coal and Steel Community |
| 1957 | Treaty of Rome | Economic efficiency and European market Integration |
| 2012 | Treaty on Functioning of the European Union | Common rules on Competition Law and harmonisation of regulations |

Without all these mile stones, the EU would not have Competition Law. Today, the EU Competition Policy takes into account not only economic efficiency, but also social aspects. The EC shares its monopoly power in the Competition Policy with the national authorities and judges, which can give exemptions for the enterprises. What is more, notification system is withdrawn. These changes came with the modification of Competition Law and led to the more efficient system, where main focus was on the most important cases and not hundreds of small ones.

Lithuania had many barriers to implement the Competition Policy. Firstly, it was depending from the Russia and did not have its own currency. Only in 1993 Lithuania became a part of the International Monetary Fund and separated from the currency of the Union of Soviet Social Republic (Kozak, 2013). Lithuania’s Competition Law was validated only in 1999 (Teises Aktu Registas, 2016). However, this law had contradictions. Competition Office had the right to monitor anticompetitive behaviour, meanwhile, government kept the right to reduce taxes or give subsidies for specific companies. Nowadays, Lithuania’s Competition Law is based on the TFEU. Article 5 concerns agreements which

reduce fair competition in the market, Article 7 controls abuse of dominant position, Article 8 monitors mergers Article 45 sets rules for fair state aid (Teises Aktu Regstras, 2016).

The historical review shows that it was hard to move from the first idea of the Competition Policy, where the most important part was information centralization. Even after realisation that this system was not working sufficiently, it was difficult for the Commission to implement another work framework. It showed the weakness and disability to cope with the information flow and to fight with anticompetitive behaviour. Competition Policy has a long and difficult historical path, while it reached its effectiveness. Because, it was unclear and insufficient how the Commission determined, which case breached the Regulations and which one did not. Even though, the Commission had the support from the European Parliament, it did not reach to take advantage of the existing situation. Even more, there was a lack of actions, which would bring the Competition Policy to the new light, after failures with an information centralisation and uncertainty of the Article 86. All these moments created the Commission as an institution, which lacked political acumen and was incapable to implement economic doctrine for the Competition Policy. It took almost forty years, for the Commission, to define the Competition Policy and to become efficient in decisions making. Treaty of Rome ensured that Competition Policy would seek the EU economic progress. But after fifty years this goal changed with the TFEU to European market integration and economic efficiency establishment

2.2. The European Union Legal Regulation and Objectives of Cartel Agreements

Today the EU Competition Policy is defined in the Articles 101 and 102 of the Treaty on the Functioning of the European Union (Prefix 2). This policy force enterprises to suggest high quality goods and services for the best price, because, in the competitive market, consumers have a right to choose between the wide variety of different productions. Enterprises all the time have to move forward, invest and create production, which suits the best for the society's needs. Because of the tension, companies are keening to cooperate with each other and make agreements. This is the moment when the EU Competition Policy comes into the business life. Not all agreements, made between companies, are legal and they can create unfair competition conditions in the market. This subchapter overviews the main articles, which help to control fair behaviour of the enterprises. Also, all institutional work and bodies, which are involved during the control of the uncompetitive behaviour.

Article 101 TFEU mainly concerns all type agreements: horizontal and vertical. These agreements can be legal and illegal. If agreement intervenes fair competition and reduces the consumers' welfare, then it is kept as an illegal. The Commission starts to investigate them and imposes fines for the enterprises. Mostly, Article 101 TFEU is infringed by the cartel agreements (European Commission,

2016). Article 102 TFEU creates rules for the companies, which have dominant position in the market. It is forbidden for the enterprises to abuse such position and harm fair competition.

The Commission has an exclusive competence to act under the Competition Policy and to enforce rules of the Articles 101 and 102 TFEU, to fight with anticompetitive behaviour. It is in the Commission power to impose sanctions for the companies or end the case (Chirita, 2014). But there are more actors, which are included in this process (Figure 5).

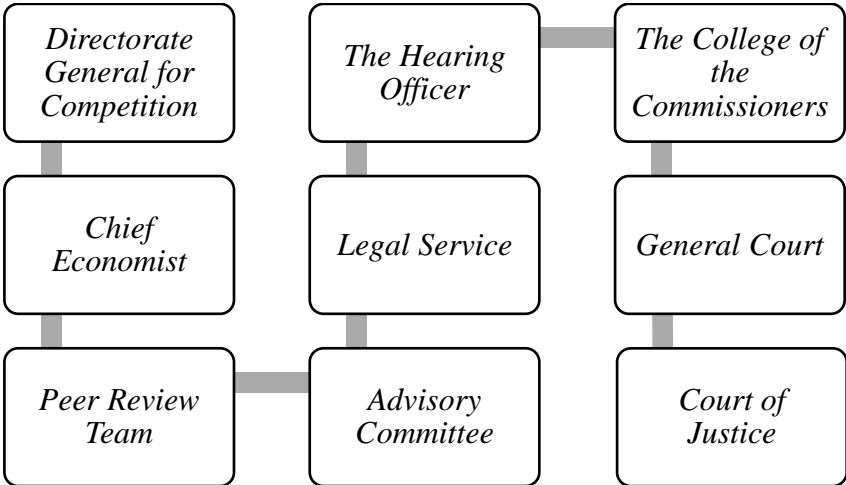


Figure 5. Institutions Included in the Competition Policy (EC, 2016).

Directorate General for Competition is the first actor, which enforces Articles 101 and 102 TFEU. Directorate General for Competition is divided into the Directorates (each of them has specific sectoral focus), and each of them consists from three to five units (they are responsible for the different competition instruments) (Jones and Sufirin, 2016). Moreover, there is one Directorate excluded from the others and works specifically with cartel agreements. Responsibility of the Directorate General for Competition is to prepare proposals for decisions, which the Commission has to make (Lianos, 2009). What is more, Directorate General for Competition has to make priorities among the all cases. It has to identify the cases, which are more likely to infringe the Competition Policy, and to have negative impact on consumers.

Before the final decision is made a lot of checks and balances are established, just to make sure that everything was taken into the account (Chirita, 2014). *Chief Economist* helps to evaluate economic effects, which would occur by the Commission’s actions in the certain cases. This person advices on the economic and econometric issues in the complex cases, when quantitative analysis is needed (Klaus Patel and Schweitzer, 2013). Decisions of this adviser are independent. Sometimes, *Peer Review Team* is used for the case. This team is not connected to the case, and it has to look through the all or just part of the case aspects. After that, there is held a discussion with the Peer Review Team, during which team

can suggest to work further on some aspects or drop them off the case. The recommendations are made for the Directorate General for Competition (Lianos, 2009).

The *Hearing Officer* acts independently and ensures that all procedural rights, between the Directorate General for Competition and parties, are respected. Hearing Officer makes recommendations, decisions or observations to the Competition Commissioner on the further process of the case (Lianos, 2009). Another duty of the Hearing Officer is to prepare a report to the College of Commissioners, where is written if all the procedural rights were respected during the process. But before this report reaches the College of Commissioners, its draft is reviewed by the *Legal Service*. Legal Service is responsible for the Commission's taken actions and decisions legality, which were made while solving the case (Klaus Patel and Schweitzer, 2013). What is more, the Legal Service is representing the Commission in the court. This service makes report to the President of the Commission and Commission Directorate. Its advices are vital during the case procedure, because Legal Service has to ensure that all the process and all decisions are compatible with the EU law and with the EU Competition Policy, and outcomes will not violate them in the future (Chirita, 2014).

Before the Commission adopts its decisions, there is one more step, where the Commission consults with the *Advisory Committee*, which is concluded from the authorities of the Member States (Jones and Sufrin, 2016). This step helps to improve the decisions and to acquaint representatives of the Member States with the drafts and laws, which were taken into account during the process. The advisory Committee proposes its opinion towards the case, and this written opinion is publicly published (Klaus Patel and Schweitzer, 2013). Responsibilities of the *College of the Commissioners* are to make sure that Articles 101 and 102 TFEU are applicable correctly during the case process and to assure that Member States do not influence actions of the Commission (Lianos, 2009). All these actors take actions, while the case is monitored, and are responsible to check all procedure aspects within the Commission action area.

There is one external body, which is involved too. It is Judicial review which checks all the Commission's adopted decisions (Jones and Sufrin, 2016). Judicial review is made from the Court of Justice and General Court. *General Court* reviews if Competition Rules are met in the cases and legality of the Commission decisions. Moreover, General Court assesses if the right rules are applied, while making an economic and technical assessments (Chirita, 2014). What is more, General Court reviews if all evidences are accurate and contain only relevant data, and if the conclusions are made from them. Meanwhile, it is in the *Court of Justice* power to review if fines and penalty payments, made by the Commission, are sufficient (Jones and Sufrin, 2016). The Court of Justice can reduce, increase or even cancel them. What is more, according to the Article 264 TFEU, the Court of Justice can void or partially annul the Commission's decisions. If this happens, then the Commission has to start over the investigation from the point, where the error arisen. All this system is confusing, but responsibilities are well divided

among professional and sufficient institutions. All of them have the right to influence and become a part of the Commission final decisions. There are many different actors, which work towards the fight with the anticompetitive behaviour. All of them have the same objectives, which they want to reach.

Competition Policy has many different objectives, which arisen during the long Competition Policy historical development. And it is necessary to turn to the purposes and main functions of the policy, to understand the necessity of it. Many different objectives of the EU Competition Policy can be excluded, but the main ones, according to the Whish (2009), are:

1. *Welfare*, in economic terms, means the measurement how well industry performs (Motta, 2004). It is marked as a total surplus, which is received by the consumers and producers. In the other words, welfare presents economy's capacity. How to count consumers' welfare? Basically, society feels a welfare when there is a perfect competition in the market, which leads to the lower prices, better quality and greater variety of productions (Lianos, 2009). This situation causes the perfect competition in the market, where the consumers decide what will be sold and for how much. Society's wealth is expanded by the production, which is made from the smallest cost and purchased for the smallest price (Jones and Sufrin, 2016). Specifically, consumers' welfare is counted by the differences among the price they want to pay for the goods or services and actual price they pay. Meanwhile, producers' surplus is counted as a profit, which they receive by selling goods or services (Chirita, 2014). From the existing situation, it is not hard to realise that consumer welfare and producer welfare are two opposite sides. Producers can increase their surplus by increasing the price, but it automatically reduces consumer welfare. According to the Motta (2004) consumer welfare is at the lowest point, when goods or services are sold in monopoly market. Consumer welfare is the most important objective of the EU Competition Policy, and Article 101(3) proves that. It allows agreements which lead to improved production, better distribution of goods, technical or economic progress, which let consumers to benefit from it. Moreover, according to the merger regulations, the Commission, by making a decision if the Competition Law is breached, has to take into account the interests of consumers. Advantages, of the technical and economic development, have to be compared with disadvantages of the agreements. Welfare is a very sensitive and important aspect, which the Commission has to evaluate while monitoring legacy of the agreements.

2. *Competitors protection*. This objective usually includes small and new enterprises, which are more vulnerable in the market. It helps to make balance between big companies, which have significant powerful position in the market, and the small or new companies (Klaus Patel and Schweitzer, 2013). Basically, this helps to protect companies from the large enterprises and their abuse of dominant position. Small or new companies receive an advantage to balance in the market, together with economically and financially strong companies. As Lanchidi (2010) states small and medium size firms are more dynamic and innovative in the EU, and it creates even higher necessity to protect these enterprises. Moreover, the Commission usually does not monitor merges, between small enterprises. On the other hand, this

objective brings contradiction, which goes against the fair competition idea. Because companies seek to work efficiently and become better than their competitors, which leads that some companies become bigger and stronger than others, and companies start to maintain the dominant position. Lanchidi (2010) marks it as the goal of all market players, and if small and new competitors are protected it affects resources allocation. They are allocated inefficiently and it makes market price higher.

3. *Market integration* is a political objective, which is not always coherent with economic welfare. European Union Competition Law prohibits price variation across borders (Jones and Sufrin, 2016). Competition Law increases the market integration and assures safe and fair trade between Member States. Local market becomes open for other EU Member States and vice versa. Motta (2004) states that market integration brings not only advantages. For example, if the same production is sold in Lithuania and Germany for the same price, while the average incomes are higher in Germany and lower in Lithuania, it means that, society in Germany receives higher welfare than in Lithuania. In this case, producer would earn more, if he would set the higher price in the Germany and would leave Lithuania's market. In this case, if all enterprises act like this, Competition Policy brings huge differences between markets of the Member States. Poorer countries, as Lithuania, would receive lower quality and lower price production, meanwhile countries with strong economy, such as Germany, would have high quality goods. As this example shows, prohibition of the price discrimination across the border is not all the time beneficial for economic welfare. However, Competition Policy sets rules that all enterprises should act and trade under the same tax system, laws and rules.

4. *Equity and fairness* oblige enterprises to act in a set way, with respect to competitors and customers (Jones and Sufrin, 2016). Fairness makes sure that, in the perfect competition situation, only efficient enterprises survive. All companies compete in the market and the most efficient stay in it (Lianos, 2009). But, to avoid possible dominant positions, Competition Policy protects small players in the market. What is more, fairness protects customers and do not let for dominant companies to set excessive prices in the market. Whish (2009) states that Commission is criticised because of the imposed penalties for the companies, which are efficient and gain dominant positions in the markets. There is light limit between what Commission calls dominant position and efficient enterprises (Article 102). From the economic approach, to protect price level is not all the time right objective. Because, if the company spends a lot of on the research and development, new technologies etc., they set higher prices. And if the customers want to pay that price for the product, there should not be any intervention according to the price changes (Jones and Sufrin, 2016). Another issue is fairness and equity in the marketplace. As an example, can be mentioned that, during the years, small shops were pushed out from the market by big supermarket chains, because they were able to buy more production from the manufacturers for the smaller price. As a result, supermarkets were able to sell production cheaper than small shops (Motta, 2004). From the point of fairness, it is not fair because small shops do not have

resources to compete with supermarkets and they should be protected. On the other hand, supermarkets work more efficiently and they increase the welfare of society, because market prices decrease. If supermarkets are forced to set prices as it was before, then social welfare would be negatively affected. But it is possible that, in the close future, when in the market will operate only supermarket chains, they will increase the prices and social welfare will be reduced. Equity in the marketplace ensures that all the companies have the same opportunities to take actions in it. Unfortunately, enterprises, which are more innovative or just simply luckier than others, will gain higher profits. However, the entry to the market is free and sooner or later new competitors will come, and it will cause the decrease of the prices. But if there is a situation, when legal monopoly exists in the market, high prices are justified by the Competition Policy authorities. The situation, between fairness and protection of competitors, makes dilemma for the Commission. Because there is no set clear line, between when enterprise works efficiently and fairly, and when its efficient work becomes a possible threat to breach competition in the market.

The EU Competition Policy is based in the Articles 101 and 102 of the Treaty on the Functioning of the European Union. These Articles set rules how market should be controlled, and which enterprises' behaviour are not tolerated and are controlled. Many different institutions are included to monitor suspicious enterprises behaviour. Competition Law has various objectives, which are protected. Not only the Commission is interested to set fair market rules, national authorities also intend to protect competitive behaviour in the markets. Maximisation of the efficiency and stability of the economy are main aims, which stand at the forehead of government's economic policy. If market fails to function normally, Competition Law helps to decrease the problem. Member States employ the Competition Policy, because it is one of the main tool to protect national market and increase economic growth.

2.3. The Main Features of the European Union Competition Policy

Competition Policy controls the actions of the enterprises, and that they would serve for the society welfare. Companies sell high quality goods and services for the lowest price possible. If not, then consumers have a right to go and buy goods or services from someone else. However, sometimes customers do not have this right, and this shows a possibility that companies work under unfair competition agreements. To reach higher profit enterprises make agreements or do actions, which are beyond the Competition Policy. This subchapter provides clear and detailed information about abuse of dominant position, state aid, cartel agreements and mergers, which are the main factors to disturb fair competition in the market (Figure 6).

| | | | |
|----------------------------|---------------------------------------|----------------------------------------|-------------------|
| Abuse of dominant position | Mergers | State aid | Cartel |
| •Article 102 TFEU | •Council Regulation (EC) No. 139/2004 | •Article 107 TFEU •Article 108 TFEU | •Article 101 TFEU |

Figure 6. Prevented anti-competitive behaviour by the EU Competition Policy (made by author, source: <http://ec.europa.eu/competition/consumers>).

It is necessary to understand two different agreements which are made to disturb competitiveness. Firstly, vertical agreements are the ones which are made between enterprises which operate in different production process stages (Motta, 2004). Usually these agreements are made between manufacturer and retailer to assure the price of the production or to be protected that manufacturer will not sell his production to the retailer's competitors. To fight more efficiently with the vertical agreements there was adopted Regulation which included that agreements do not affect competition if the supplier owns less than 30 percent of the market but if there is a possibility that actions taken by enterprises negatively influence the market and resale prices directly or indirectly are fixed then it is believed that agreement breached the Competition Policy (Jones and Sufirin, 2016). Secondly, horizontal agreements are totally different type agreements which are made between competitors in the same field. Enterprises can make an agreement on the prices or to share the market. As Motta (2004) states horizontal agreements restrict competition and reduce the welfare. On another hand, according to Whish (2009) vertical agreements are not always the bad thing especially when enterprises cooperate on research and development aspects. There is one legal provision to deal with all these agreements which are made for the different purposes and are expected to bring different outcomes. Article 101(1) prohibits all the actions which restricts the fair competition between Member States, and which distorts by any way competition in the internal market. This article also includes the possible ways to prohibit the fair competition by fixing prices, sharing the market, limiting the production, investment or technical development, applying different conditions for the partners in the internal market. There are three sectors (defence, agriculture and transport) excluded in which such agreements are not subjected to this prohibition. Article 101(2) states that all these agreements should "be automatically void" and Article 101(3) declares that there are exceptions if the agreement purpose is to increase the consumer welfare and if it improves customers' welfare by better production quality or investment in the new technologies. This Article shows that European Commission adopted a regulation which define agreements with research, development and technology improvement as not harmful but beneficial to the market and society. Meanwhile, Article 102 TFEU concerns mainly abuse of dominant position by one or more enterprises.

Abuse of a dominant position is the situation when major player is trying to eliminate its competitors from the market (European Commission, 2016a). Dominant position was described by the Court of Justice in Hoffmann-la Roche case (1979) that it is a situation, when enterprise is able act independently, because company receives market power. In this case, company do not have to adopt and follow the competitors action, because they do not influence the market. It is clear, that company is dominant when it owns mass part of the market and according to the jurisprudence companies which are not monopolist and owns around forty percentage of the market can be verified as a dominant one in the market (Jones and Sufrin, 2016). Company's dominant position in the market can be measured directly or indirectly. European Union law measures it indirectly with the Article 102 which declares that any taken actions to reduce the competition in the market and between Member States should be forbidden and stopped. This article also includes examples of possible ways to abuse a dominant position, such as: setting unfair trading terms, limitation of goods or services, markets or technical improvement, setting different conditions to the partners and irrelevant supplementary obligations. This list of possible ways to abuse dominant position is inexhaustible. To blame an enterprise for an anticompetitive behaviour in this case should be announced that company has a dominant position in the market and that it is involve in an abuse behaviour (Motta, 2004). Abusive behaviour could be realised as price discrimination for the different Member States, also it can be realised as set too high or too low price. According to the European Commission (2016b) to dominate in the market it is not illegal because this company is competing with others according to the competition rules unless it starts to use its position to burden situation for its competitors and its distorting competition in the market. European Union law does not penalize the companies which are in the dominant position just when it abuses the dominant position. To clarify this idea companies can become strong, dominant and get the market power by legal actions, such as investment, marketing, innovation and usage of new technologies. What is more, these actions create economic efficiency and society welfare. The Commission does not seek to punish and weaken the strong and efficient companies which invest in new technologies, research and developments and become stronger than its competitors. According to Motta (2004) Competition Policy for the abuse of the dominant position does not imply equally for all companies. Usually if small firms act aggressive and use anticompetitive actions they would not be prosecuted because they do not own majority of the market. But if a company which has market power would act like this then the Commission has a right to investigate the situation in the market. All Article 102 TFEU enforcement details are in Regulation 1/2003 (EUR-Lex, 2016a). The Commission has a right to require the information from the enterprises, come to the company, examine and take records of the documents needed and ask the questions to the staff and representatives which are related with the case. After that the Commission decides to close the case or investigate it deeper.

Mergers and other permanent or temporary agreements between companies which let them to enlarge market and benefit for consumers (European Commission, 2016a). Mergers are regulated by the Council Regulation (EC) No. 139/2004 (EUR-Lex, 2016b). Why the Commission controls the mergers? This regulation examines mergers that they would not reduce the competition in the common market. Simply, they do so to make sure that enterprises' merge does not make it dominant and competition in the market is not distorted. There are set clear criteria by which companies would be reviewed. Firstly, if merging companies work worldwide and their turnover are over 5000 million euros. Secondly, if merging enterprises work in European Union and two of the companies' turnover is more than 250 million euros. Thirdly, if companies work worldwide and their overall profit is more than 2500 million euros and overall profit is bigger than 100 million euros in at least three Member States. Lastly, if companies are working just in the EU and two of the companies receives more than 100 million euro profit, and at least two companies reach profit in three countries more than 25 million euro (European Commission, 2016c). Smaller mergers usually are controlled by the Member States' authorities. The procedural process for mergers is quite long because enterprises have to get authorisation from the Commission for this.

Whole procedural framework of merger control starts when the companies decide to merge in the EU dimension. They have to report this decision during one week to the Commission. If merging companies are not working in the same market and they own a small part of it there is no rising problems for competition disorder and these mergers are overviewed by simplified procedure (Jones and Sufrin, 2016). Full investigation is made when companies work in the same market and they together share 15 percentage of the market or if they operate in different markets and they together combine 25 percentage of the market (European Commission, 2016c). After the notification about the merge the Commission has 25 days for the first investigation after which merger will be allowed or second investigation round will be opened if the merger trigger any competition concerns. Second phase takes a longer period during which positive and negative effects of the merge are analysed and if positive side (for example it would increase consumers' welfare) outweigh negative one then the merge could be allowed. After the second investigation, the Commission can decide if merger allowed, prohibited or allowed with some conditions and remedies (Jones and Sufrin, 2016). If the second phase starts, then the Commission has to make a decision during 90 days from the beginning of it. Timing is one of the most important features in the merger control, because if the Commission is not able to make a decision quickly it will be too costly for the companies. If the merger is approved companies need to reorganised and change their structure and if no they need to return to its original working framework. The Commission does not deal with all merger cases. For example, decisions related to subsidiarity principle are taken by the national authorities as well as the case when small companies are merging and it interest only national level (Jones and Sufrin, 2016). Article 2(3) in the Merger Regulation describes that merger is forbidden when it receives

a dominant position in the market. Motta (2004) argues that even if merge does not create a dominant position it can still decrease a welfare especially if the market is small and there are not many companies competing in it which would lead to the higher price and reduced competition.

State aid is a financial support for enterprises from Member State government. This support should not prevent fair competition or harm the economy (European Commission, 2016a). But sometimes situation is different because the state aid gives some advantages for sectors over others Member States' sectors and it damage competition and trade in internal market. The Commission has to assure that the state aid is given only when it has a wider public interest, such as a welfare of society and increasing economy. State aid is defined in the Articles 107 and 108 of the Treaty in the Functioning of the European Union (European Commission, 2016d). This article declares that state aid is breaching the law, when government supports only specific company or type of goods. In this case, companies have advantage over their competitors in the market. Meanwhile, this state aid intensify the competition between other companies or they are forced to leave the market. State aid in general is when the aid is provided by the state or other state resources to the company which by the aid receives an advantage over its competitors and it distort competition or trade. Member States cannot give state aid to the companies if they did not get permission from the Commission (Jones and Sufrin, 2016). State aids can be received in a form of grants, subsidies, tax exemption, loans with favourable interest rates, guarantees, write off of the debts, export assistance etc. The Commission has to monitor four main aspects which are mentioned in the Article 107(3) TFEU that State Aid would not breach fair competition from the legal point of view. Firstly, it should be a transfer of government funds (could be direct money transfer or indirect government fund relocation). Secondly, State Aid must ensure the economic advantage. Thirdly, State Aid has to be selective and conducted to one company not all. Lastly, there should be recognised impact for the Competition and Trade not only between local companies but also in trade between two or more Member States. If state aid is characterized by these criterions, European Commission can state that it is a State Aid and start an investigation if it was proposed according to the law rules.

The framework of the Commission work to fight with unfair state aids is very flexible and varies depending on the case. Usually the Commission gets a complain about the state aid, then the Commission communicate with the Member States' authorities, request the information needed and then decides if the state aid was harmful for the competition or not (Lianos, 2009). If yes, then it can take the case further and open a formal investigation. If investigation shows that the harm was made for the competitors or the market, then the Commission may require to return all the aid which enterprise received. The complains about unfair state aid could be submitted not older than 10 years (Chirita, 2014). The Commission has the exclusive competence to determine if the state aid is compatible or not with internal market. According to the European Commission (2016d) the Commission usually approves

around 85 percentage of the state aids when they get a notification before the Member States' governments grant it. As other features of the Competition Policy have exceptions, state aid has it as well. There are two exceptions: General Block Exemption Regulation (GBER) and De minimis Regulation (European Commission, 2016d). Member States do not need to get an approval from the Commission if the state aid goes under the General Block Exemption Regulation. There is excluded certain type projects and its aid form which can go under GBER. De minimis Regulation sets the rule for the size of aid which cannot exceed 200 thousand euros during three years. If these exceptions are reached, then the Commission cannot impose fines or stop the state aid to the certain enterprise or sector.

Cartels are agreements which restrict fair competition because companies make an agreement to stop competing with each other (Klaus Patel and Schweitzer, 2013). In other words, it is anti-competitive agreements by which enterprises set their rules and they fix prices, share the market or limit the production (European Commission, 2016e). Cartels are controlled under the Article 101 of the Treaty on the Functioning of the European Union. It states that any type of agreements between companies are forbidden if they are made to reduce competition. Cartel agreements are horizontal ones which are made between enterprises which operates in the same field. Cartels are illegal actions by which consumers' welfare is reduced because usually they pay more and get lower quality production (Jones and Sufirin, 2016). Companies which are working in the same market and the same consumers are using their production that is why they make agreements to join forces and create cartel which is quite hard to find out for competition authorities. The Commission applies the lenience policy for the cartel agreements and suggest for companies which are involved in the cartel agreements to propose evidence of such agreement and the first company to do so will not be imposed a fine or it will be reduced (Chirita, 2014). The enterprise which is the first one to announce about the cartel gets an immunity and will not get a fine meanwhile if the enterprise is the second one which tells about the cartel agreement will get a reduced fine. There are agreements which are allowed by the Commission because they effect consumers more positively than negatively, are not made between competitors in the same market, are made between competitors but they share a small part of the market or this agreement was necessary to improve goods or services (Lianos, 2009). For example, agreements which main goals are to improve research and development or improve technologies are not illegal because they bring more positive effect to the community than negative. These type agreements are made because technology development usually is very costly for one company, but if company can afford to do this by itself it would increase its competitiveness in the market. Moreover, according to the European Commission (2016e) joint production, sales and purchasing agreements might be legal too. On the other hand, agreements which are made to fix prices, to share market, to limit production or fix resale prices are illegal and forbidden in the European Union.

The EC also monitors *liberalisation* level in the Member States. It is a tool to prevent unfair advantages in the sectors, which were controlled by the monopolies. The main sectors, which are monitored, are energy, telecommunication, postal services, water and transport (European Commission, 2016a). These industries are recognised as the oldest one and, mostly in all countries, they were controlled by the state monopolies. Liberalisation assures that these markets are open for fair competition and competitors are able to enter it.

All in all, this chapter proposes clear idea, how the EU Competition Law developed since its beginning. From the unclear idea about controlling competition during Shuman speech until its realisation in the TFEU. A lot of actions and decisions were made, but all of them were crucial for the Competition Law to become effective and well developed, with the clear objectives of it. Social welfare, protection of small companies over the financially strong enterprise, market integration, equity and fairness are set as the main objectives of the Competition Law. Even though, Competition Law identifies them quite clearly, but exceptions appear in this law too. There is slight limit between the fair competition and protection of smaller enterprises, and the Commission has to decide whether the law was breached or not. Even though the Commission has the last word during the cases, but there are included many different institutions, which can suggest and propose their opinion for the Commission. The EC monitors Competition Law and its main features, which can be used to breach the law. The dominant position, state aid, cartel agreements and mergers can influence economy and harm situation in the market. There are advantages and disadvantages of it, and the EC has to measure, if it is a behaviour which has more positive or negative effect.

3. CARTEL EFFECTS EVALUATION FOR THE LITHUANIA'S ECONOMY

The theoretical information shows that cartels can have both positive and negative consequences, and to validate them it is necessary to use economic models and statistics. Cartel is a complex object, which is difficult to measure. That is why economists do not suggest one common economic model. Each case is defined as specific, and various criteria have to be taken into account, while validating cartel effects. This chapter proposes information about last decade cartels and their key features in Lithuania. After that, three cartel cases studies of Lithuania are analysed, and their economic positive and negative impacts on the Lithuania's economy are validated.

3.1. Substantiation of Research Methods

To analyse influence of the cartel on the national economy, it is necessary to look at it from both positive and negative perspectives. The method, to measure the economic impact, includes different methodologies, theoretical models and factors, which are mentioned by the Motta (2004), Nielsen (2011), Dierx et al. (2015) and Bruneckiene et al. (2015). However, every case is defined as specific, and it is impossible to create a common model, to validate effects of cartel, for all cases. The main reason for this is that, cartels have different objectives. Main objectives are to fix the price, share the market, control output, change information, coordinate action, to squeeze out competitors from the market or to receive dominant position (OECD, 2016). Companies concentrate on the one aspect or combine more than one of them, when cartel is created. Each objective differently influences the economy, it is believed that the most harmful cartel is price fixing. It influences not only national economy, but also reduces social welfare, because customers have to pay higher price than before, for the same services or goods (Moran and Novak, 2009).

Another important aspect is market, because it influences the size of cartel effects for the national economy. Features, such as market capacity for newcomers, number of the undertakings and enterprise with majority of the market share, are important aspects for the successful cartel duration (Lanchidi, 2010). Cartel type is also one of the specificities, because of which the effect of the cartel, for the national economy, differs. Cartels can be horizontal or vertical, directly influence customers or producers (Bruneckiene et. al., 2015). Because of all the aspects, it is difficult to measure the total impact of the cartel on the economy. While validating the effects of the cartel all three aspects (objectives, type, market) have to be taken into account.

Secondary sources are analysed, to examine the effects of the cartel. Firstly, to get familiar with the cartel situation in Lithuania, there are proposed primary factors and statistics about cartels, their objectives and types. It lets to understand main reasons why cartels are created in Lithuania, and which is the vital sector where anticompetitive agreements frequently appear. For this part, statistical data is

used from the official Lithuania’s statistics department and cartel cases are analysed from the Competition Council of the Republic of Lithuania website.

Another part of the analysis consists of analysis of case law. Three different cases are validated and assessment their effects on the competitors, customers and national economy. Scholars Bruneckiene et al. (2015), OECD (2016), Motta (2004) suggest to use integrated model, to validate negative and positive effects of cartel and measure the balance of their impacts. The model has to be flexible, because each cartel case is specific and brings different outcomes. Bruneckiene’s et al. (2015) proposed model is used for validation part (Figure 7). What is more, Motta’s model is used to assess the social welfare loss (Figure 3).

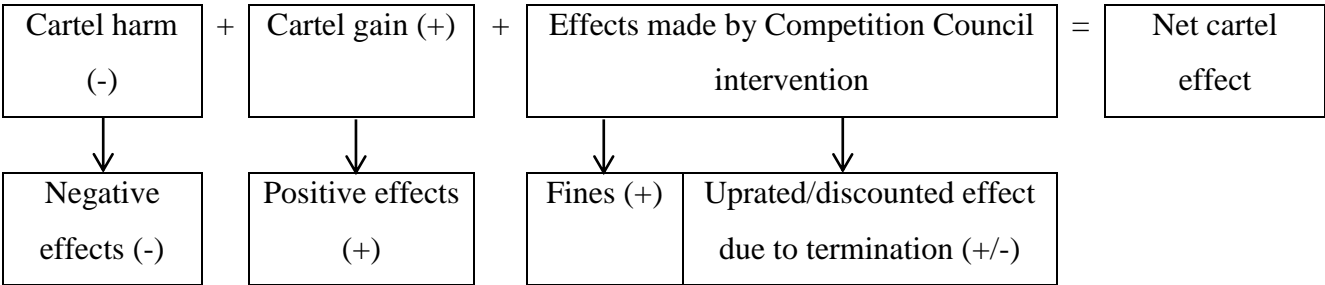


Figure 7. Validation of cartel effects (source: Bruneckiene et al., 2015).

This model includes positive and negative effects of cartel and intervention of the Competition Council. Scholars suggest leading indicators, which show the positive and negative impact of the cartels (Table 5). What is more, paid fines are indicated as a positive effect for the national economy. However, the fine depends on the duration, and Competition Council often reduce or increase it. Reduced fine is recognised as a negative effect, meanwhile increased fine is a positive effect for the national economy. The sum of all effects show the real, net cartel effect for the economy.

Table 5. Indicators to Validate the Effects of the Cartel on the National Economy (source: Bruneckiene et al., 2015).

| Indicators of the negative effect | Indicators of the positive effect |
|-----------------------------------|-----------------------------------|
| Damage caused by overcharges | Additional profits |
| Unpaid taxes | Paid taxes |
| Loss of profits | Paid fines |
| Lost and/or not produced GDP | |

They list seven leading indicators, which are affected by the cartel agreements, and influence the national economy changes. Negative effect includes aspects such as overcharge, lost taxes, profits or additional cost. Meanwhile, the positive effect is validated by increased taxes and fines, which

companies have to pay for preventing competition in the market. However, all of these indicators cannot be included in all the cases, because not all of the overcharge a production or reduce the output. Cases differ because they can have direct and indirect effects for customers, purchasers or competitors (Bruneckiene et al., 2015). Authors suggest to include prevented after-effect indicator as a positive effect, however in this project possible future outcomes are not assessed.

To sum up, it is necessary to rely on the secondary documents and statistical data, while validating the effects of the cartel. Cases and statistical data are crucial, to understand the stimulus and specificities of the cartels and their outcomes. They are the principal sources to validate the impact of the cartels and to understand the reasons why companies cooperated and agree to breach the law. The model to validate the net cartel effect has to be flexible, because there is no universal method, which is suitable for all cases.

3.2. Analysis of Cartel Formation in Lithuania

Systemized analyses show that usually cartels have adverse effects, but sometimes can bring a positive impact. Competition Council of the Republic of Lithuania is responsible to monitor companies’ compliance with the EU Competition Policy. Competition authorities start to investigate behaviours of the enterprises when they get complaints, notifications, leniency or when they have suspicions (Figure 8).

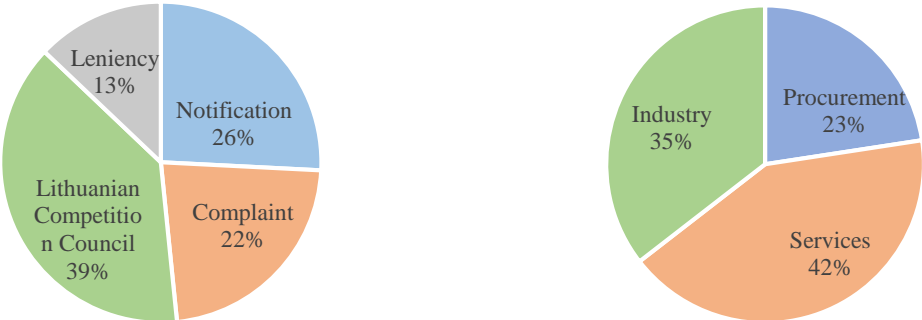


Figure 8. Lithuanian Competition Council Anticompetitive Behaviour Investigations (source: <https://kt.gov.lt/>).

The first chart indicates the reasons why Competition Council started to investigate, if undertakings did not create cartels during 2005-2015. 39% of all detected cartels are a result of the Competition authorities work. Notifications are cases when other institutions’ authorities give information about possible coordinated actions in the specific markets. Notification is the second most common source for successful detection of cartels creation in Lithuania. 22% cartels are detected because of the complaints from the competitors, which are not involved in the cartel. Only 13% of cases

are started because companies use leniency program. This program gives an immunity for the company, which cheats on the members of the cartel and proposes information about the anticompetitive behaviour. This is a relatively small number of leniencies, because in the EU Leniency is defined as one of the most fortunate and resourceful way to find out about the cartel creation. All in all, Lithuanian Competition Council detects only 39% of all cartels by themselves, and 61% of them are identified because of extraneous factors. Is it possible to define if competition authorities in Lithuania work efficiently? With a help from others yes, but if other institutions or companies would not propose information about cartels, when there would be undisclosed 19 cases. The second chart shows, how creation of the cartel is distributed between industries, services and procurements in Lithuania. Procurements take the smallest percentage part of all cartel nature, but it is a relatively high number. Because it indicates one particular area, where cartels are most frequent to occur. During last decade, most of the cartels were formatted in the service sector, it took 42% of all cartels in 2005-2015, in Lithuania.

For the last decade 31 cartel agreements were detected, which breached the law (Figure 9).

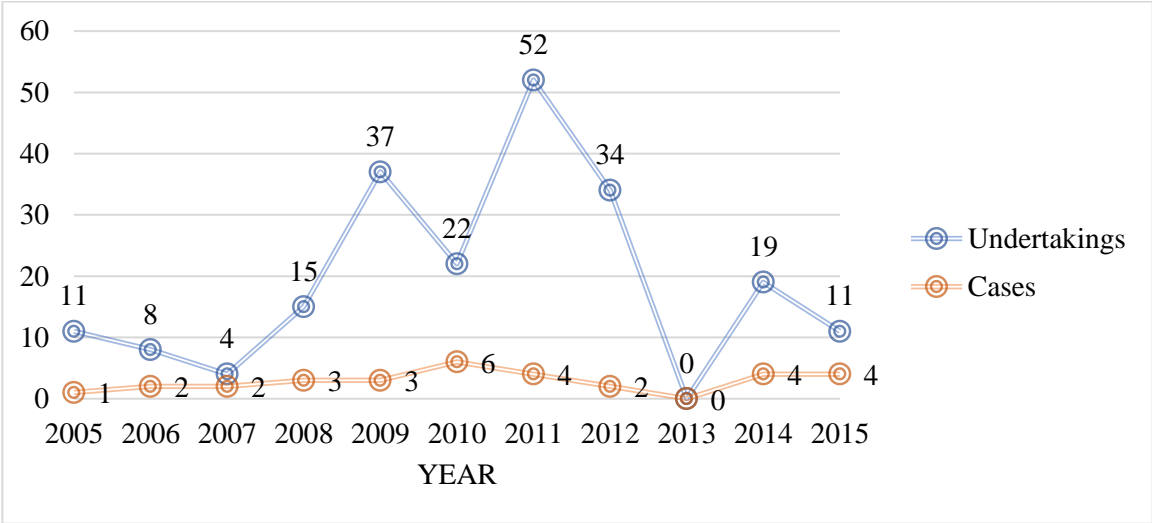


Figure 9. Cartel Agreements and Number of Companies Involved in it (source: <http://www.stat.gov.lt/>).

The average detection of the cartel is three cartels per year. During ten years 213 undertakings (with associations included) were involved in the cartels. It shows that approximately seven companies are involved in one cartel agreement. This number can be distorted by 2011 and 2012 data, because there were 52 companies involved in only four cartels and 34 companies in two cartels (relatively). These years indicate the biggest cartel agreements, when there were involved the most enterprises. From 2005 until 2010 the number of cartels was steadily increasing, and in the 2010 year, it reached the highest point during the ten years. This growth can be explained by the existed economic crisis in the Europe. Enterprises were in the tension situation. At that point, consumption decreased, and companies did not

have the incomes to maintain successful and beneficial work. Because of the International Economic Crisis companies were eager to collaborate with their competitors. From 2010 until 2013 the number, of disclosed cartels, was decreasing and reached the lowest point in the 2013 year. In 2013 Lithuanian Competition Council was monitoring some cases, however, there were not enough evidences to prove the anticompetitive behaviour, and cases were closed. There are two possible explanations why in 2013 any cartel was detected. There did not exist cartel agreement or Lithuanian Competition Council worked inefficiently. Last two years showed the steady trend: 4 cartel agreements detected per year. It is difficult to determine if Competition Authorities work efficiently or not, because cartel agreements are illegal activities, which enterprises try to hide. Nobody knows how many cartel agreements exist at the moment and if detection of 4 cartels is relatively low or high number.

From the previous graph, it is hard to understand the trend of enterprises involvement in the cartels. Figure 10 proposes linear trend graph.

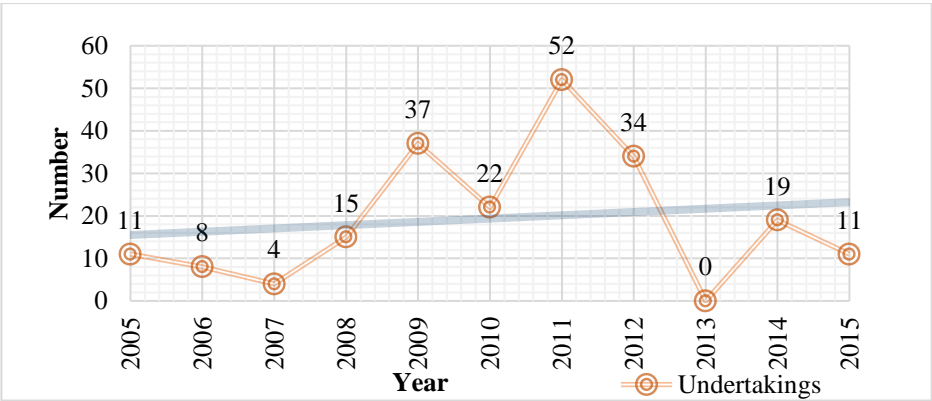


Figure 10. Linear Trend of Companies’ Involvement in the Cartels (source: <http://www.stat.gov.lt/>).

The blue line indicates that, in Lithuania exist growing trend of enterprises involvement in the cartels. With the help of a linear graph, it is possible to predict that next year more companies will be included in the anticompetitive behaviour. The increasing number, of firms’ involvement in the cartels, suggests that companies do not reach the desired share of the market or profit. They see cartels as a possibility to increase their welfare. This is not the only reason, Economic Crisis in the Europe and Lithuania influenced behaviour of the undertakings too. One more aspect, which stimulate creation of the cartel, according to Buitter and Sibert (2016), is the possible future economic crisis. Authors believe that it will hit the Europe in 2017, and companies, in order to avoid the drastic fall of profits, seek to cooperate in advance. All the reasons, which are mentioned in Table 3, also stimulate companies to create the cartels. One more important aspect is to examine when the cartels were formatted in Lithuania (Figure 11).

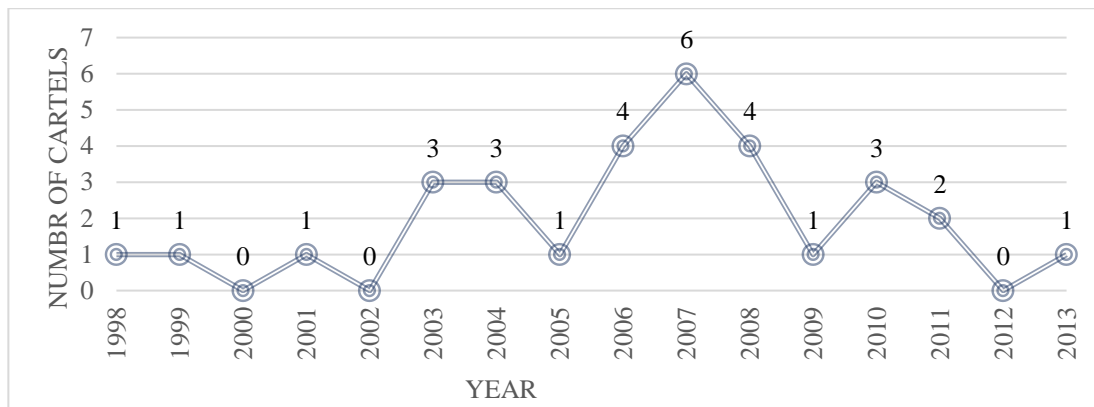


Figure 11. Cartel Formation in Lithuania (source: <http://www.stat.gov.lt/>).

Cartels, which were detected during 2005-2015, were formatted in 1998 and were effective until 2013. This situation proposes the conclusion that, Lithuanian Competition Council is not able to detect cartels at the same year as it was formatted. Because of that, each cartel effects, negatively or positively, national economy and social welfare. Graph 10 indicates that, the highest number of cartels were created during 2006-2008, and the peak was reached in 2007. The cause can be the financial crisis in Europe, which started in 2007-2008. What is more, the creation of the cartels can be stimulated, because of the increased cost, growing inflation rate and international trade imbalance in the Europe. There were created relatively many cartels in 2010, and at that time Great Recession was in whole Europe, which intensified the situation for the businesses. The overview of cartels formation suggests that, there is a small number of them in Lithuania comparing with the European Union. But for the comparison many aspects should be taken into account as countries size, a number of the companies in the market, their competitiveness, etc.

The average duration of the cartel in Lithuania is 37,5 months (Prefix 3). There are six cartels which are defined as 0-month length, because companies participated in procurement. They shared information about the prices and other details of the proposals. Procurements last for one day, and announcements about them are made two months in advance. That is why, Lithuanian Competition Council decides not to take into account the time frame in these cases. The longest cartel lasted for 156 months, it was formatted in 1998 and stopped in 2011. This cartel was created in Klaipeda city, in the shipping services, where companies fixed the prices.

To fight the anticompetitive behaviour, Lithuanian Competition Council imposes fines for the cartel members. The system of fines in Lithuania conforms to the EU Competition fine system (Prefix 1). Usually, the Lithuanian Competition Council decisions are appealed, and the court has to decide if the company breached the law or not (Competition Council of The Republic of Lithuania, 2016). Most often companies receive fines, which are equal to the 10% of companies' turnover. The size of fines imposed in Lithuania are shown in Figure 12.

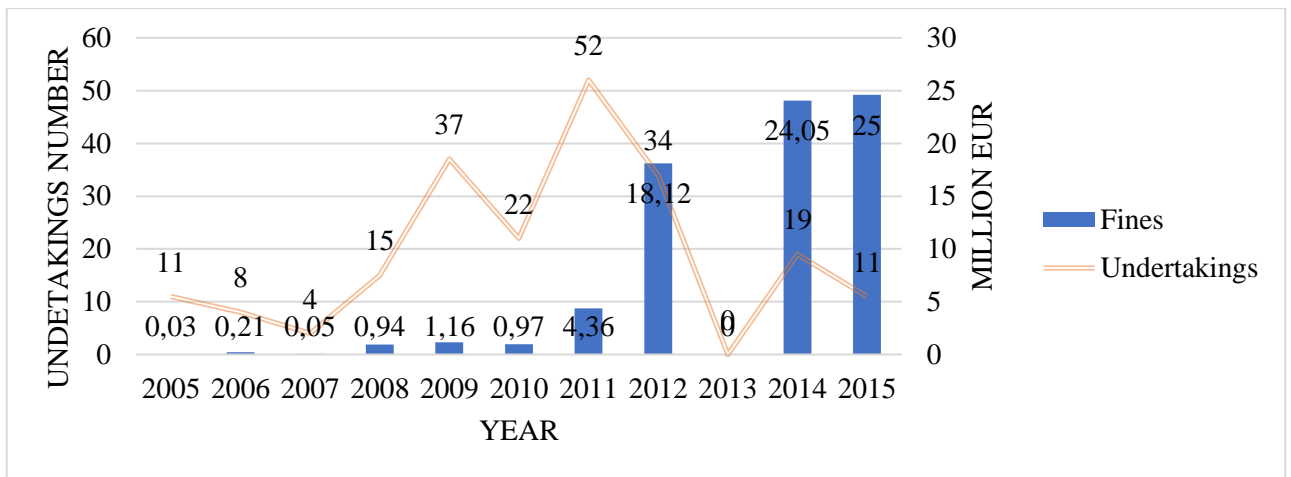


Figure 12. Fines Imposed in Lithuania for Cartel Creation (source: <http://www.stat.gov.lt/>).

During the last decade, the Lithuanian Competition Council imposed fines, which reached in total 74.89 million euros for 213 enterprises. The average of the fine was 0.35 million euro per company. From 2005 till 2015 years, fines were constantly increasing. This trend does not present that, there were involved more businesses in the anticompetitive behaviour with each year. Surprisingly, 52 companies were included in the four cartels in 2011. It was the highest involvement level during ten, but the average fine per company reached only 0.084 million euros. Meanwhile, last year fine's size per undertaking was the highest, and reached 2.27 million euros. From this statistics data, it is possible to conclude that, only small companies created cartels from 2005, because their income were not relatively high. Fines were increasing in Lithuania, which can testify that, bigger enterprises with higher incomes are involved in the cartels. The breaking point, between high and low fines, is 2011 year. Because, until this time penalties were less than 1 million euros (except 2009), and after years 2011 it increased significantly.

While creating cartels, undertakings have different goals and objectives. Some of them can bring positive effect, and some of them can bring negative effect. Figure 13 indicates the main reasons of creation of the cartels in Lithuania.

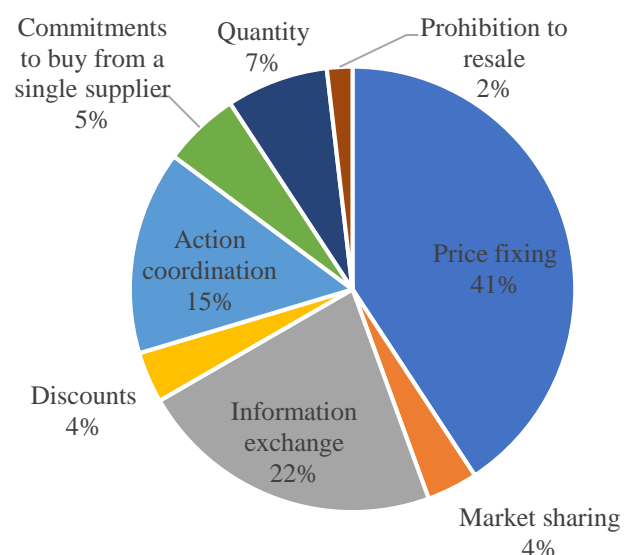


Figure 13. The Objectives of Cartels in Lithuania During 2005-2015 (source: <https://kt.gov.lt/>).

As it was mentioned in the second part of the thesis, most of the companies are seeking to fix the price, reduce output or share the market by creating cartels. In Lithuania, most of the cartels were designed to set the price. It is one of the most harmful cartel type for the social welfare, because customers have to pay more than before for the same product. The price is increased not because of the production higher quality or investment in new technologies, but because undertakings reduce the output. Second most frequent cartel creation was information exchange, during which competitors can monitor each other profit, production, prices or market size. 15% took action coordination, when enterprises agree to act together and to take the same actions or decisions. Quantity and market sharing were not popular in Lithuania. Economists declare that, market sharing is one of the most frequent cartel creation reasons in Europe, however, it is not confirmed in Lithuania. All cartels in Lithuania during 2005-2015 had negative effects, because there was not detected a case, which would have objective to invest, improve technologies or cooperate for research and innovation.

According to the Salin, Vejanovski, Dick, Moran and Novak creation of the cartel increases investments. Because companies seek to improve technologies and invest in the research and development. From 2005 until 2015, investment level in Lithuania is demonstrated in the Prefix 4. This graph shows that companies invested the most in 2007. Figure 10 indicates that six cartels were formatted in that year. It is the highest number of created cartels during the last decade. It is possible to assume that, cartels influence increasing investment level, but investments in 2010 reached the lowest point in Lithuania. At that time four new cartels were created, and it is relatively high number comparing to the average level of cartel creation in Lithuania. From 2010 till 2012 the number of cartels decreased, but the investment level, during that period, was steadily increasing. From these two graphs, it is possible to assume that, cartels in Lithuania were created not for the growth of customer welfare or production improvement Because established cartels did not positively correlate with investment level (Figure 14).

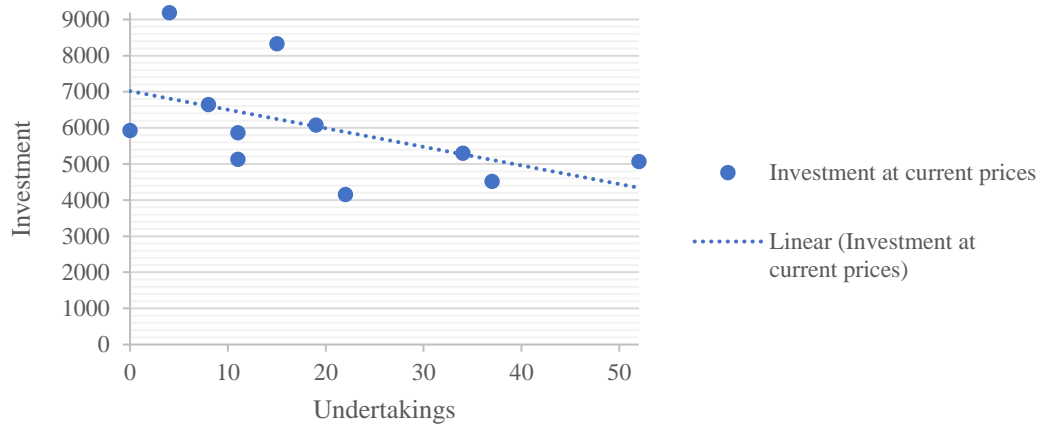


Figure 14. Correlation Between the Investment Level and the Number of Undertakings Involved in the Cartels (source: <http://www.stat.gov.lt/>).

This linear correlation graph proves that, investment level did not increase because of increased enterprises' involvement in the cartels. Both indicators do not depend from each other. Economists believe that cartels positively affect employment level, because companies reduce the risk of bankruptcy. On the other hand, cartels reduce competition and output, which leads that enterprises can receive the same incomes with fewer employees. Lithuania's employment level is illustrated in the Prefix 5. Employment level did not change drastically during ten years in Lithuania. However, the highest employment level was reached in 2009 and in the next year it decreased by 16%, and the lowest point was reached in 2011. In 2009 and 2011 there were the highest number of undertakings involved in the cartels. Correlation graph, between employment level and companies involved in the cartels, shows adverse changes between both indicators (Prefix 6). Because of that, it is possible to state that, cartels did not influence employment level in Lithuania. As Bruneckiene et al. (2015) and Motta (2004) state, cartels can affect GDP (Figure 15).

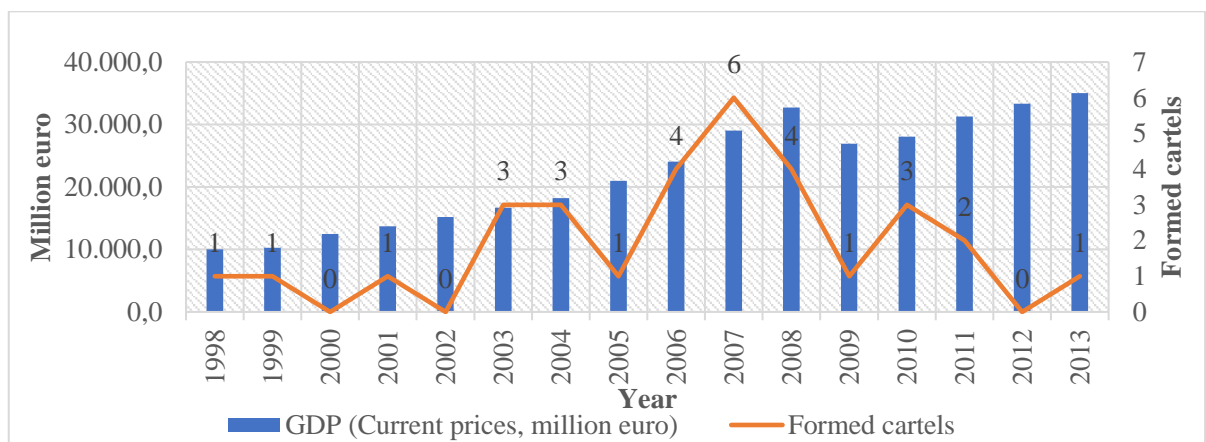


Figure 15. The dynamics of GDP and formed cartels (source: <http://www.stat.gov.lt/>).

These graphs reveal growing tendency of GDP and variation of the number of cartels. Steadily increasing GDP was until 2008, but the existed economic crisis reduced it in 2009. Number of created cartels were increasing until 2007, and after that the number of it was decreasing. Both indicators were hanging similarly, and in 2007, when GDP growth was the highest comparing to the previous year, 6 cartels were created. It concludes that companies in Lithuania cooperate and create illegal agreements during economic growth. It is possible to predict that creation of cartel will increase because of the GDP constant growth.

To sum up, statistical data shows that cartels occur in the service sectors in Lithuania. Cartels in procurement are frequent, and Lithuania's Competition Council should give particular attention to that. Because they last for a short period and it is harder to detect them. The Competition authorities initiated an investigation for the 39% of the cartel cases. However, 61% of them have been exposed, because of the help from the other institutions and companies. The leniency program and suggested immunity for the companies are not an effective strategy in Lithuania, for detecting anticompetitive behaviour. Because only 4 cartels, during ten years, were stopped with the leniency programme. Economic crisis in 2008 had an impact for increasing number of the cartels in Lithuania. Unfortunately, the number of involved undertakings in the cartels, is increasing and has a growing trend. Over the ten years imposed fines, for the cartel members, significantly increased. Higher fines indicate that cartels are created by the companies which receive high incomes. Most companies are willing to profit by setting higher prices and decreasing the output. Companies stop to fight over the prices, to receive more customers and bigger market share, and they start to coordinate actions with competitors. This situation negatively influence customers and their welfare, because they have to pay more for the same goods than before. As some scientists propose that, cartels can have a positive effect for society, because they cooperate to improve production quality. However, investment or employment level do not positively correlate with the number of the undertakings involved in the cartels. It means that cartels were not created for the social welfare improvement in Lithuania.

3.3. Validation of Specific Cartel Cases and Their Effects for National Economy

This subchapter proposes three different cases and their effects for the national economy. Validation has limitations, because cases are very specific and companies keep their private information as a commercial secret. Used data, to measure effects of the cartels, is taken from the national statistical department and cartels cases. Each case is estimated within the different time frame, depending on the year, when cartel was formatted and how long it lasted.

First case. Last year, cartel agreement was detected in the biofuel market. It was formatted in 2011 and continued for 28 months, until 2013. Two companies agreed that "Vilniaus energija" will buy exact

quantity of biofuel from First Opportunity OU, for a set price. This cartel agreement is measured as a vertical agreement, because manufacturer and producer made an agreement. This cartel, according to the Lithuanian Competition Council, breached national Competition Law Article 5(1.1), which is based on the EU Competition Law Article 101. Geographical territory of the cartel was indicated as a domestic, Vilnius region. Other companies, which were included in the same market, could not successfully compete and propose biofuel for “Vilniaus energija”. The main competitors, which sell biofuel in this market were: “Bionovus”, “Timbex”, “BOEN Lietuva”, “Baltwood”, “Fortum ekosiluma”, “Grasta”, “Biovoice”, “Fortex Energy”, “Uzmojai su garantijomis” and “Keratas” (these were the main competitors, but there were more which shared less than 1% of the market) (Competition Council of the Republic of Lithuania, 2015a).

According to the Competition Council, First Opportunity OU had a dominant position in the market and shared more than 60% of the market. By creating a cartel, company breached the law. Its anticompetitive behaviour burden competitors’ situation, because they gained less than 30% of the market all together. In 2011 new competitor (“Timbex”) entered the market, and until 2013 it reached 7% of the market. However, First Opportunity OU market share did not decrease, it means that its market share was taken from the enterprises, which were gaining small part of the market. “Fortum ekosiluma” and “Grasta” experienced the biggest market loss (Prefix 7) (Competition Council of the Republic of Lithuania, 2015a).

First Opportunity OU created cartel with “Vilniaus energija”, because “Vilniaus energija” was the biggest purchaser of biofuel in the market. Its market share was 53%-58% during 2011-2013. This deal was significant for all competitors, because it was made between two companies, which had dominant positions. Both companies agreed on the price for which “Vilniaus energija” will buy biofuel (Competition Council of the Republic of Lithuania, 2015a). According to the EC, if two companies own more than 40% of the market, they are likely to have a dominant position. Any agreement made with another company on preferable prices has a negative effect for competitors. During this period, the biofuel price was changing, and it is illustrated in Figure 16.

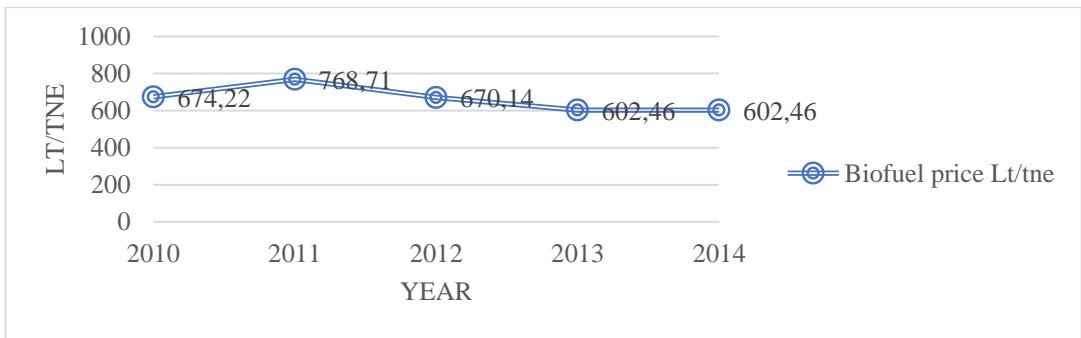


Figure 16. Biofuel Price During 2010-2014 in Lithuania, Lt/tne (made by author using data from National Commission for Energy Control and Prices).

This graph indicates that, during the cartel creation in 2011-2013, biofuel price increased notably in 2011 (overcharge 14%). What is more, the decrease of price was in 2013 and 2014, at the time when this cartel was stopped (at the beginning of 2013) (Competition Council of the Republic of Lithuania, 2015a). The increase of the market price, can be the outcome of the cartel creation. Whereas, one of the biggest buyer was committed to buy biofuel from one supplier. Therefore, other biofuel providers had to raise the prices, because they lost a possibility to sell its production to the “Vilniaus energija”. It means that social welfare was indirectly reduced by this cartel. Customers of the companies, which were not involved in the cartel, had to pay higher prices than in 2010.

Affected objects, of this cartel creation, were: foregone profit of the companies, which did not have a chance to sell its production for the “Vilniaus energija”. Reduced taxes, because First Opportunity OU received smaller profit, for the same amount of biofuel, than before. Increased welfare of “Vilniaus energija”, because it was spending less than before for the same amount of the biofuel. Fines, which were paid by both companies included in the cartel creation (“Vilniaus energija” 19 004 000 Eur and First Opportunity OU 3 529 000 Eur) (Competition Council of the Republic of Lithuania, 2015a).

The gross annual income of the First Opportunity OU was 27 761 816 Eur in 2011 and 42 532 534,02 Eur in 2014. The gross annual income of the “Vilniaus energija” was 191 215 929 Eur in 2011 and 190 006 210,5 Eur in 2014 (Competition Council of the Republic of Lithuania, 2016). It is impossible to compare the exact changes of each year incomes, because companies keep this information as a commercial secret. However, even income information of two years, 2011 (cartel existed) and 2014 (cartel stopped), shows significant information (Competition Council of the Republic of Lithuania, 2015a). First Opportunity OU benefits increased, when there was no cartel creation, and “Vilniaus energija” vice versa.

This case is exclusive, because customers cannot choose another supplier of heating in Vilnius region. Customers depend from the producer, who operates and proposes services in their houses. Of course, customers can refuse their services, but it is costly to get connected with another heating supplier, because of the expensive infrastructure. The effect of the cartel for clients is increased or reduced heating prices. The cost of the heating was growing in Vilnius region. However, prices were increasing in all Lithuania, and it is inappropriate to declare that, it was an outcome of the cartel (Prefix 8). And the consumption expenditure was increasing relatively to the price changes. This case shows that, cartel did not have a direct effect for the society, because cartel did not affect price changes. The heating prices were dynamically changing in the whole country.

This cartel creation mostly influenced competitors of manufacturers of biofuel and suppliers. Because, two biggest companies agreed on a favourable price. It means that, competition intensified between other competitors, who shared the smallest part of the market. To maintain in the market, they had to increase the market price. It is hard to define what exact loss or growth of incomes competitors

experienced, because they keep incomes and expenditures as commercial secret. However, Competition Council of the Republic of Lithuania proposes information that, during the cartel and after cartel it, the number of the suppliers did not decrease in the market. This case did not implement high negative effects for the national economy, because First Opportunity OU reduced corporate taxes counterbalanced with “Vilniaus energija” corporate taxes. If we assume that incomes of the “Vilniaus energija” increased because of the cartel than, VAT taxes, which government received, also increased.

All in all, this case shows that, not all the time, cartels negatively influence customers or national economy. However, this cartel intensified the competition level between biofuel manufacturers and suppliers. They increased the price to maintain in the market, and because of that their customers had to pay overcharge for the same production. What is more, it is possible to presume that, this cartel decreased competitors’ incomes.

Second case. Cartel was created between “Forum Cinemas”, “Multikino Lietuva” and “Cinamon Operations”. It was formatted in 2009 April and lasted until 2012 May (38 months). This cartel was detected only in 2015. Companies breached Lithuania’s Competition Law Article 5(1.1.) which is based on the EU Competition Law Article 101 (Competition Council of the Republic of Lithuania, 2015b). All enterprises competed against each other in the same market, and with horizontal cartel creation, they agreed on three essential aspects: ticket prices, discounts and information exchange.

The market was defined as a movie showing national market. Main competitors, who were working in the same market were: “Atlantic Cinema”, “Pasaka”, “Skalvija”, “Garso kino teatras”, “Romuva” and “Kankles”. “Multikinas” gained 8%-15%, “Forum Cinemas” shared 69%-70% and “Cinamon Operations” received 10% of the movie showing market. Companies agreed that, they will not sell tickets for 17 Lt (4,9 Eur) in the 2010 year. Days of showing movies with discounts (“Olialia”, “Yomayo” and “Yzzi”) were coordinated, and prices were 6 Lt (1,74 Eur) for 2D movies and 10 Lt (2,9 Eur) for 3D movies (Competition Council of the Republic of Lithuania, 2015b). Figure 17 proposes average prices for the tickets in all cinemas in Lithuania.

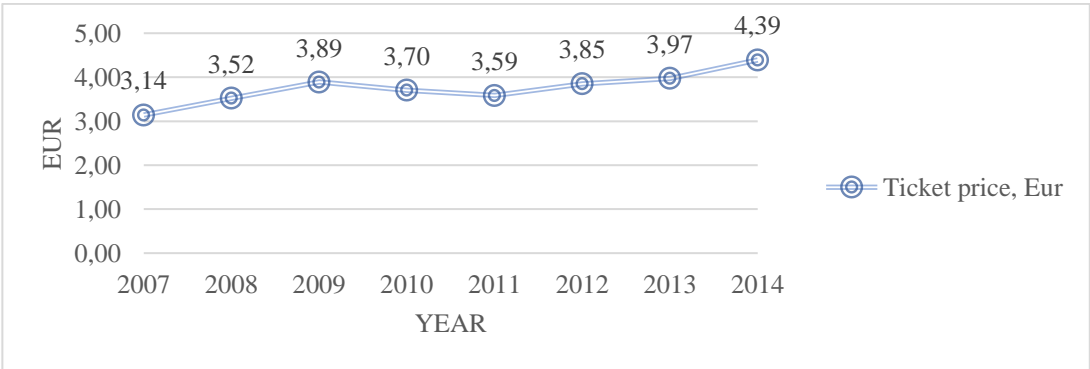


Figure 17. Average Price for Cinema Ticket in Lithuania During 2007-2014 (source: <https://kt.gov.lt/>).

This cartel was active in 2009-2012 years, and all three cinemas set prices, which were higher than average market price. The constant price growth, before the cartel can be indicated. The reason for the cartel creation and price growth could be an Economic Crisis. The overcharge of the price by the cartel was 10,5% comparing with the average prices before the cartel creation (Competition Council of the Republic of Lithuania, 2015b). Price changes can be influenced by the inflation. However, the inflation level, in this sector during the analysed period, was decreasing comparing with the previous year (Prefix 9). Inflation started to increase only from 2013, and the average ticket price increased as well. All in all, it is possible to declare that, price for the cinema ticket was not increasing, because of the excised inflation level in Lithuania’s culture sector. What is more, market members, who were not included in the cartel, did not follow the price overcharge, which was made by the cartel. That is why, market equilibrium price stayed lower than the cartel price. Figure 18 indicates the changes in the number of cinema shows.

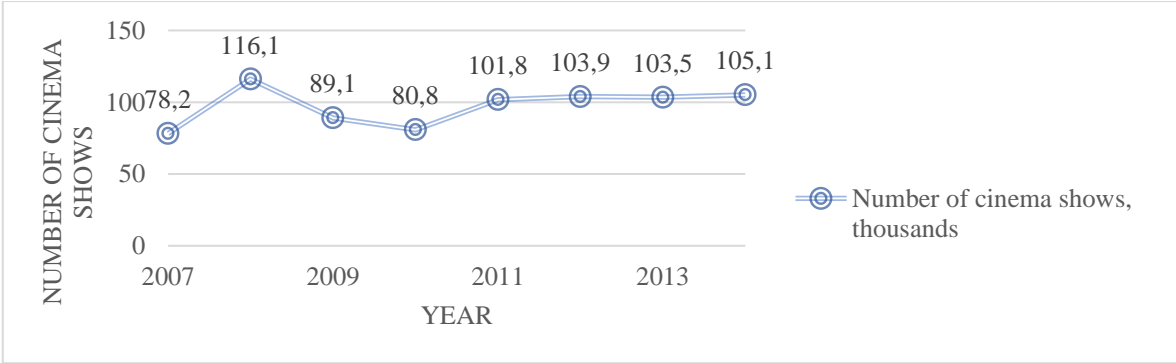


Figure 18. Number of Cinema Shows in Lithuania During 2007-2014 (source: <https://kt.gov.lt/>).

Economists declare that, companies which increase the price tend to decrease the output. Figure 18 proves theory, because the number of cinema shows decreased dramatically in 2009 and 2010 years. However, it increased in 2011 and 2012, but it did not reach the 2008 level. It affected customers, because they lost a chance to choose between a higher variety of movies and their frequency. What is more, companies were changing the information about the discount days (the time and movies which will be shown). This information exchange reduced the possibility for customers to receive competitive discounts.

The objectives influenced by this cartel were: customers who went to the cinemas and paid the price, which was higher than average market price. Paid taxes (corporate income and VAT) and fines, which companies had to pay when cartel was revealed. All of them effected Lithuania’s economy (Table 6).

Table 6. Positive and Negative Effects of the Cartel for Lithuania’s Economy, thousands Eur. (VAT size 2009: 19%, 2010-2012: 21%) (made by the author).

| | 2009 | 2010 | 2011 | 2012 | Total |
|-----------------------------------------|----------------|----------------|----------------|----------------|-----------------|
| Total market income | 8212,05 | 9342,30 | 10925,80 | 4893,58 | 33373,73 |
| Cartel income | 7226,60 | 8221,22 | 9614,70 | 4599,97 | 29662,50 |
| Cartel overcharge, 10,5% | 758,79 | 863,23 | 1009,54 | 483,00 | 3114,56 |
| Total negative impact | 758,79 | 863,23 | 1009,54 | 483,00 | 3114,56 |
| Cartel income because of the overcharge | 758,79 | 863,23 | 1009,54 | 483,00 | 3114,56 |
| Cartel paid corporate income tax | 113,82 | 129,48 | 151,43 | 72,45 | 467,18 |
| Paid VAT | 144,17 | 181,28 | 212,00 | 101,43 | 638,88 |
| Total positive impact | 257,99 | 310,76 | 363,44 | 173,88 | 1106,07 |
| NET impact | -500,80 | -552,47 | -646,11 | -309,12 | -2008,49 |

6 Table indicates cartel effects during 38 months. In 2009 effects are counted for 9 months and in 2012 for 5 months. The table shows that the negative effect was the overcharge. And positive impact was paid taxes, because of the increased prices. Total impact shows negative numbers, which mean that cartel creation had bigger negative effect than positive. This impact varied and was the smallest in 2012 when the cartel was stopped. However, during the beginning of the cartel, the negative effect was high and reached the highest negative impact level in 2011. Welfare of the customers was reduced, because they overpaid for the cinema tickets. It is necessary to mention the fines, while validating the cartel effects. Fines were imposed for each company: “Forum Cinemas” 1 384 300 Eur, “Multikino Lietuva” 99 200 Eur, “Cinamon Operations” 138 800 Eur. However, only “Forum Cinemas” had to pay the fine, because other enterprises used leniency program and received immunity. Total negative impact, for the national economy, was 2 008 490 Eur and “Forum Cinemas” had to pay less than 1,5 million euro fine (Competition Council of the Republic of Lithuania, 2015b). It means that, Lithuania’s economy experienced total negative impact of 624 180 Eur. If this case would be started by the Lithuania’s Competition Council and not by leniency programme, the negative effects of the cartel would be equal to 386 180 Eur. What is more, the fine for “Forum Cinemas” was reduced because set fine exceeded the ten percentage of annual income in 2014. Because of the increased price the national economy experienced loss of the GDP. Prefix 10 indicates that during the cartel creation people stopped reduced their expenditures for the cultural activities which includes cinemas and theatres. Private household consumption expenditure decreased from 2007 until 2011. This can be explained by the existed economic crisis and higher ticket prices. And expenditure growth can be seen at the end of the cartel existence. It is important to mention that, total GDP in Lithuania was reduced in 2009 (Figure 15), but

after, it was steadily growing, however culture sector graph do not show the same tendency, because it was still decreasing in 2010.

This assumption has a limitation, because it is not clear how market share was changing between cartel members and non-cartel members. What is more, total income for the movie projecting includes non-commercial movies, which usually are shown for free. This aspect distorts the real average price of the cinema tickets over the years. The welfare of consumers was reduced, because of the reduced output and increased prices. This situation is illustrated in the Figure 19.

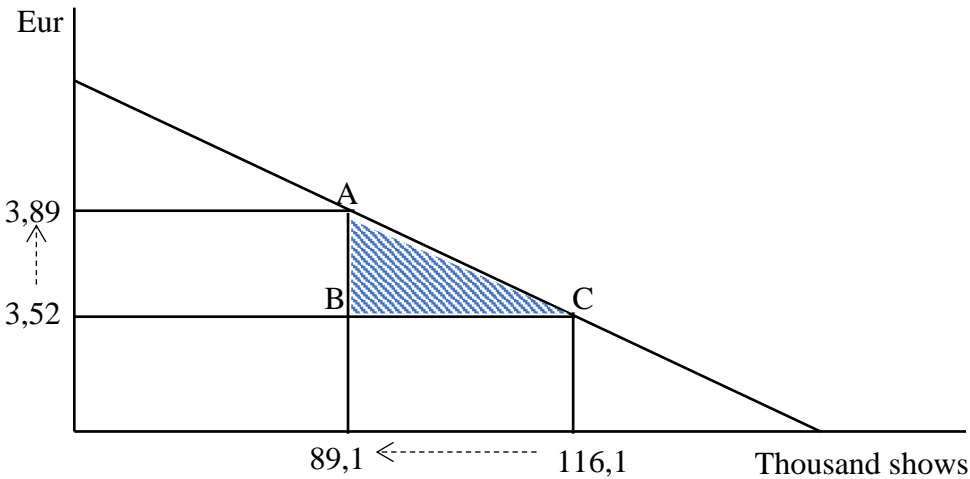


Figure 19. Negative Impact of the Cartel for Social Welfare (source: <https://kt.gov.lt/>).

This cartel agreement shifted market price and number of shown shows, as it is indicated in the Figure 19. The total social welfare loss is equal to 9,99 thousand Eur, the sum which customers overpaid, because of the existed cartel agreement (this welfare loss is measured in 2009 when cartel was created).

These analyses proved that cartel creation has higher negative impact than positive. Because of which not only social welfare is reduced, but also national economy is disrupted. From the Table 6, it is easy to compare that adverse effect is almost three times bigger than positive. Fines, which were imposed on the cartel members were 10% of their incomes of the last year. However, fine is four times lower than actual harm enterprises made by creating cartel. As Bailey and Whish (2015) declare, the EU Commission proposes ineffective fine measurement, because it does not stop undertakings to collude and create new cartels in the market.

Third case. Another cartel was formed between travel agencies in Lithuania in 2009 August and lasted for seven months. The Competition Council of the Republic of Lithuania detected it only in 2012, because one of the cartel members gave information about it. According to the competition authorities, this cartel breached Lithuania’s Competition Law Article 5(1.1.) (Council of the Republic of Lithuania, 2012). Thirty-one company made a horizontal agreement, which reduced competition between them in the market. Enterprises reached an agreement on the possible maximum discount size for the trips,

which were booked through specific program E-Turas. The main competitors were defined as all travel agencies, which sell trips by plane or bus and propose accommodations.

There were 309-330 travel organisations in the market during the cartel, and this number increased comparing to the period before the cartel agreement (Figure 20) (Council of the Republic of Lithuania, 2012). Market of the travel agencies was growing, because each year there were more and more undertakings, who started to operate in it. Only in 2012, it is possible to see the decrease of enterprises in this market. Market capacity explains that, cartel was created not to reduce the number of competitors by setting lower price, but vice versa the price increased and market became engaging for new companies to enter it.

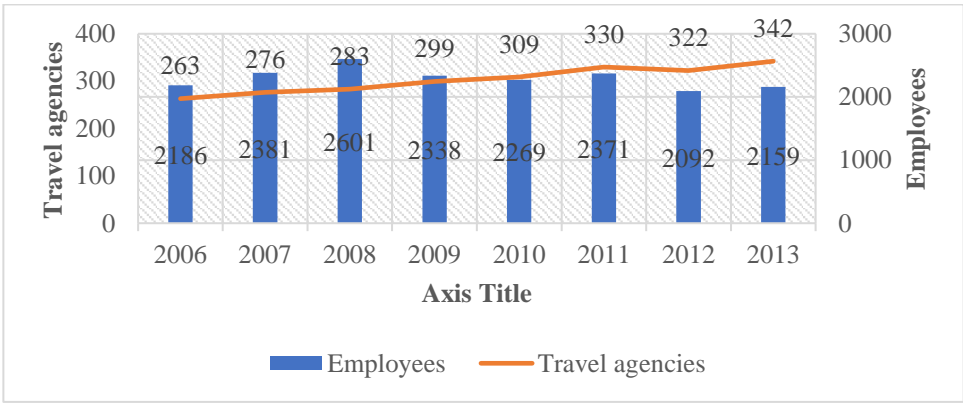


Figure 20. Travel Agencies and Their Employees Number in Lithuania During 2006-2013 (source: <https://kt.gov.lt/>).

During 2006-2013 employment level, in this market, was dynamic, and during cartel existence it significantly decreased. When cartel was stopped, employees number increased in this sector (2011). This chart helps to understand that companies, which created cartel did not need as many workers as before, because of decreased competition in the market. Even though, the number of agencies in the market was increasing. Figure 20 shows that cartel made a negative impact on employment level at that time.

The number of the customers significantly decreased during the cartel existence (Figure 21). The reasons of this effect can be various: people started to save money, because of the economic crisis at that time, or because of the higher prices, fewer people could afford it.

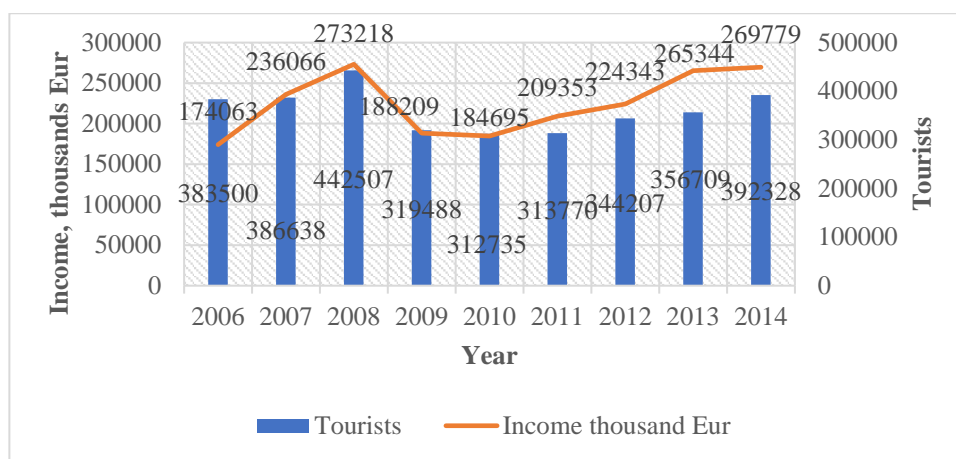


Figure 21. Incomes of the Travel Agencies and Number of Tourists in Lithuania During 2006-2014
(source: <https://kt.gov.lt/>).

Travel agencies earned less than before, because of reduced number of customers. Their total earning reached the lowest point in 2009-2010. It is possible to assume that this cartel did not reach expected outcomes. Market of travel agencies had free capacity which increased the number of new competitors. As Moran and Novak (2009) state, cartel last for the short period, because new competitors enter the market and reduce the price. In this case, the situation was the same, new competitors entered the market and cartel lasted only for seven months. What is more, the private household consumption expenditure for package holidays was changing relatively as total Lithuania's GDP (Prefix 11). From that, it is possible to assume that consumption was changing according to the economic situation in the country at that time.

According to the Lithuania's Competition Council (2012), companies together gained 30-37% (2009-2010) of the market, and this cartel did not involve the majority of the travel agencies in the market. This is one of the reasons why they could not earn more. Companies, which were not participating in the cartel, did propose cheaper trips with higher discounts. In this case, it is declared that customers, who bought travel packages overpaid 10% (comparing with other travel agencies average prices). Even though, cartel members did not hold more than 50% of the market, however, together they shared the highest market share comparing with the other, separate non-cartel companies. Effects of the cartel for the national economy is provided in the Table 7.

Table 7. Effects of the Cartel for the National Economy, thousands Eur (VAT size 2009: 19%, 2010: 21%) (made by the author).

| | 2009 | 2010 | Total |
|---------------------------------------------|-----------------|----------------|-----------------|
| Total market income | 62736,33 | 46173,75 | 108910,08 |
| Cartel income | 23212,44 | 13852,13 | 37064,57 |
| Cartel 10% overcharge | 2321,24 | 1385,21 | 3706,46 |
| Total negative effect | 2321,24 | 1385,21 | 3706,46 |
| Cartel income because of the 10% overcharge | 2321,24 | 1385,21 | 3706,46 |
| Cartel paid corporate income tax | 348,19 | 207,78 | 555,97 |
| Paid VAT | 441,04 | 290,89 | 731,93 |
| Total positive effect | 789,22 | 498,68 | 1287,90 |
| NET effect | -1532,02 | -886,54 | -2418,56 |

This table indicates the cartel effects for seven months (four in 2009 and three in 2010). Market share, of the cartel members, was equal to 37% in 2009 and 30% in 2010. In this case, the cartel had a negative effect, because of the overcharge, which customers experienced. Overcharge is the size of the possible smaller price, which could be paid if companies would be competing in the market. However, enterprises did not act as competitors in the market, and cooperated to receive higher profit. This cartel net effect, for the Lithuania's national economy, had almost three times higher negative impact than positive. All companies together had to pay 2 222 544 Eur fine (Prefix 12). It leads that, total cartel negative effect was equal to 1 307 016 Eur (Council of the Republic of Lithuania, 2012). It would be smaller if competition Council of the Republic of Lithuania did not have to reduce the fines for the companies, because the fine size was higher than ten percentage of the 2010 annual incomes. This effect would be higher if cartel would be able to increase market price. However, the high capacity in the market encouraged newcomers, who increased their market share and decreased customers number of cartel members.

All in all, cases studies, of the three different cartels in Lithuania, suggest that negative effect of the cartels are higher two or more times. Cartels do not maintain stable employment level in Lithuania. However, the theory that, cartel stimulates new companies to enter the market, can be proved by the third case. Over the last ten years, all the cartels, which were detected in Lithuania, were created to shift welfare from customers to producers. Companies did not cooperate to improve quality of the production or services, invest in new technologies or research and development. Lithuania is a small country, in which operates relatively small number of different enterprises. This aspect brings concerns, because it is easier to cooperate and take coordinated actions in the market. On the other hand, Lithuania's market still has capacity, which can be fulfilled by new competitors every day.

4. GENERALISATION OF NEGATIVE AND POSITIVE EFFECTS OF CARTELS FORMATION IN LITHUANIA

To generalise the main findings of master's thesis, it is necessary to look back at the main tasks. Firstly, the clarification of the cartel phenomenon from the perspective of economic theory, defines the cartel as a secret agreement. It is made between two or more companies, which are competing in the same market. Cartels can be horizontal and vertical. Vertical cartel is defined as a secret agreement between manufacturer and retailer. Meanwhile, the horizontal cartel is the most common one and is made by two or more companies which compete in the same market. There were created both types cartel agreements in Lithuania, and validation of the cartel effects showed that horizontal agreements are the most harmful for national economy and social welfare. Bruneckiene's et al. (2015) suggested model includes validation of positive and negative effects of the cartel. Validated three different cartel agreements in Lithuania proposed the conclusion that, positive effects of the cartel are increased VAT and corporation income taxes. However, these cases proved Montalban, Ramirez-Perez and Smith (2011), Nielsen (2011), Klimasauskiene and Giedraitis (2011), Eskbo (1976), Aghion and Griffith (2008) theory that cartels negatively affect national economy.

The scope of the EU Competition Law includes political and economics areas. It is the first EU supranational policy. The EU Competition Law is defined in the Treaty on Functioning of the European Union. Article 101 TFEU concerns vertical and horizontal agreements between companies. All three validated cartel cases breached the Article 5 of Lithuania's national Competition Policy which is based on the Article 101 TFEU. These cases indicated illegal agreements, which were created to reduce competition, fix prices and output, set maximum discount. All actions are recognised as an intention to reduce the social welfare. Competition Council of the Republic of Lithuania is responsible to monitor if companies do not breach the Competition Policy.

The evaluation of cartels effects for the Lithuania's economy set clear idea about cartels' situation in Lithuania. During 2005-2015 there were detected 31 cartels and most of them were in the services industries. Procurement is recognised as the most vulnerable area for cartels creation in Lithuania. Statistically Competition Council of the Republic of Lithuania investigates 61% of the cases which reached them because of notification of other institutions, companies' complaints or leniency program. And only 39% of the cases were started by the initiative of the Competition Council of the Republic of Lithuania. This statistical data explains that if only Lithuania's competition authorities would be seeking to maintain fair competition in the market, then only 12 cases during 10 years would be detected. Over the last decade 213 undertakings were involved in the cartels. Companies' involvement in anticompetitive behaviour is increasing, and from evaluated data it is possible to predict that next year there will be even more companies which will create a cartel. The reasons for this situation are ineffective

detection system of cartel or increasing competition in the markets. In this case companies seek to reduce competition and create cartels. Cartels are not detected immediately or at the same year when it is created. During 2005-2015 years detected cartels were formed during the 1998-2013 years. It shows a gap between formation and detection of the cartels and it lets for the companies to benefit. Even though, cartels are detected but they already effected economy of Lithuania. The situation can be changed only if there will be implemented an effective system to recognise more quickly the possible cartel creation.

Lithuania is relatively a small country, and the average cartel's duration is 37,5 months, but this number can be distorted because there is included one of the longest cartel which lasted for 156 months. The fines imposed for the companies were relatively low at the beginning of the period. However, the situation changed significantly from 2011. Fines increased 833 times comparing 2005 and 2015 years. Unfortunately, it does not stop companies to cooperate and create cartels because the number of the companies involved in the cartels are increasing. What is more, increased fines can suggest that with each year more profitable companies are involved in the cartels. Some of the scientist support cartels because they have a positive effect. However, there were not detected cartels which were created for innovation, technology improvement or investment on research and development in Lithuania. All of them had objectives which reduced the social welfare and negatively affected the national economy. Most frequent cartels were price fixing, information exchange and actions coordination. To look deeper in the existing situation in Lithuania three cases were analysed.

Bruneckiene's et al. (2015) model, to validate the effects of the cartels, proves that cartels negatively and positively affect the national economy. This model in the first case in the biofuel market shows that vertical cartel agreement directly does not influence society or national economy, however, competition is distorted. Competition intensifies between manufacturers and retailers because of the cartel agreement which fixes prices and quantity which has to be bought. Profit of the smaller companies are reduced because they lost the possibility to trade with two biggest companies which created a cartel. Customers indirectly are affected because companies which are not involved in the cartel increase prices to stay in the market. Their customers overpay for the same product. However, customers of the companies which create cartel are not affected because the price for the does not increase. Vertical cartel agreement increases incomes of the company which buys from the manufacturer because it pays less than before. The situation from the perspective of paid taxes for the national budget does not change. The level of taxes does not decrease or increase because taxes of both companies counted together are the same. However, different situation is with the competitors which are not involved in the market. Their relative share of taxes increase because for the same amount of sold output they receive higher incomes.

Second analysed carted is horizontal agreement between Lithuania's biggest cinemas. Companies fixed the price for the tickets and society had to pay overcharge. Customers overpaid around 9,99

thousand euro per one year. Taxes were a positive side of this cartel for the national economy because higher income assured higher paid taxes to the national budget. However, the negative impact was almost three times greater than positive. Bruneckiene's et al. (2015) and Motta's suggested models showed that horizontal agreements are more harmful for the national economy and it also negatively effects customers welfare. Unfortunately to detect this type of the cartel is harder because three companies owned almost all the market and there were no competitors which could complain for the competition authorities. One of the main tool to detect horizontal cartels, when there are not many competitors in the market, is leniency programme. Unfortunately, this programme is not popular among Lithuania's companies and during last decade only 4 cases started because cartel members proposed information about the anticompetitive behaviour. To prevent existing situation this programme and its benefits should be promoted more efficiently.

The last analysed case was formed between travel agencies in Lithuania. They set minimum discount size and reduced competition among themselves. Competition Council of the Republic of Lithuania declared that customers overpaid around 10% because they did not receive maximum possible discounts. Cartel's negative impact on the national economy was two times higher than positive. This cartel is defined as a horizontal as well. However, it had not effected Lithuania's economy as much as the second case. The reason for this can be explained by Wish (2009) theory that different cartel objectives bring different outcomes. Price fixing is defined as the most harmful cartel which affects national economy and social welfare, meanwhile in the third case companies agreed on the maximum discount size. In general, the price for the travel agencies services did not change only customers did not receive discounts. The second and the last cases approve Motta (2004) assumption that horizontal agreements restrict competition and reduce social welfare.

To sum up, it is important to highlight that Lithuania is moving forward with the fight against cartels. However, there are aspects, which should be improved. Competition Council of the Republic of Lithuania should start to implement a more efficient program to detect cartels, because leniency system is not that effective as comparing to whole Europe. Companies in Lithuania are not in favour to breach an agreement with competitors to avoid the fine. What is more, there is an increasing number of companies' involvement in the cartels. Fines, which companies receive are small comparing with the profit they earn. Horizontal cartel agreements are more harmful than vertical agreements. Cartels with different objectives bring different outcomes, price fixing harm national economy more than fixing maximum discount size. Competition authorities should start focusing on the price changes in the markets, to prevent the most harmful cartels. There is no doubt, that cartels bring higher negative impact than positive, for the national economy and social welfare in Lithuania.

CONCLUSIONS AND RECOMMENDATIONS

- It has been noticed that cartel is defined as a secret agreement which is made between two or more companies which are competing in the same market. There are many different economists who analysed positive and negative sides of the cartel. Their thoughts and findings clarify that cartels are a complex object which usually violates the law. It is not questionable that cartel creation negatively affects the national economy, however, it brings some benefits too. Negative side of the cartels are overcharge, decreased output, reduced welfare of society, increased tension among competitors which are not involved in the cartel, harder to enter market for new companies, etc. On the other hand, positive side of the cartel is defined as stable employment level and prices in the market, higher quality products, reduced bankruptcy risk of the companies, etc. Market specificities are determined as important tool for frequency of cartels creation. A small number of the companies and a lot of customers in the market, transparent and growing market are indicators which increase the possibility of the cartel creation. And vice versa, few customers and many companies in the market, demand elasticity and market dynamic decrease the probability to create a cartel. To validate cartel's effect on the national economy all aspects have to be taken into account: positive and negative effects, market specificities, reasons why cartel was created.

- It has been identified that, the scope of the European Union Competition Law includes political and economic areas. It is the first EU supranational policy. The very beginning of the Competition Policy can be found in 1950 with Shuman speech which had highlighted the need for the common market in the Europe. Even though the EU Competition Policy was created it did not bring the expected outcomes. The common market was created but it was not effectively controlled. Over the years, the EU Competition Policy had ups and downs, but it still was moving forward. The Treaty of Paris and the Treaty of Rome were main treaties which had indicated the main changes in the EU Competition Policy. Firstly, notification system was changed, and economic efficiency and market integration were highlighted. After all, TFEU came into force with common rules on Competition Law and harmonised regulations. The EU Competition Law is defined in the Articles 101 and 102. The main EU Competition Policy features are abuse of dominant position, mergers, state aid and cartels. All of them can be defined as a legal or illegal behaviour depending on their specificities. Cartels most of the time are defined as illegal agreements except if they were created to increase innovations, to develop new technologies or to invest in research. There are many different institutions which monitor suspicious enterprises' behaviour, but the main ones are the EC and national competition authorities. Competition Law has four main objectives: to protect competitors, to increase social welfare, to integrate market and to set equal rights for enterprises and to oblige them to act fairly in the market. However, the EU Competition Policy

does not avoid contradictions. It seeks to protect smaller companies from the bigger enterprises, however, the EU Competition Policy set objective to maintain equal rights for all market participants.

- Validation, of the effects of the cartels formation in Lithuania, has been determined that companies in Lithuania do cooperate to shift welfare from the customers to producers. Statistical data shows that cartels occur more frequently in the service sectors than industries. Most of the cartel cases are detected with the help from companies or other institutions, and not by initiative of the Lithuania's Competition authorities. Leniency program should be promoted more in Lithuania, because the smallest part, of the cases, is detected because of the leniency programme. Companies have low culture of the Competition Policy in Lithuania, and it is the reason for the increasing involvement of undertakings in the cartels. Price fixing, information sharing and coordinated actions are the most frequent cartel types in Lithuania. Almost half of the cartels are created for the price fixing, and they are defined as the most harmful for the national economy and social welfare. Studies of the cartels cases, in Lithuania, prove that negative effect of the cartel, with an objective to fix price, was higher than in other two cases. No matter what is the potential positive effect of the cartels, but the negative one is higher two or more times.

- Generalisation of the negative and positive effects of cartels formation indicates that Lithuania is moving forward with the fight against cartels. However, it has been investigated that there are aspects which should be improved. Competition Council of the Republic of Lithuania should start implement a higher awareness about Competition Policy and leniency program. This program is the most vital and efficient tool in the EU, however, not in Lithuania. Companies in Lithuania are not in favor to breach an agreement with competitors to avoid the fine. Because of that, Lithuania's competition authorities should implement a new way to detect cartels. Price fixing is the most common type of the cartels in Lithuania, and to prevent them, competition authorities should start focusing on the price changes in the markets. Companies receive higher profit from the cartel than competition authorities impose fines. It stimulates enterprises to cooperate and benefit, without a fear to get caught. To change existing situation, Lithuania's Competition Council should not discount the fines according to its duration. Because companies receive high profits during cartel, and imposed fines are not even close to the damage companies made for the national economy. Another solution for insufficient fines can be the higher percentage fines. Nowadays, Competition authorities impose fines which are only 10% of the total annual income. What is more, fine should be imposed from each year annual income and not the last one. There is no doubt, that cartels bring higher negative impact than positive, for the national economy and social welfare in Lithuania.

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PREFIX 1. THE MEASURE OF THE FINE FOR CARTEL CREATION (source: <https://kt.gov.it/>).

| | |
|-------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Basic fine | Percentage of value of relevant sales (0-30%) x Duration (years or periods less than one year) + 15-25% of value of relevant sales: additional deterrence for cartels |
| Increased by | Aggravating factors e.g. ring leader, repeat offender or obstructing investigation |
| Decreased by | Mitigating factors e.g. limited role or conduct encouraged by legislation |
| Subject to overall cap | 10% of turnover (per infringement) |
| Possible further decreased by | Leniency: 100% for first applicant, up to 50% for next, 20-30% for third and up to 20% for others |
| | Settlement: 10% |
| | Inability to pay reduction |

Article 101

(ex Article 81 TEC)

1. The following shall be prohibited as incompatible with the internal market: all agreements between undertakings, decisions by associations of undertakings and concerted practices which may affect trade between Member States and which have as their object or effect the prevention, restriction or distortion of competition within the internal market, and in particular those which:

- (a) directly or indirectly fix purchase or selling prices or any other trading conditions;
- (b) limit or control production, markets, technical development, or investment;
- (c) share markets or sources of supply;
- (d) apply dissimilar conditions to equivalent transactions with other trading parties, thereby placing them at a competitive disadvantage;
- (e) make the conclusion of contracts subject to acceptance by the other parties of supplementary obligations which, by their nature or according to commercial usage, have no connection with the subject of such contracts.

2. Any agreements or decisions prohibited pursuant to this Article shall be automatically void.

3. The provisions of paragraph 1 may, however, be declared inapplicable in the case of:

- any agreement or category of agreements between undertakings,
- any decision or category of decisions by associations of undertakings,
- any concerted practice or category of concerted practices,

which contributes to improving the production or distribution of goods or to promoting technical or economic progress, while allowing consumers a fair share of the resulting benefit, and which does not:

- (a) impose on the undertakings concerned restrictions which are not indispensable to the attainment of these objectives;
- (b) afford such undertakings the possibility of eliminating competition in respect of a substantial part of the products in question.

Article 102

(ex Article 82 TEC)

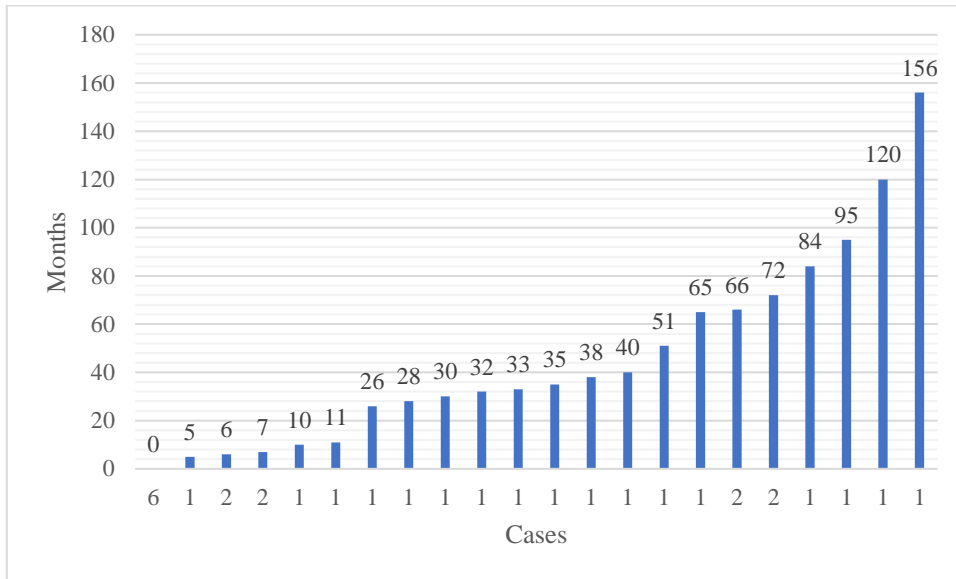
Any abuse by one or more undertakings of a dominant position within the internal market or in a substantial part of it shall be prohibited as incompatible with the internal market in so far as it may affect trade between Member States.

Such abuse may, in particular, consist in:

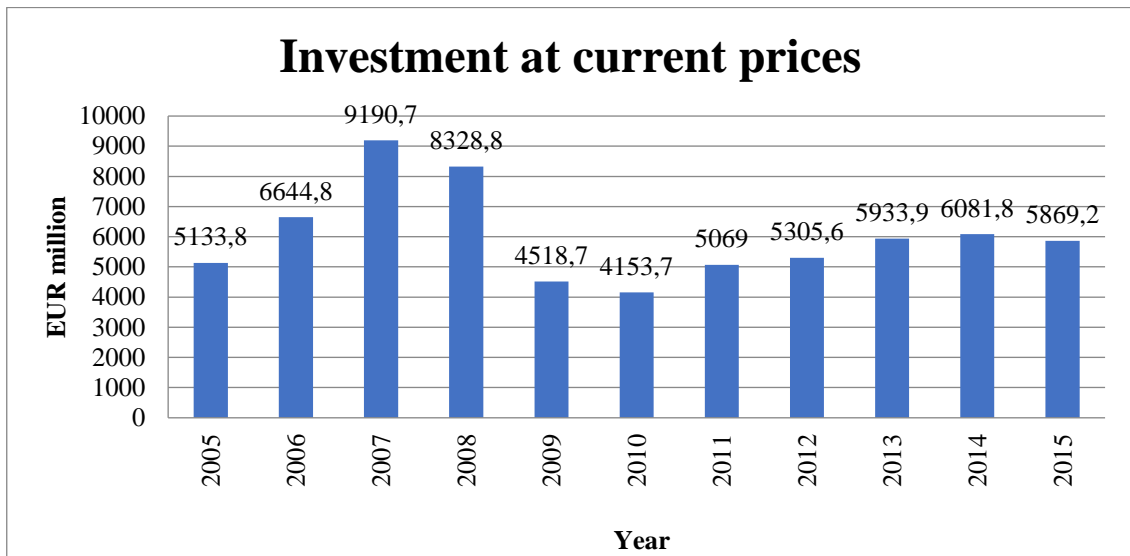
- (a) directly or indirectly imposing unfair purchase or selling prices or other unfair trading conditions;

- (b) limiting production, markets or technical development to the prejudice of consumers;
- (c) applying dissimilar conditions to equivalent transactions with other trading parties, thereby placing them at a competitive disadvantage;
- (d) making the conclusion of contracts subject to acceptance by the other parties of supplementary obligations which, by their nature or according to commercial usage, have no connection with the subject of such contracts.

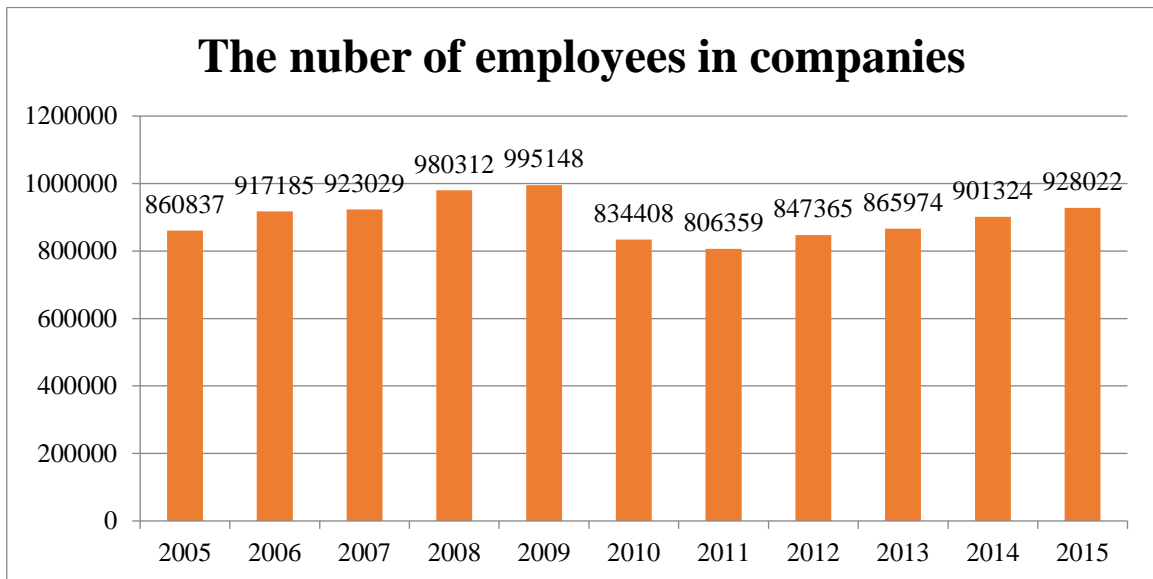
PREFIX 3. CARTELS DETECTED IN 2005-2015 DURATION (SOURCE: [HTTPS://KT.GOV.LT/](https://kt.gov.lt/)).



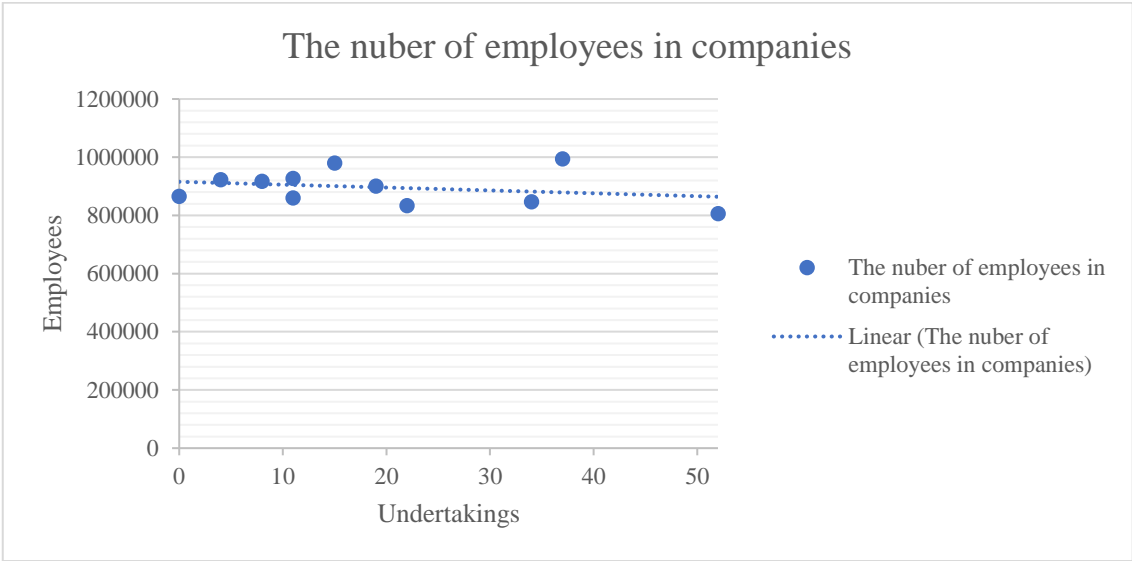
PREFIX 4. INVESTMENTS 2005-2015 IN LITHUANIA (Source: <http://www.stat.gov.lt/>).



PREFIX 5. NUMBER OF EMPLOYEES IN LITHUANIA (Source: <http://www.stat.gov.lt/>).



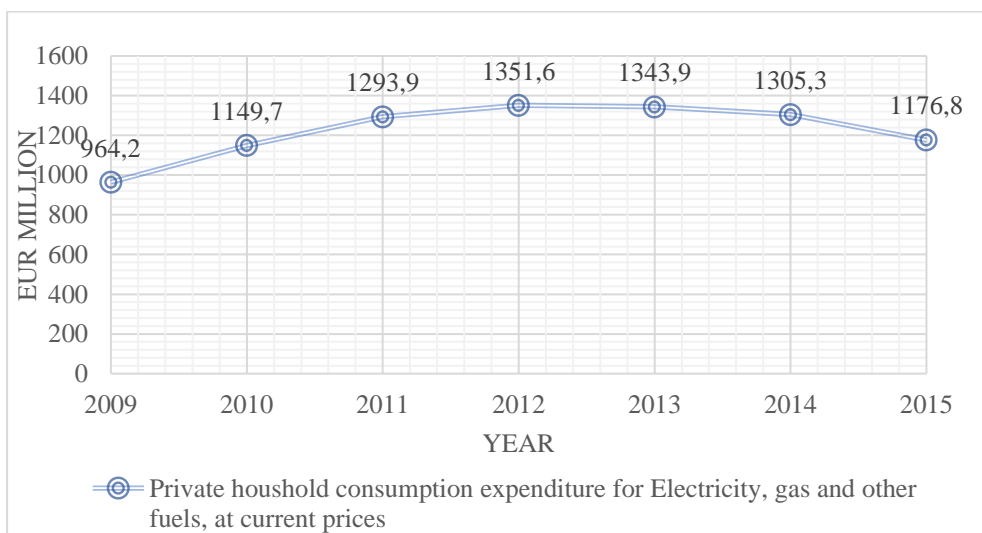
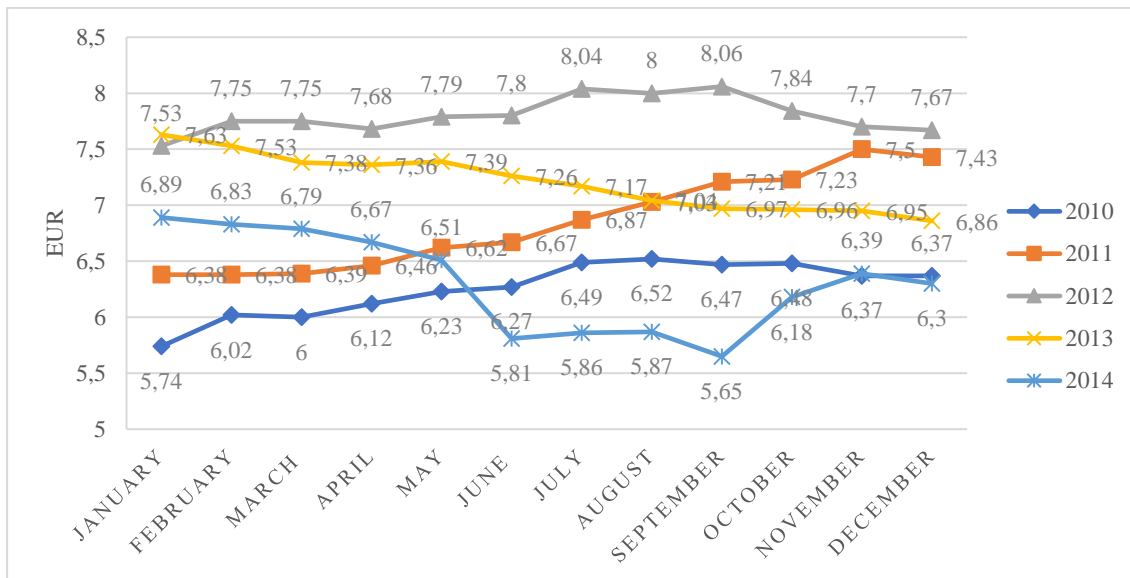
PREFIX 6. CORRELATION BETWEEN UNDERTAKINGS IN THE CARTEL AND EMPLOYMENT LEVEL (made by author, source: <http://www.stat.gov.lt/>).



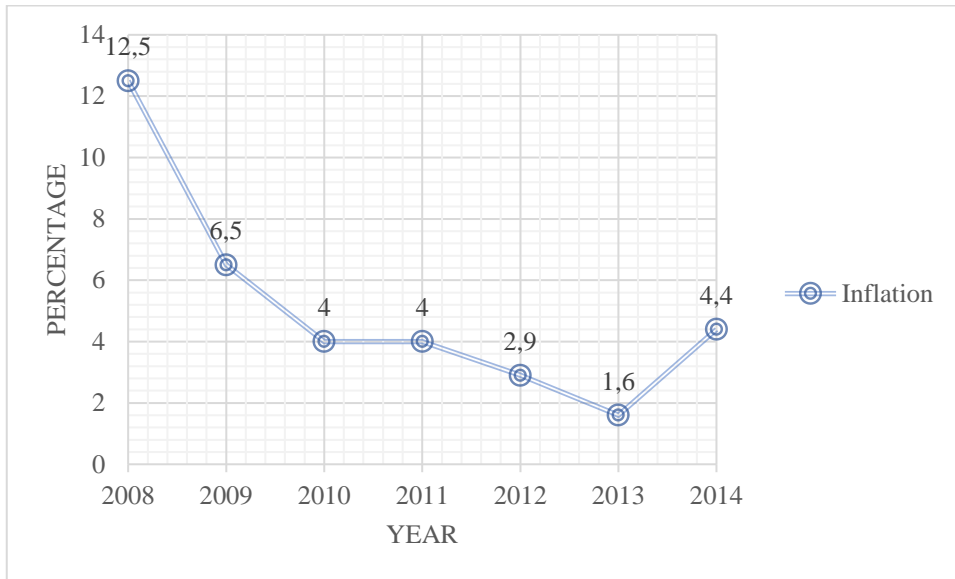
PREFIX 7. THE BIGGEST BIOFUEL SUPPLIERS' MARKET SHARE (source: <https://kt.gov.lt/>).

| Company | 2010 m. | 2011 m. | 2012 m. |
|---------------------------|-------------------|-------------------|-------------------|
| First Opportunity OU | [62,00 – 65,00] % | [59,00 – 62,00] % | [60,00 – 63,00] % |
| “Timbex” | [0,00 – 1,00] % | [4,50 – 5,50] % | [5,00 – 6,00] % |
| “BOEN Lietuva” | [0,50 – 1,50] % | [2,50 – 3,50] % | [4,50 – 5,50] % |
| “Baltwood” | [1,50 – 2,50] % | [0,50 – 1,50] % | [4,00 – 5,00] % |
| “Fortum ekosiluma” | [6,00 – 7,00] % | [4,50 – 5,50] % | [4,00 – 5,00] % |
| “Grasta” | [6,00 – 7,00] % | [4,50 – 5,50] % | [3,00 – 4,00] % |
| “Biovoice” | [0,00 – 1,00] % | [0,50 – 1,50] % | [1,00 – 2,00] % |
| “Fortex Energy” | [0,00 – 1,00] % | [0,00 – 1,00] % | [1,00 – 2,00] % |
| “Uzmojai su garantijomis” | [0,50 – 1,50] % | [1,00 – 2,00] % | [1,00 – 2,00] % |
| “Keratas” | [0,00 – 1,00] % | [0,00 – 1,00] % | [1,00 – 2,00] % |

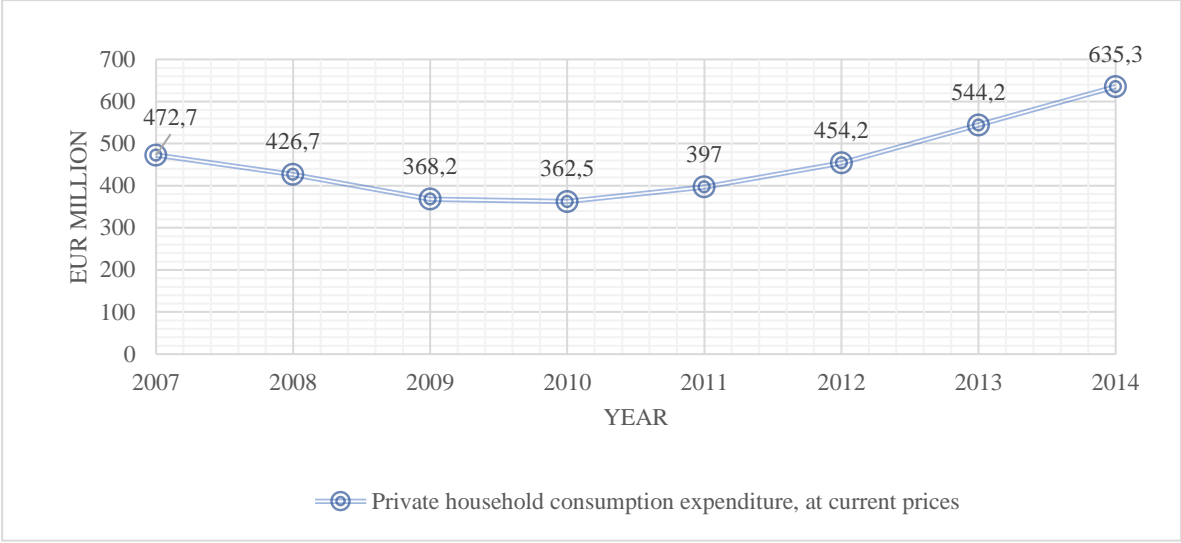
PREFIX 8. AVERAGE HEATING PRICE IN LITHUANIA 2010-2014 AND GDP CHANGES, COUNTED AS PRIVATE HOUSHOLD CONSUMPTION EXPENDITURE (made by author, source <http://www.regula.lt/> and <http://www.stat.gov.lt/>)



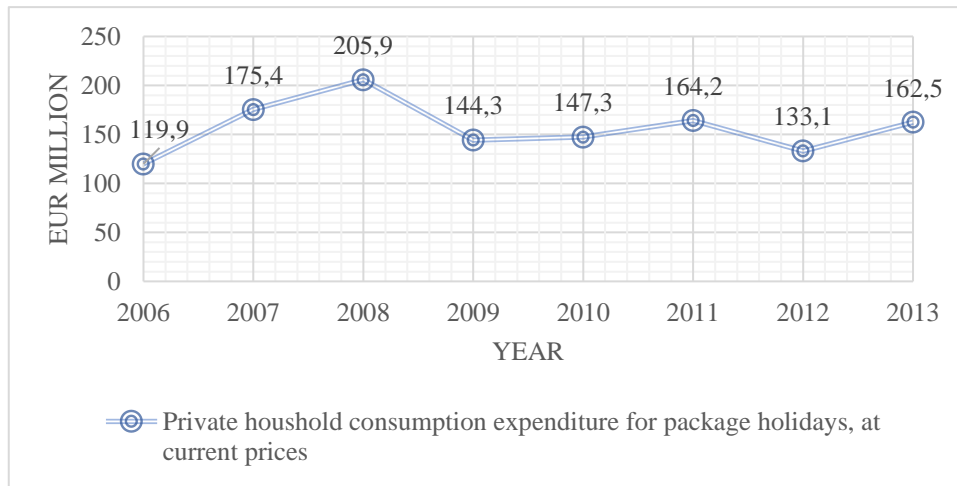
PREFIX 9. INFLATION IN CULTURE SECTOR (source: <http://www.stat.gov.it/>).



PREFIX 10. GDP CHANGES, COUNTED AS PRIVATE HOUSEHOLD CONSUMPTION EXPENDITURE, AT CURRENT PRICES (source: <http://osp.stat.gov.it>)



PREFIX 11. GDP CHANGES, COUNTED AS PRIVATE HOUSHOLD CONSUMPTION EXPENDITURE FOR PACKAGE HOLIDAYS, AT CURRENT PRICES (Source: <http://osp.stat.gov.lt/>).



PREFIX 12. FINES, WHICH TRAVEL AGENCIES HAD TO PAY BECAUSE OF THE CARTEL CREATION, 1 Eur=3,4528 (made by author, source <https://kt.gov.lt/>)

| Company | Fine, Lt | Fine, Eur |
|------------------------|----------------|----------------|
| “AAA Wrislit” | 358800 | 103915,66 |
| “Aljus ir KO” | 2400 | 695,09 |
| “Aviaeuropa” | 12100 | 3504,40 |
| “Baltic Clipper” | 154600 | 44775,25 |
| “Baltic Tours Vilnius” | 112000 | 32437,44 |
| “Daigera” | 79300 | 22966,87 |
| “Eturas” | 51100 | 14799,58 |
| “Feronas” | 33200 | 9615,38 |
| “Freshtravel” | 12200 | 3533,36 |
| “Grand Voyage” | 1900 | 550,28 |
| “Guliverio keliones” | 639800 | 185298,89 |
| “Gustus vitae” | 29100 | 8427,94 |
| “Kalnų upe” | 131300 | 38027,11 |
| “Keliautoju klubas” | 202500 | 58648,05 |
| “Kelioniu akademija” | 389900 | 112922,85 |
| “Kelioniu gurmanai” | 14400 | 4170,53 |
| “Kelioniu laikas” | 107500 | 31134,15 |
| “Litamicus” | 58600 | 16971,73 |
| “Megaturas” | 2090700 | 605508,57 |
| “Megaturas” | 2090700 | 605508,57 |
| “Neoturas” | 107000 | 30989,34 |
| “Smaragdus travel” | 229400 | 66438,83 |
| “TopTravel” | 138900 | 40228,22 |
| “Travelonline Baltics” | 115900 | 33566,96 |
| “Tropikai” | 28400 | 8225,21 |
| “Vestekspress” | 164300 | 47584,57 |
| “Vipauta” | 10800 | 3127,90 |
| “Vistus” | 3700 | 1071,59 |
| “Visveta” | 131400 | 38056,07 |
| “Zigzag Travel” | 13100 | 3794,02 |
| “ZIP Travel” | 8700 | 2519,69 |
| Total | 7674000 | 2222544 |