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THE LIMITATIONS ON THE PUNISHABILITY OF TACIT COLLUSION IN EU COMPETITION LAW

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Abstract

This document discusses the doctrine of tacit collusion in the context of oligopolies. The First part (Section I) discusses the relation between oligopolies and tacit collusion, and the different academic theories on oligopolies and the so-called oligopoly problem. Section II gives an overview of Game Theory and how it is related to the oligopoly problem. Section III discusses the issue of how to identify tacit collusion and the debate between Donald Turner and Richard Posner on the necessity or not to adopt mea-

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sures to tackle it. Once established the relation between oligopolies and tacit collusion, Section IV addresses some facilitating practices that boost the coordination between firms. Section V discusses tacit collusion under Article 101 and 102 of the TFEU and some of the main cases that have dealt in one way or another with this issue. Finally, Section VI gives some final thoughts on the issue of tacit collusion, and how Competition Law should deal with it effectively.

***Key words**: oligopolies; tacit collusion; oligopoly problem; interdependence; game theory; facilitating practices.*

LAS LIMITACIONES DE LA SANCIÓN DE LA COLUSIÓN TÁCITA EN DERECHO EUROPEO DE LA COMPETENCIA

RESUMEN

Este documento discute la doctrina de la colusión tácita en el contexto de los oligopolios. La Primera parte (Sección I) discute la relación entre los oligopolios y la colusión tácita, las diferentes teorías académicas sobre oligopolios y el llamado problema del oligopolio. La Sección II da una visión general de la Teoría del Juego y cómo se relaciona con el problema del oligopolio. La sección III discute la cuestión de cómo identificar la colusión tácita y el debate entre Donald Turner y Richard Posner sobre la necesidad o no de adoptar medidas para abordarlo. Una vez establecida la relación entre oligopolios y colusión tácita, la Sección IV aborda algunas prácticas facilitadoras que impulsan la coordinación entre empresas. En la sección V se discute la colusión tácita con arreglo a los artículos 101 y 102 del Tratado de Funcionamiento de la Unión Europea y algunos de los principales casos que han

tratado de una u otra manera con esta cuestión. Por último, la Sección VI da algunas reflexiones finales sobre la cuestión de la colusión tácita y cómo el Derecho de la Competencia debería abordarla eficazmente.

Palabras clave: oligopolios; colusión tácita; problema del oligopolio; interdependencia; teoría de juegos; prácticas facilitadoras.

ABREVIATIONS AND ACCRONYMS

CA Competition Authorities
EC European Commission
ECJ European Court of Justice
EUMR EU Merger Regulation.
TFEU Treaty of Functioning of the European Union
OECD Organization for the Economic Cooperation and development

INTRODUCTION

Markets characterized as oligopolistic are fertile ground for the existence of collusion. In oligopolies, firm's profits strongly depend on the actions of their competitors.[1] As long as there are few sellers in the market, collusive outcomes are likely occur even without explicit agreements[2] among firms in an oligopoly. The literature knows this type of collusive outcomes lacking an explicit agreement to coordinate as tacit collusion.

1 Jones, Alison & Sufrin, Brenda, EU Competition Law, Fourth edition. p. 784-786. It is also shown under the explanation of game theory, where profitability of each firm, depends on the behaviour of other firms in the market.

2 Gutierrez, Juan David., *Tacit Collusion: Theory and Case Law in Argentina, Brazil, Chile, Colombia and Panama (1985 - 2008)* in "Revista de Derecho de la Competencia. Bogotá (Colombia), vol. 5 N° 5, 307-497, enero-diciembre 2009.

According to Whish & Bailey,[3] tacit collusion is a phenomenon that arises in markets where few operators act in a parallel manner as a result of the characteristics of the market, without a concerted practice in the legal sense. Since this type of collusion becomes a relevant issue for authorities, considering that both tacit and explicit collusion respond to similar conditions and firms will obtain benefits at the expense of affecting consumer welfare, the starting point of this document is an analysis of the concept of tacit collusion from the perspective of oligopolies.

Secondly, we will analyze some aspects of oligopolies since it is relevant to determine if the mere existence of a market with such characteristics[4] encourages the configuration of tacit collusion[5]. Once this link is established, we will analyze if by discouraging the facilitating practices that lead to an anticompetitive behavior of firm's actions it is possible to shorten the line between punishing explicit collusion and the independent action of firms within oligopolies[6]. This will help us to determine if competition law is able to discourage tacit collusion to occur.

Even when competition authorities do not consider proscribing oligopolies or any market structure in particular, tacit collusion is likely to arise in an oligopolistic market structure[7]. For

3 Whish, Richard & Bailey, David. *Competition Law* 7th edition. P. 559.

4 Making emphasis on the interdependence of firms as the leading characteristic in the decision-making process of firms within the oligopoly.

5 See OECD Glossary if statistical terms "Conscious Parallelism": "(…) *The problem arises more from the nature of the market or industry structure in which firms operate than from their respective behaviour." https://stats.oecd.org/glossary/detail.asp?ID=3172*

6 Gutierrez, Juan David., *Tacit Collusion: Theory and Case Law in Argentina, Brazil, Chile, Colombia and Panama (1985 - 2008)* in "Revista de Derecho de la Competencia. Bogotá (Colombia), p. 315.

7 Although oligopolies are not forbidden, some conducts surrounding this type of market structure are considered illegal by authorities. As mentioned by Gutierrez, "*competition laws do not prohibit the existence*

instance, the concentration of the market –among other factors that will be pointed out through the document- is an intrinsic characteristic of an oligopolistic market structure, as it is also one of the structural factors that lead to collusion as mentioned by Massimo Motta[8].

Factors such as Barriers to entry, market transparency, similar cost structures, among others, make markets prone to collude[9]. The problem arises when those conducts take place without any kind of agreement and the effects are the same as if firms were explicitly colluding. An extensive literature has dealt with the problem of proving and distinguishing when firms in an oligopoly are actually colluding or it is a legitimate oligopolistic behavior and if the latter should be punished or not by competition law[10]. This is why two topics on this regard will be analyzed: First, the literature on the oligopoly theory, including the so –called Turner Posner– debate which is focused on the discussion of punish or not tacit collusion as well. Second, the analysis of Game theory used to explain the typical behavior of firms within an oligopolistic market. The analysis of the literature on how firms act in an interdependent way in markets with few competitors will contribute to determine the link between oligopolies and tacit collusion.

By analyzing the connection between oligopolies and tacit collusion, we will get some hints regarding possible ways to

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of oligopolies, but consider agreements on prices, quantities and other relevant variables of competition as illegal conducts". Gutiérrez, Juan David, Revista de Derecho de la Competencia. 2009. p. 310.

8 "Collusion is the more likely the smaller the number of firms in the industry." Motta, Massimo. *Competition Policy: Theory and practice.* p. 142

9 Jones, Alison & Sufrin, Brenda, EU Competition Law, Fourth edition. p.787-788

10 Also called as "False Positive". See Gutierrez, Juan David., *and Tacit Collusion: Theory and Case Law in Argentina, Brazil, Chile, Colombia and Panama (1985 - 2008)* in "Revista de Derecho de la Competencia. Bogotá. p.323

discourage tacit collusion. Under this particular analysis, it will also be important to consider the EU legal framework which deals with tacit collusion. Particularly, the interpretation of Article 101(1) and 102 of the TFEU will be relevant, since authorities have considered that reduction of consumer welfare and the collusive outcomes around tacit collusion might fall within the scope of the articles mentioned above of the TFEU. The efficiency of those articles to tackle tacit collusion and the interpretation given by the relevant case law will help us understand how the authorities (European Commission-EC, European Court of Justice-ECJ, Courts of the EU Member States and Competition Authorities-CA) have prosecuted tacit collusion. Considering the difficulties that tacit collusion has shown to competition authorities regarding detection and punishment, and the cumbersome task of proving when a given market is in the presence firms tacitly colluding, we will consider of all the above-mentioned elements to draw some remarks regarding the ability for competition law to discourage tacit collusion based on the existing law and literature.

I. Definition of concepts: ¿why talking of tacit collusion and oligopolies?

In order to tackle the issue of this document appropriately, it is necessary to start by answering why it is relevant to talk about oligopolies when addressing tacit collusion and how the latter works. The starting point of the analysis is the concept of oligopoly as a market structure that entails the incidence of certain conducts, after which the concept of collusion will be addressed.

In oligopolistic markets, it is likely that collusion arises under certain conditions. Moreover, because of the characteristics of the oligopoly, it is also likely to detect collusive outcomes after unconsciously parallel behaviors, which bring us to the concept of tacit collusion. As Petit[11] mentions "*under certain conditions, oligopolists can coordinate their prices (and/or any other variable) and jointly achieve supra-competitive profits at the expense of consumer welfare, without, however, entering into any institutional arrangement.*"

The purpose of this first part is to offer an overview of the two concepts that will set the ground for developing the idea of tacit collusion and how competition law can discourage it.

1.1. OLIGOPOLY THEORY AND THE RELATION WITH TACIT COLLUSION

Oligopolies are markets with few firms who are aware of the interdependence between each other regarding their actions on prices and output within the market. The keyword of this definition is interdependence[12] which makes firms take their decisions based on the actions of the other firms.

This is the most common market structure considering that normally companies must take into account the possible decisions of their rivals in order to define their own commercial strategy, while they must simultaneously adopt their price decisions or quantities that they will and are aware that such decisions will influence those that their competitors can adopt[13].

11 Petit, Nicolas, The oligopoly problem in EU competition law; *Handbook on European Competition Law Substantive Aspects* Chapter 7 p. 260

12 Further explanation of this concept of interdependence will be addressed in the following Section of this chapter.

13 Quintana Sánchez, Eduardo, *"Tratamiento De La Colusión Tácita En El Perú: Marchas y Contramarchas"* in *"Revista de Derecho de la Competencia Vol. 4, No. 4. Enero–diciembre 2008. ISSN: 1900-6381 p. 124*

1.2 The Oligopoly problem and the interdependence

According to Whish & Bailey, and as seen before, *"some oligopolies are benign in terms of competition"*[14] and others may lead to anticompetitive results.

Literature has identified certain particularities in oligopolies, so it is feasible to think that the characteristics in which a market as such operate, in some cases, make firms involved in it to restrain from competing in price and other ways. In addition, it is possible to think that they are able to earn supra-competitive prices without having an agreement in the sense of the provisions of competition law that forbid them.

Considering that any change made by a firm in an oligopoly has an effect on its rivals, they will tend to act according to the actions made by others in the market. For instance, in an oligopoly when a firm reduces its prices, consumers will notice it, and the comparison with rival firms within the market offering the same product will probably make costumers feel attracted by the firm who made the cut. Thus, the affected rival firms will need to act accordingly and attempt to match the actions made by the firm that first made the cut. This explains how firms in an oligopolistic market almost depend on each other and this is why literature talks about interdependency or *"oligopolistic interdependence"*. As mentioned by Whish & Bailey rivals *"are acutely aware of each other's presence and are bound to match on another's marketing strategy"*[15]. This can be evidenced in situations as price cuts. In oligopolies, reduction of prices by one firm will cause an effect on the customers of the rival firms as it will attract them, forcing rivals to react by attempting to match the price cut made by the first firm.

14 Whish, Richard & Bailey, David. p. 561

15 Ibid.

Given the interdependence, at the moment a firm is adjusting its behavior to match their rivals, it is possible to end up charging a price that boosts their profits to a supra-competitive level without even entering into an agreement or having any kind of explicit communication. Interdependence allows firms to achieve a monopolistic level of prices and profits which at the same time discourages competition and turn the market static as there is no incentive to innovate, change marketing models or even compete. The described scenario helps us understand how tacit collusion may arise[16]. According to Whish & Bailey:

> "There does not need to be any communication: the structure of the market is such that, through interdependence and mutual self-awareness, prices will rise towards the monopolistic level. Also the non-competitive environment in which oligopolists function will enable them to act in an inefficient and wasteful manner" [17].

The oligopoly problem arises in an effort to give name to the effects on the market that the interdependence creates. The oligopoly problem has been named in several ways by academics both in the economic and the legal field[18].

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16 Given the discussion concerning the terminology of the concept, Competition law's book of Whish & Bailey decided to call it tacit coordination. Cfr. P. 562

17 Ibid. p. 561

18 As mentioned by Petit in its work on the oligopoly problem: *"Scholars tag many labels on the oligopoly problem: conscious parallelism, parallel conduct, parallel pricing, oligopolistic pricing suits, tacit collusion, tacit coordination, implicit collusion, imperfect cartels, non-cooperative collusion, tacit coordination, coordinated effects, self-enforcing collusion, and so on. A common thread to those qualifications is to use two-word expressions which combine a process component (tacit, implicit, conscious, imperfect, self-enforcing, and so on) and an outcome component (collusion, coordination, parallelism, and so on). Whilst lawyers often use expressions referring to 'parallelism', economists seem to prefer the concept of 'collusion'."* Cfr. - Petit, Nicolas, The oligopoly problem in EU competition law; Handbook on European Competition Law Substantive Aspects Chapter 7 p. 284

Although firms have their own rationality to decide their course of action, they also take into account their rivals' strategies to adjust their own. This will result in firms considering whether to cooperate or not.

1.2.1 Cooperative oligopoly

The first scenario of firms cooperating is called "*cooperative oligopoly"*[19]. Since oligopolies are markets where few firms interact having market power[20], they can decide if they cooperate to maximize profits and minimize competition among them. Under this circumstance of cooperation is where the concept of explicit collusion appears. The literature defines the general concept of collusion as a concerted practice that allows firms within a market to coordinate their behavior in order to restrain competition between them. By virtue of this, firms achieve a collusive outcome that at the end is represented in supra-competitive prices. These collusive outcomes result from the express communication among firms[21].

Starting from the basis of a concerted practice, there are two *"first-stage"* elements that should be recognizable in order to

19 González de Cossio, Francisco, *"A cooperative or collusive oligopoly exists when economic agents cooperate with the aim of minimizing competition between them. The cooperative oligopoly can be implemented through the use of diverse strategies that allow economic agents to achieve same price levels and supply that a monopolist would produce or a cartel that works perfectly."* In "Collusion: system, problems and experience" (Free translation) Retrieved from https://revistas.juridicas.unam.mx/index.php/derecho-privado/article/view/8982/11032

20 Whish, Richard & Bailey, David. *"Market power exists where a firm has the ability profitably to raise prices over a period of time, or to behave analogously for example by restricting output or limitating consumer choice."* *Competition Law* 7th edition. p 42.

21 Harrington, J.E. Jr. (2012). "*A Theory of Tacit Collusion*" p. 2 retrieved from http://www.tse-fr.eu/sites/default/files/medias/stories/sem_12_13/eco_theo/harrignton.pdf

make an agreement operational. First, there must exist the possibility to access information of the competitor's conditions of sales regarding quantities, prices and other general terms of sales and second, firms within the collusive agreement must be able to detect if that information previously known by firms was applied to the market[22] to get the expected outcome.

Once the agreement is operational, firms participating in it might be tempted to deviate. According to Motta (2003), this particular circumstance leads us to identify two more elements[23] as follows: First, the possibility of participant firms to detect deviation and second, the punishment for firms deviating from the agreement. This brief explanation of the elements of collusion denotes the presence of one key element, which is coordination.[24] As mentioned by Motta coordination works in explicit collusion by indicating that *"firms can talk to each other and coordinate on their jointly preferred equilibrium without having to experiment in the market, which is costly"*. Hence, as firms get to an agreement through communication, they are able to set the conditions explicitly.

1.2.2 Non-cooperative oligopoly

Conversely, there are other types of oligopolies, namely the so-called *non-cooperative oligopoly*. When firms do not cooperate and consider the actions of their rivals, the literature name this also as a non-collusive oligopoly. As mentioned in the introduction of this Part 1 of the document, Petit[25] mentions that under

22 Quintana Sanchez, Eduardo, *"Tratamiento De La Colusión Tácita En El Perú: Marchas Y Contramarchas"* in *"Revista de Derecho de la Competencia Vol. 4, No. 4. Enero – diciembre 2008. ISSN: 1900-6381 p. 127*

23 Motta, Massimo, *Competition Policy: Theory and practice.* p. 139-140

24 Ibid.

25 Op. cit.

some circumstances firms may coordinate achieving supra-competitive profits without having an explicit agreement and it may generate what the economists call a *"market failure"* of the oligopolies, meaning with this the possibility of finding anticompetitive practices.

When firms act in a non-cooperative way and competitors are able to adjust their behavior intelligently according to their rival's actions without having to communicate is when tacit collusion is likely to occur. In this scenario, firms competing in a market with few competitors must be careful in order to choose the proper strategy. This can only be achieved by taking into account the behavior of its competitors, starting from the premise that each individual competitor has market power which allows them to affect the price in the market and also the profits for each of its rivals to take a course of action that benefit firm's interests.

This is behavior explains the rationality behind oligopolies. However, firms acting intelligently to anticipate or to react to the actions of competitors does not entail that firms are colluding. This only shows how interdependence works as firms are individually looking for maximizing their businesse's profits based on their competitor's actions. If a firm is conscious of the effects that acting intelligently has on rivals, it is considered conscious parallelism, which may generate driving prices up to a monopolistic level.

The previous explanation set the ground to give a brief overview of the main theories of oligopoly that help us explain the phenomenon of tacit collusion.

1.2.3 Cournot model

The model of Augustin Cournot is an example of non-cooperative oligopoly. Under this model, firms tend to get to an equilibrium of price and quantity based on the actions or their competitors, for instance, in the case of prices the trend would be that it get to the marginal cost as the number of sellers upsurge[26]. Therefore, the more concentrated is the market it is more likely to find collusive outcomes, or in other words, the least concentrated is the market the more likely that prices get closer to a competitive level[27]. The important thing about Courrnot's theory is that prices tend to find equilibrium by virtue of firms actions, showing that interdependency is a key aspect when we are talking about oligopolies and tacit collusion.

1.2.4 Chamberlin

As quoted in *Petit's* paper[28], Chamberlin states that independent interaction of two different firms may eliminate price competition without the presence of any kind of agreement between firms. Paraphrasing Chamberlin's words, firms within an oligopoly act intelligently always looking to maximize their profits. These intelligent actions have an effect on competitors. Hence, if a firm makes a cut of their prices it may lower their profits, therefore none of the firms will cut and equilibrium appears as if firms were colluding by virtue of an agreement. This equilibrium turns out being the so-called conscious parallelism that may cause that prices reach a monopolistic level, turning into tacit collusion.

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26 This is explained by economists as the "Law of diminishing marginal returns" which states that *if one input in the production of a commodity is increased while all other inputs are held fixed, a point will eventually be reached at which additions of the input yield progressively smaller, or diminishing, increases in output."* Retrieved from https://global.britannica.com/topic/diminishing-returns

27 González de Cossio, Francisco. "Collusion: system, problems and experience" p. 82

28 Op. Cit. Petit. p. 262

1.3 ACADEMIC POSTURES ON TACIT COLLUSION (SCHOOLS)

Having the brief concept of the previous two models, the literature has witnessed how academics have tried to tackle antitrust issues and, in this particular case, the factors that produce the effect of tacit collusion based on the relation of firms in the market and prices. The Harvard and Chicago schools have tried to identify those factor based on two different theories.

1.3.1 Harvard School

Harvard school states that there is a relation between achieving supra-competitive profits and the market structure, considering that oligopolies achieve supra-competitive prices because they have an unreasonable degree of market power[29]. Therefore, there must be a high grade of concentration as market power is pivotal to achieve the supra-competitive profits.

This school supposes that the results of the abovementioned correlation is comparable to monopolies. The existence of monopolies, from my perspective, does not entails an adverse outcome for the market. Nevertheless, according to Harvard School an oligopoly can be likened to a *"shared monopoly"* among other terms.

To sum up, Harvard school's perception is that oligopolies are prone to tacitly collude by virtue of the concentrated market structure[30].

29 Ibid. p. 263.

30 Ibid. p. 276

1.3.2 Chicago School

The Chicago School argues that oligopolies yield efficiencies as part of their market structure. Hence, the explanation for achieving supra-competitive profits is due to a superior efficiency. Having George Stigler as one of the representatives, in his view, tacit collusion needs more than the mere concentration of the market. Instead, he argues that for tacit collusion to occur it is necessary that demanding conditions appear, meaning with this that oligopolists shall detect and control the adherence to a collusive agreement[31].

On the other hand, and different to what Stigler states, Richard Posner broadens the spectrum of analysis and affirms that tacit collusion emerges when there is market concentration, inelasticity on demand, barriers to entry, etc. However, he later affirms that tacit collusion, as well as explicit collusion, appears after a number of undefined range of economic characteristics are met, as it is cited in the work of Petit[32.]

Comparing the postures of the Chicago school with the scholars from Harvard, it is possible to say that the former understands the phenomenon of tacit collusion as the convergence of several factors including conditions of the market and particular conditions to collude. While the Harvard school led us to conclude that tacit collusion emerges by the sole existence of the conditions of an oligopolistic market.

The discussion of the factors that trigger tacit collusion causes difficulties on the authorities when they are trying to prosecute what they think is an anticompetitive behavior. This problem of identification may lead to two burdensome situations. The first is that enforcers may sanction a legitimate behavior originated in

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31 Ibid. p. 264.

32 Nicolas Petit refers to this broader concept quoting Posner's "Antitrust Law: and Economic Perspective; Chicago. University of Chicago Press.

the flow of the market, and the second is that truly anti-competitive conducts are not detected and therefore will not be punished. Gutierrez[33] explains this as follows:

> CA's must enforce competition laws in markets where it is difficult to distinguish between conducts originated in collusive agreements among competitors from the behavior of interdependent firms that take unilateral decisions to adapt to the conditions of the market or anticipate their competitor´s decisions. The latter implies a high risk of enforcement errors, either by sanctioning legitimate behavior (false positives) or by failing to detect true anticompetitive practices (false negatives).

This explanation allows us to understand the problematic of identifying the conducts in oligopolies, reinforcing the importance of taking oligopolies as the base to understand tacit collusion and how interdependence is key to understand the origin of this controverted issue.

II. GAME THEORY AND THE OLIGOPOLY PROBLEM

One useful tool that helps us demonstrate the occurrence of tacit collusion and the identification of it in oligopolies, in accordance with Chamberlin's theory, is the application of game theory. By using Prisoner's Dilemma and the Nash Equilibrium[34], it is possi-

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33 Gutierrez, Juan David., *Tacit Collusion: Theory and Case Law in Argentina, Brazil, Chile, Colombia and Panam*á *(1985 - 2008) p. 323.*

34 See http://www.investopedia.com/terms/n/nash-equilibrium.asp "*The Nash Equilibrium is a concept of game theory where the optimal outcome of a game is one where no player has an incentive to deviate from his chosen strategy after considering an opponent's choice. Overall, an individual can receive no incremental benefit from changing actions, assuming other players remain constant in their strategies. A game may have multiple Nash Equilibria or none at all."* In this particular scenario of firms within an oligopoly, the Nash Equilibrium refers to the fact that each firm will act based on the behavior of the other firms and will get a benefit from it. Therefore, any deviation from this is not considered by firms.

ble to examine how firms behave under certain circumstances, thus supporting the oligopoly problem. The analysis of the oligopoly problem with this method shows that any firm acting for its own interest may coordinate their actions and also how there is always an incentive to act depending on the actions of third parties (firms).

Suppose there is a market where there are two firms, X and Y, having each of them the possibility to act in two ways regarding price, outputs or any other factor. For this example, both firms will have the opportunity to charge either a high or a low price. Each of them will make their decision individually and without any communication with the other firm whatsoever. According to the postulate, the possible scenarios are: 1. Both firms charge a high price, 2. Both charge a low price, 3. Firm X charge a high price while firm Y charge a low price or vice versa.

The next figure will show the possible outcomes in each scenario:

Firm X	**Firm Y**	
	High price	**Low price**
High price	***a.*** 300 and 300	***b.*** 0 and 500
Low price	***c.*** 500 and 0	***d.*** 100 and 100

According to the figure, both X and Y would prefer to charge a high price so they can get the highest profits (or benefits) possible. Both firms will prefer to individually charge a high price considering that the scenario where one of them charges a low price will result in the other also lowering their price which results in both firms getting 100 (box *d*) instead of 300 (box *a*). If firm X charges a high price, the best alternative for firm Y will be to charge the lowest price possible. This way Firm X will get no profits while Firm Y will attract consumers by choosing the low price and vice versa (boxes *c* and *b*).

As we can see, the prisoner's dilemma and the possibilities of firms in the abovementioned scenario helps us understand that decisions made by firms in oligopolies are influenced by the simple expectation regarding the behavior of the other firms. In other words, interdependence is present in markets with few firms as the oligopolies. Thus, the oligopoly problem can be supported with the previous example. Although the best outcome for firms would be if they would be able to communicate and coordinate their behavior, coordination without communication is possible as seen in scenarios of box *a* and *d*.

As it is mentioned before in this document, when firms act intelligently it is an example of the model proposed by Chamberlin which is also a non-cooperative oligopoly. The theory of non-cooperative oligopolies in relation with game theory starts from the premise that there is an interdependence of strategies. Each firm will be unconventionally convinced that their chosen strategy will be the best in response to the other strategies. This will result in an equilibrium of strategies which are *noncooperatively* optimal. Therefore, it may appear that these strategies are collusive given the similarity and the optimal results[35].

III. THE TURNER-POSNER DEBATE

Keeping the discussion of the identification of conducting behavior that leads to collusion, the Turner–Posner debate gives us a glimpse of what happens in the different scenarios regarding the prosecution of tacit collusion by authorities. This debate will help us to comprehend when we are in front of a genuine interdependence of firms within oligopolies. The principal issue of the de-

35 Dennis A Yao, Susan S. DeSanti. Game Theory and the legal analysis of tacit collusion. Game Theory and the Legal Analysis of Tacit Collusion [article] Antitrust Bulletin, Vol. 38, Issue 1 (Spring 1993), p. 123

bate is whether or not to punish firms that act in a parallel way. *¿Should this be considered as collusion or an effect of a regular competitive practice?* This debate is held by two recognized US academics, Donald Turner[36] and Richard Posner who mutually argue about this issue in the light of the Sherman Act[37] Section 1[38].

3.1 TURNER'S POSTURE

Turner states that conscious parallelism[39] differs from an agreement as it obeys to the individual response of competitors to the economic circumstances[40]. Therefore, this should not be considered as restrictive for competition and neither as a violation of the Sherman act antitrust provision[41]. Under Turner's arguments, the natural flow of the market in oligopolies make firms to act in a rational way creating the oligopolistic interdependence. Conscious

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36 Turner, Donald F., the Definition of Agreement under the Sherman Act: Conscious Parallelism and Refusals to Deal; Vol. 75, N° 4. Harv. L. Rev., Feb 1962, p. 661.

37 "*The Sherman Anti-Trust Act is landmark 1890 U.S. legislation which outlawed trusts, then understood to mean monopolies and cartels, to increase economic competitiveness."* Retrieved from http://www.investopedia.com/terms/s/sherman-antiturst-act.asp#ixzz4amxZ3tfP

38 *Every contract, combination in the form of trust or otherwise, or conspiracy, in restraint of trade or commerce among the several States, or with foreign nations, is declared to be illegal. Every person who shall make any contract or engage in any combination or conspiracy hereby declared to be illegal shall be deemed guilty of a felony, and, on conviction thereof, shall be punished by fine not exceeding $100,000,000 if a corporation, or, if any other person, $1,000,000, or by imprisonment not exceeding 10 years, or by both said punishments, in the discretion of the court.* Retrieved from https://www.law.cornell.edu/uscode/text/15/1

39 Same connotation of tacit collusion as used by US Courts.

40 Turner, Donald F., the Definition of Agreement under the Sherman Act: Conscious Parallelism and Refusals to Deal; Vol. 75, N° 4. Harv. L. Rev., Feb 1962, p.663

41 Gutierrez, Juan David., *Tacit Collusion: Theory And Case Law In Argentina, Brazil, Chile, Colombia And Panama (1985 - 2008)* p. 315

parallelism exclude the concept of agreement if it obeys to the natural and independent response of competitors to the market. Consequently, any attempted remedy to avoid oligopolistic interdependence will entail firms to act irrationally in order to avoid any behavior susceptible of being sanctioned.

The summary of the theory proposed by Turner in its work[42] regarding conscious parallelism and collusive agreements is as follows:

1. When there is no evidence that the parallel actions were made *"contrary (...) to the apparent individual self-interest"*[43], it cannot be said that Conscious parallelism was product of an agreement.
2. If competitors are simply responding to the same circumstances, regardless of what the other competitors do, is not possible to say that conscious parallelism implies an agreement. Conversely, it would be reasonable to say that conscious parallelism involves an agreement when the decision of each competitor depends on what each other competitors decide to do.
3. In order to consider the kind of agreement derived from interdependent decisions as illegal these two questions need to be answered: *"(a) is the conduct the rational exploitation of the profit potential of a current oligopoly position; or is it, on the contrary, restrictive conduct which protects or augments market power or extends it into other markets? and (b) Is it possible to effectively restrict the conduct to boost competition without making courts to involve in a regulatory function?"*

Posner summarize the theory of Turner with two simple and effective questions: *"Is interdependence agreement?" and "if so*

42 Op. Cit. P. 681

43 Ibid

is it unlawful agreement?"[44] This to conclude that according to Turner *"there is no effective remedy (...) against oligopolistic interdependence"*.

Turner's posture suggests that decisions in oligopolistic market structures should be driven by the normal flow of that particular economic structure and any interference from competition authorities may imply that authorities would end in a process of price regulation. Hence, tacit collusion should not be attacked from the perspective of competition law, particularly from the provisions of the Sherman Act.

3.2 POSNER'S POSTURE

Contrarily, Posner's theory[45] explicitly confronts Turner's approach. Posner discards the oligopoly problem and instead proposes that both concentrated markets, as oligopolies are, and achieving supra-competitive prices are elements related to cartels.

He states that it is inadequate to say that *"oligopolists are interdependent as to price and output"*[46]. Therefore, tacit collusion and cartels are put on the same side of the balance and hence, it is possible to think that both explicit and tacit collusion can be attacked under section 1 of the Sherman Act. Posner also considers that the punishment for a firm tacitly colluding should be the same as the firm expressly colluding given that both are a voluntary behavior.

To support his opinion, Posner identifies some problems when applying Sherman Act to tacit collusion.

1 "Establishing the requisite degree of agreement". In Posner's view, there is a *"meeting of the minds"* between firms. When

44 Posner, Richard A., Oligopoly and the antitrust laws: a suggested approach, 21 Stanford Law Review, 1969, p. 1564

45 Ibid.

46 Ibid. p. 1575

a firm restricts outputs is making an offer and the acceptance is materialized when its rivals do the same[47]. That is why on this regard Posner states that tacit Collusion by oligopolists should be punished as *"it is a concert of firms for the purpose of charging monopoly prices and extracting monopoly profits"*[48].

2. *"Proving to the degree of certainty required by courts"* that firms have been tacitly colluding. Although Posner affirms that tacit collusion is equivalent to an agreement or a *"concert of firms"* to achieve monopoly profits, he is aware of the difficulty of establishing tacit collusion without any proof of an agreement, implementation, or enforcement.

   To demonstrate collusion, Posner proposes several types of evidence: a) Proving a pattern of systematic price discrimination[49]. b) Prolonged excess of capacity over demand. c) Reduction of changes in the market price as it is infrequent under circumstances of firms competing on a normal basis. d) Unusual profits and price leadership. This evidence should be handled carefully according to Posner, considering that evidence on profits may obey to other circumstances other than collusion. The Same situation occurs with price leadership. e) Fixed market shares for a substantial period of time. e) Refusal to offer discounts despite substantial excess capacity. f) Announcement of price increases far in advance, without justification for doing it. g) Public statements in consideration to what should be considered as the right price that the industry should maintain.

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47 Ibid. p. 1576

48 Ibid. p. 1578

49 According to Posner, discrimination must be in the economic sense, not the legal definition. "A pattern of selling in which the ratio of price to marginal cost is not the same for all sales of a commodity." Ibid. p. 1578

3. *"Eliminating violations once they have been proved".* Regarding the issue of the effectiveness of Sherman Act provision to change the conduct of firms that are tacitly colluding, Posner considers that even when *"punitive sanctions are a necessary element of an effective rule against price-fixing" there is a "deficiency in the penalty structure of the price-fixing prohibition"*[50]. Nevertheless, it is necessary to prohibit tacit collusion under the Sherman Act. In extreme cases, Posner considers that the appropriate remedy for firms that have been discovered as colluders is the dissolution, bringing this up as a remedy regarding the market structure and not the behavior itself. As noted in his own words:

> *"It is no objection that dissolution is addressed to market structure rather than behavior. (...) non-competitive pricing is very much a function of the structure of the market; even express collusion is rarely practicable in markets that are not oligopolistic in structure. The possibility of dissolution should provide an additional deterrent to tacit collusion"*[51].

To sum up, Posner's posture is based on the premise that tacit collusion is facilitated by the market structure and it can be effectively attacked with the provisions of competition law, and particularly under proceedings of Section 1 of Sherman Act.

IV. FACTORS THAT FACILITATE TACIT COLLUSION

Once seen an overview of the explanation of tacit collusion from the perspective of oligopolies as the enabling environment for this to occur, it is necessary to step into the analysis of the factors or practices that facilitate tacit collusion. The so-called facilitating

50 Ibid. p. 1590

51 Ibid. p. 1591

practice is defined "as an activity that makes it easier for parties to coordinate price or other behavior in an anticompetitive way"[52].

The OCDE Roundtable on Facilitating Practices in Oligopolies[53], held in 2008, defines facilitating practices as a conduct that *"falls somewhere between an explicit, "hardcore" cartel agreement and pure and simple oligopolistic interdependence"*. The definition given in the roundtables is:

> *"The concept of "facilitating practices" refers to conduct by firms, typically in an oligopolistic market, which does not constitute an explicit, "hardcore" cartel agreement, and helps competitors to eliminate strategic uncertainty and coordinate their conduct more effectively. Information exchanges are the most common facilitating practice, but competition authorities have investigated a wide range of other practices as well".*

Based on the definition given by the OECD, these practices are by themselves the key to determine whether a conduct in oligopolies may set the conditions for tacit collusion or simple oligopolistic interdependence. Considering that the literature and different authorities have considered several practices to determine in each case what should be considered as a facilitating practice, we will describe some of the more relevant and discussed situations.

Regarding tacit collusion, it is important to mention that, although oligopolistic interdependence allows competitors to adjust their behavior without an agreement or communication between firms, not all oligopolistic markets are conducive to tacit collusion[54]. This is why it is relevant to determine the possible circum-

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52 Dennis A Yao, Susan S. DeSanti. Game Theory and the legal analysis of tacit collusion. Game Theory and the Legal Analysis of Tacit Collusion [article] Antitrust Bulletin, Vol. 38, Issue 1 (Spring 1993), p. 120.

53 Cfr. Facilitating Practices in Oligopolies 2007. P. 9 https://www.oecd.org/daf/competition/41472165.pdf

54 Quintana Sánchez, Eduardo, *"Tratamiento De La Colusión Tácita En El Perú: Marchas Y Contramarchas"* in *"Revista de Derecho de la Competencia*. p. 133

stances that lead a market to be prone to tacit collusion[55]. The followings are called endogenous market factors:

a) **Barriers to entry**
The fewer competitors in the market the easier is to keep prices and collusive outcomes derived from tacit agreements. If the number of firms grows, the possibilities to deviate grows equally and the capability to sustain supra-competitive prices will reduce. Hence, keeping barriers to entry allows firms within the market to maintain the profitable conditions without rivals that may offer a lower price in the market and get profits from it. In the words of Massimo Motta[56], "The easier entry into an industry (the lower entry barriers), the more difficult to sustain collusive prices".

b) **Concentration**
It is more likely that firms get to an agreement (explicit or tacit) when the market has a small number of firms. In the same way, if firms within a concentrated market have the same capacity, products and costs, it will be more likely that coordination appears among them. According to Motta[57], based on a comparison of gains and losses from deviation, when there are many firms in the market, and one of them deviates it is possible that this firm get all the market for itself and the gains compensate the punishment of deviating. Contrarily, when there are few or only two firms, at a collusive stage, each firm gets half the market and the gains from deviating are smaller if compared to the lower profits that will get due to the punishment for deviating.

55 Cfr. Ibid.

56 Cfr. Motta, Massimo, *Competition Policy: Theory and practice. Chapter 4 p. 8*

57 Cfr. Ibid. *p. 6*

Motta to complement the idea of concentration as a structural factor states that "If firms are symmetric, a lower number of firms is equivalent to a higher degree of concentration, which is therefore associated with more likely (tacit or explicit) collusion".

c) **Product Homogeneity**
Having products with similar characteristics or standardized, so there is not much differentiation between them, the possibilities for firms to compete with the other firms in the same market diminishes, so firms are able to adjust their behavior to the others. Contrarily, as differences appear, the less likely is to achieve a collusive agreement. For instance, when products are different, a collusive environment cannot punish deviators. In the example given by Motta regarding this factor, any reduction of process decided by rivals will give an advantage to the deviant as this firm will have a differentiated product with a more favorable price distant from their rivals. However, this could be a *double-edged sword* as the deviation may significate fewer profits to the deviator firm.

d) **Demand power or buyer power**
Buyers or consumers can use their bargaining power to promote competition among firms. This power comes from concentration of buyers[58]. When consumers chooses to buy only from one of the firms based on their preferences, this will make other firms to attempt to catch the same segment of buyers creating a favorable environment for competition. When buyers are not interested in the same segment or characteristics of products they do not have the same bargaining power and this allows firms to maintain more efficiently a collusive outcome.

e) **Price Transparency**
This is one of the most relevant factors, which facilitates tacit collusion as it allows competitors to know the behavior

58 Ibid. *Chapter 4 p. 9*

of rivals. When operations of firms are made without being noticed or informed to their rivals, it is less likely that other firms adjust their behavior without express communication. Hence, transparency on prices allows rivals to know the behavior of their competitors in the market[59]. For instance, when there are trade associations, the exchange of information between firms has the potential to turn into collusion[60].

When firms communicate their prices and information of business publicly, permits competitors to be aware if the firms are acting as expected in a collusive behavior, with or without an agreement. Therefore, firms that notice any deviation in a transparency scenario are able and will have the argument to retaliate.

For transparency to be effective and fully useful, it is necessary to be sufficiently detailed so it can produce the effect of influence and give a certain ground or benchmark to competitors in order to decide their own strategies. It will also be important to get the information timely so firms can mutually adjust their behavior. Nevertheless, transparency itself does not mean the existence of a collusive behavior neither an anti-competitive practice, for instance, when both consumers and firms are aware in a public manner of the transparency in the market[61]. In the words of Motta "whereas announcements directed to rivals only should be forbidden, announcements about current and future prices which carry commitment value vis-à-vis consumers should be regarded as welfare enhancing."

Petit mentions in his work on the Oligopoly problem other factors called "exogenous market features" on which the litera-

59 Quintana Sanchez, Eduardo. p. 135

60 Cfr. Motta, Massimo, *Competition Policy: Theory and practice. Chapter 4 p. 15*

61 Ibid. p. 20

ture has not been unanimous. Some of those factors are: Most favoured Customer clauses, information exchange agreements, price leadership, joint ventures, standard form contracts and others. There is a wide range of economic factors determining tacit collusion as it has been analyzed by the literature. However, for the purposes of the scope of this paper, we addressed a few of them considered as the more relevant in determining this conduct.

As mentioned by the OECD[62] *"the objective of certain facilitating practices was not to restrict competition, but if they nevertheless created a risk for competition, it may be justified for competition authorities to intervene"*. Therefore, the facilitating practices by itself do not entail that identifying on of them within the market will turn the activity as restrictive for competition, much less it is an indefectible symptom of tacit collusion.

Notwithstanding the considerations of the OECD, after looking at the effects of each of the cited facilitating practices, discouraging those conducts might help to shorten the line between punishing explicit collusion and the independent action of firms within oligopolies. The identification of this conducts within an oligopoly will help authorities to set the ground for an investigation in an oligopolistic market that seems to be affected by any restriction of competition.

V. Tacit Collusion under Articles 101(1) and 102 of the TFEU and the EUMR

Within the scope of the EU normativity, the starting point regarding competition law is Articles 101 and 102 of the TFEU. These two provisions concerning the control of conducts respectively deal with: the prohibition of agreements and concerted practices

62 https://www.oecd.org/daf/competition/41472165.pdf p. 156

(Collusion)[63] and the prohibition of the abuse of dominant position[64]. However, it is a recurring subject the evaluation of these provisions regarding the effectivity to tackle a non-cooperative oligopolistic behavior (tacit collusion).

For instance, considering that Article 101 of the TFEU starts from the premise of an agreement, any punishable circumstance under this provision will need to prove actual collusion, and in that scenario, tacit collusion or tacit agreements would not be covered by the provision. Thus, any parallel behavior will need to

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63 Article 101 of the TFEU:

"*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."

64 Article 102 of the TFEU:

"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."

be considered as a concerted practice. The same problem encompasses the application of Article 102, considering that the provision requires dominant position to be proved which seems to be said from monopoly conditions or the abuse of dominant position by firms individually.

5.1. Article 101 (1)

As it was previously mentioned, tacit collusion requires that firms start to act in a parallel manner without express communication for a period. Nevertheless, this behavior by itself does not *"amount to a concerted practice under Article 101(1)"*[65]. *"Concerted practices which arise out of parallel behavior do not necessarily mean that all parallel behavior results in a concerted practice"*[66]. Thus, the application of article 101 pursuing parallel behavior result troublesome.

5.1.1 Dyestuffs[67]

The ECJ have progressively discard the possibility of directly applying Article 101 to tackle tacit collusion. In this case, the EC sanctioned ten firms after founding them guilty of, according to the commission, unlawful concerted practice for applying, in three occasions and in different countries of the EU, general and uniform price increases. After the decision by the Commission, in the appeal, the ECJ confirmed the decision although the applicants argued that the Commission did not prove the existence of a

65 Whish, Richard & Bailey, David. Competition Law. p. 567.

66 Cfr. O'Malley, George *Tacit Collusion: An Analysis of the EU Legislative Framework*.

67 *Imperial Chemical Industries Ltd v Commission of the European Communities* hereinafter Dyestuffs.

concerted practice, even after founding that Dyestuffs producers met several times[68].

Even though, the ECJ and the Commission found in Dyestuffs[69] that evidence of explicit collusion was conclusive as "price rises were so simultaneous that it was impossible that they had not been previously agreed upon"[70], the ECJ also found that:

> *"Although parallel behaviour may not by itself be identified with a concerted practice, it may however mount to strong evidence of such a practice if it leads to conditions of competition which do not respond to the normal conditions of the market, having regard to the nature of the products, the size and number of the undertakings, and the volume of the said market".*

In the following cases, the ECJ stated that in the case of lacking of proof regarding direct or indirect contact between firms, they could adapt their behavior intelligently considering their rivals' conduct without violating the provisions of article 101[71]. This is an example of the postulates of a non-cooperative oligopoly behavior and Chamberlin's Model, as it was mentioned previously. In the same sense, the ECJ in the case of *Zuchner v Bayerische Vereinsbank*[72] stated that intelligent responses to the behavior of competitors would no bring a firm within the scope of Article 101[73].

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68 Petit, Nicolas, The oligopoly problem in EU competition law; *Handbook on European Competition Law Substantive Aspects* Chapter 7 p. 290

69 ICI v Commission. Cases 48, 49, 51-57/69 [1972] paragraphs 65 and 66.

70 Motta, Massimo, *Competition Policy: Theory and practice.* Chapter 4 p. 49

71 Previously article 81 of the Treaty of Rome. See Quintana Sanchez, Eduardo, *"Tratamiento De La Colusión Tácita En El Perú: Marchas Y Contramarchas"* in *"Revista de Derecho de la Competencia Vol. 4, No. 4. Enero–diciembre 2008. ISSN: 1900-6381* p. 139. Excerpt from the Sugar case: ECJ, Case 40/73, Suiker Unie and Others v Commission [1975] ECR 1663

72 Case 172/80 *Zuchner v Bayerische Vereinsbank AG* [1981] ECR 2021

73 See O'Malley, George Tacit Collusion: An Analysis of the EU Legislative Framework https://sjeldraft.files.wordpress.com/2014/05/tacit-collusion-an-analysis-of-the-eu-legislative-framework.pdf

5.1.2 Woodpulp[74]

In this case, the Commission found 43 producers of woodpulp guilty of concerted practices albeit not finding evidence of explicit agreements. The Commission decided that there was a concerted practice considering the following reasons: 1.-Finding evidence of direct and indirect exchange of price information, which created an artificial transparency on the market[75]. As it is mentioned before in this document, price transparency is one of the factors that facilitate tacit collusion as it allows competitors to know the behavior of rivals. 2. According to the analysis of the Commission, the market was not a narrow oligopoly in which parallel pricing would be expected.

After appealing, the ECJ annulled the findings of the Commission, considering from their perspective that: Regarding their first argument, pulp producers announcing price rises to users in advance, wasn't an infringement of Article 101. Information was available as users informed each other of the prices available. Secondly, regarding the market structure, the ECJ found that the market was more oligopolistic than supposed by the Commission, also considering that concertation was not likely as, for instance, market shares fluctuated, which is unlikely in a scenario of concerted practices.

As mentioned by Whish & Bailey, this judgment demonstrates how the burden of proof is on the Commission when it comes to proving the existence of a concerted practice if it depends exclusively on the conduct of firms[76].

However, this ruling also recognizes that, in some cases, parallelism would serve as proof of a concerted practice whenever

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74 Ahlström Osakeyhtiö v Commission of the European Communities (Hereinafter Woodpulp). Cases 89/85 [1993]

75 Whish, Richard & Bailey, David. Competition Law. p. 568.

76 Ibid. p. 569.

there is no other explanation for the parallel behavior to occur. In other words, parallel behavior would be considered as a proof if the existence of a previous agreement is the only way to explain the parallel conduct. The mere parallelism of conducts cannot sufficiently prove that there is a concerted practice, as it is required that there is at least some exchange of information among competitors or some reciprocity in the communication of the sales conditions between them. In oligopolies, it is expected that firms adapt their behavior according to the conduct of their rivals. Therefore, it is unlikely that a concerted practice would be the only explanation for parallel behavior. According to the ECJ[77]:

> *"71. In determining the probative value of those different factors, it must be noted that parallel conduct cannot be regarded as furnishing proof of concertation unless concertation constitutes the only plausible explanation for such conduct. It is necessary to bear in mind that, although Article 85 of the Treaty prohibits any form of collusion which distorts competition, it does not deprive economic operators of the right to adapt themselves intelligently to the existing and anticipated conduct of their competitors".*

Likewise and accurately Whish & Bailey states that competition *authorities "must avoid reaching a conclusion that a concerted practice exists if there is an alternative explanation of any parallel behavior"*[78].

Regarding the possible ways to address the issue of applying Article 101 to tackle tacit collusion, Motta cites *"the parallelism plus"* rule, which consists of finding illegal behavior whenever a facilitating factor accompanies parallelism[79]. Nevertheless, in Woodpulp, the exchange of price information was identified, along with parallel price movements, as one of the facilitating practices that proved

77 Woodpulp. Cases 89/85 [1993] par. 71

78 Op. Cit. p.569.

79 Motta, Massimo, *Competition Policy: Theory and practice.* Chapter 4 p.50

collusion in the concept of the Commission and later the ECJ found that price transparency was a practice introduced by request of their own customers. Accordingly, the ECJ annulled the decision of the Commission[80]. Therefore, it is not sufficient the use of the parallelism plus rule to argue the applicability of article 101 to attack tacit collusion. Although the analysis from the ECJ is inconclusive, it is possible to say that parallel behavior is not forbidden and it is not conducive to consider it a presumption for collusion, unless, as mentioned before, it is the only explanation to prove collusion.

The case law shows that Article 101 of the TFEU is not strictly suitable to attack tacit collusion and firms are allowed to adjust their behavior according to its rival's actions, as long as it is product of the strategy of the firm without any communication or contact with their rivals[81].

The main issue regarding the application of Article 101 by the Competitions authorities in the EU is the lack of hard evidence to support the prosecution of tacit collusion. However, evidence that firms have not been acting autonomously would lead to prove collusion, as Motta affirms:

> *"Firms might also sustain collusion without openly discussing prices or quantities, but coordinating so as to establish the environment that facilitates collusion. For instance, they might decide to exchange detailed price and quantity information via their trade association, or they might set up a forum where they can announce future prices to each other (...) or agree on a resale price maintenance scheme or other practices that make more uniform or transparent their prices. In all such cases, if there is evidence that firms have not acted unilaterally, firms should be found guilty of collusion"*[82].

80 Ibid.

81 Quintana Sanchez, Eduardo, *"Tratamiento De La Colusión Tácita En El Perú: Marchas Y Contramarchas"* in *"Revista de Derecho de la Competencia Vol. 4, No. 4. Enero – diciembre 2008. ISSN: 1900-6381 p. 142*

82 Motta, Massimo, *Competition Policy: Theory and practice.* Chapter 4 p.51

The scenario mentioned above would be the only one that allows authorities to have hard evidence to punish collusion under Article 101 of the TFEU. Nevertheless, the problem persists as authorities usually, and according to the ruled cases, have examined the economic factor related to the market structure.

5.2 ARTICLE 102

At first sight, tacit collusion is not a conduct suitable to the wording of Article 102. This Article does not encompass agreements between undertakings explicitly. However, Article 102 states that "*Any abuse by one or more undertakings of a dominant position*" is unlawful (Underline added). According to a broad interpretation of the quoted provision, Article 102 accepts that firms independently can be considered to hold a collective dominant position[83].

Normally, it is said that a dominant position is held by a single firm or undertaking (monopolies), so the interpretation includes independent companies that jointly hold a dominant position, as it is the case of oligopolistic markets. Thus, the concept of dominant position is not limited to firms within the same corporate group that forms a single economic entity. Therefore, it might sound reasonable to think that the prohibition of abuse of a collective dominance position will also discourage tacit collusion[84].

The broad concept of collective dominance including independent firms allows Article 102 of the TFEU to cover those behaviors that previously were only contemplated for firms that collectively formed a single economic entity.

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83 See O'Malley, George Tacit Collusion: An Analysis of the EU Legislative Framework https://sjeldraft.files.wordpress.com/2014/05/tacit-collusion-an-analysis-of-the-eu-legislative-framework.pdf

84 Op. cit. Quintana Sanchez, Eduardo. P. 143

5.2.1 Italian flat glass[85]

This case can be considered as a landmark regarding the applicability of Article 102 to tackle tacit collusion. In its ruling, the Commission argued that three Italian producers of flat glass divided the market between them by setting quotas of sales, thus having abused of their collective dominant position[86].

The ECJ overruled the decision made by the Commission arguing that the economic power of the firms was not properly weighted as requested by Article 102 and the arguments for infringement of Article 101 were taken instead. The argument of the ECJ to disregard the analysis of the infringement of Article 101 is that both are conceptually independent and each provision must be analyzed and applied according to the terms of each article.

The ECJ accepted the concept of collective dominance after clarifying that it is not enough to prove a concerted practice to establish the abuse of a dominant position by collective dominance. In the same sense, Whish & Bailey affirm, "Behaviour that amounts to a concerted practice is not automatically also abusive; and vice versa"[87].

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85 Joined cases T-68/89, T-77/89 and T-78/89. Società Italiana Vetro SpA, Fabbrica Pisana SpA and PPG Vernante Pennitalia SpA v Commission of the European Communities.

86 Ezrachi,Ariel. EU Competition Law: An Analytical Guide to the Leading Cases p. 289 *" The Commission asserted that the three undertakings, as participants in a tight oligopoly, enjoyed a degree of independence from competitive pressures that enabled them to impede he maintenance of effective competition, notably by not having to take account of the behavior of the other market participants. (point 78) It concluded that the undertakings presented themselves on the market as a single entity and not as individuals (point 79) and that their conduct constituted an abuse of a collective dominant position, because it restricted the consumers' ability to choose sources of supply (...). In its judgment, the General Court considered, among other things, the Commission's finding of a collective dominant position.*"

87 Ibid. p. 575.

The ECJ opens the interpretation of Article 102 to consider a collective dominance position, after assuring that "there is nothing, in principle, to prevent two or more independent economic entities from being, on a specific market, united by such economic links that, by virtue of the fact, together they hold a dominant position *vis-à-vis* the other operators on the same market"[88].

It was not clear which types of economic links they referred to, so that tacit collusion could be considered as something that may result in a collective dominance situation, nor does the judgment define collective dominance or abuse of it.

However, the ECJ later pointed out in Almelo case[89] that for a collective dominant position to exist, it is necessary for undertakings to be linked in such a way that they adopt the same conduct on the market. Although it is not explicit, this statement is clearly referring to a tacit behavior, or in other words, tacit coordination, which would end up in tacit collusion when finding an abuse of a collective dominant position. Yet, the problem of identification of what would amount to a collective dominance is still unresolved.

5.2.2 Compagnie Maritime Belge[90]

Along with the Italian Flat Glass case, this case can be considered as a landmark. The Commission determined that three shipping conferences (CEWAL, COWAK and UKWAL) partitioned the transport market between Northern Europe and West Africa

88 Joined cases T-68/89, T-77/89 and T-78/89. Italian Flatt Glass General Court [1992] ECR II-1403 [1992] 5 CMLR 302 para. 358.

89 Case C-393/92 [1994]. Municipality of Almelo and others v. NV Energiebedrijf Ilsselmij.

90 Cases C- 395 y 396/96P [2000] Compagnie Maritime Belge Transports SA and others v. Commission.

refusing to operate independently in the other conferences. Thus, finding an infringement of article 81 of the Treaty of Rome.

Additionally, the Commission determined that the members of the CEWAL, incurred in abuse of their collective dominant position by removing of the market to the main independent shipowner that was not part of the shipping conference (this practice is known as 'fighting ships').

The ECJ upheld the Commission's decision regarding the collective dominance and added an interpretation of how the concept of collective dominant position should be understood. The ECJ stated that the expression "one or more undertakings" of the former Article 86 (now Article 102 of the TFEU) implies that a dominant position may be held by two or more economic entities legally independent of each other provided that from an economic point of view they present themselves or act together on a particular market as a collective entity[91]. Furthermore, the ECJ affirms that it is also important to look at the economic links between the undertakings in order to establish a collective dominance situation.

The analysis of the economic links refers to those factors that facilitate the coordination between the undertakings. So, then again, the study of the market structure and the facilitating practices may also become relevant for conducts regarding abuse of collective dominant position under Article 102.

The General Court established three cumulative conditions for the finding of collective dominance:

1. Each member of the dominant oligopoly must foresee the other members conduct so as to control if the others are adopting the common policy,
2. Tacit coordination must be sustainable over a period of time. There must be an incentive not to depart from the common policy.

91 Compagnie Maritime Belge Transports SA and others v. Commission. pag. 36.

3. The foreseeable reactions of competitors and consumers must not jeopardise the results expected from the adoption of the common policy[92].

Having previously said that the analysis of the market structure would be necessary to find collective dominance and considering the possibility of the configuration of a collective dominance position from oligopolistic behavior of the firms without any formal or explicit binding between them, the ECJ would be accepting tacit collusion within the conducts derived from Article 102.

Petit points out that the explicit references to 'oligopoly' and 'tacit coordination' by the General Court, makes indisputably clear that the concept of collective dominance under Article 102 TFEU covers situations of tacit collusion[93].

5.3 EU Merger Regulation "EUMR" (Regulation 139/2004)

This third legal option of the EU became more relevant than the concept of collective dominance under Article 102. In fact, since the expedition of the regulation, the Commission has been reluctant to start proceedings on the grounds of collective dominance[94]. Instead, the Commission has used the EUMR to tackle mergers that are prone to create conditions towards the apparition of tacit collusion.

The EUMR states "*concentrations that significantly impede effective competition in the common market or in a substantial part of it, in particular as a result of the creation or strengthening of a dominant position, shall be declared incompatible with the common market*"[95].

92 Case T-193/02 [2005] ECR II-209 Laurent Piau v Commission of the European Communities. Para. 111.

93 Petit, Nicolas, The oligopoly problem in EU competition law; p. 305.

94 Ibid.

95 EUMR Art. 2 (2)

This excerpt of the EUMR demonstrates how the construction and previous reasoning made by the Commission and the ECJ, regarding the concept of collective dominance, results useful. The EUMR regulation uses (not directly but by reference when the concentration creates a dominant position that restricts competition) the criteria of collective dominance to identify circumstances where competition may be restricted or in other words, where tacit collusion can be facilitated after a concentration.

As it was previously established, oligopolies are concentrated markets with few firms that act in an interdependent way by virtue of the market structure. On the other hand, oligopolistic markets are a fertile ground for tacit collusion given the so-called interdependence between firms. Thus, mergers are the exacerbation to create conditions of concentration, which allow firms to coordinate their behavior and impede effective competition.

As mentioned in by Petit, the EUMR would offer the advantage of bringing a structural solution to tacit collusion. Given the EUMR's vocation to address problems related to concentrated market structures, it is deemed an adequate instrument against tacit collusion.

5.4 Actual status regarding the use of EU competition law to reduce tacit collusion

Additionally to the previous analysis and despite the difficulties, the EU authorities currently count with the provisions previously mentioned to tackle tacit collusion.

Although tacit collusion is not explicitly enshrined in Article 101 of the TFEU, this article can be considered useful for CA as it helps to prevent different types of facilitating practices[96]. For

96 Petit, Nicolas, The oligopoly problem in EU competition law; p. 294, 295 and 296. Agreements that create financial links among firms in oligopolies and technology transfer agreements are also included by petit as facilitating practices prevented with the application of Article 101.

instance, information exchange agreements, Research & Development agreements, among other forms of horizontal cooperation agreements are covered within the application of Article 101 according to the Guidelines on the applicability of Article 101 of the TFEU to Horizontal cooperation agreements[97]. Moreover, Article 101 of the TFEU helps preventing vertical agreements that facilitate tacit collusion as the 2010 guidelines on vertical restraints include tacit collusion within the concept of collusion[98].

Regarding the use of Article 102 of the TFEU, the concept of Collective dominance becomes a useful tool which helps to the interpretation of the provision regarding its application to tacit collusion cases.

In the case of merger control, the EUMR has given to the Commission the power to forbid mergers which contributes in the creation of a dominant position. Thus, it contributes to strengthen the *ex ante* control to oligopolistic mergers that might lead to tacit collusion.

VI. Conclusions and final remarks

As seen throughout the document, tacit collusion has been an issue both for the identification and for the way to set any proceedings under competition law in the EU. We established how markets characterized as oligopolistic set the most appropriate conditions for the existence of collusion and tacit collusion. Collusive outcomes are likely with few competitors in the market and even more are expected to occur without explicit agreements due to the interdependence of firms.

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97 Communication from the Commission – Guidelines on the applicability of Article 101 of the Treaty on the Functioning of the European Union to horizontal cooperation agreements, [2011] OJ C 11, pp. 1–72, 35–37.

98 Op. Cit. Petit. P.295

Interdependence, as previously said, might allow firms to achieve supra-competitive prices and discourage competition. However, this does not prevent firms from acting intelligently to anticipate to the actions of competitors, which does not entail that firms are colluding. This behavior only shows how interdependence works as firms are individually looking for maximizing their businesses' profits based on their competitors' actions.

Although the effects of acting interdependently on oligopolies are clear, it remains difficult for the authorities and (it has been for academia) to clearly identify and associate tacit collusion with certain behaviors that may or may not be anticompetitive. Still, the interdependence is key to understand how firms get to a tacit coordination.

The analysis of Game Theory *vis-à-vis* the oligopoly problem shows that any firm acting for its own interest may coordinate their actions basing its decisions depending on their rivals' actions. The use of the prisoner's dilemma helps us understand how decisions made by firms in oligopolies are influenced by the expectation of the behavior of the other firms.

However, even when game theory contributes to understanding the rationality behind the oligopolistic interdependence, the debate Turner-Posner suggests that there is still a problem of recognition of the conduct and determining whether the oligopolistic interdependence constitutes an agreement or not and therefore the debates goes to the field of the punishment or not under competition law. Even though Posner supports the idea of punishing tacit collusion under Competition law, he recognizes that there are some problems when trying to apply the law to tacit collusion cases, both practical and procedural (regarding proving issues).

Once on the level of trying to apply the rules of competition to tacit collusion, and demonstrating its occurrence, the facilitating practices will help to determine whether a conduct in oligopolies may set the conditions for tacit collusion or simple oligopolistic interdependence. Thus, if these practices create a risk for competition, it may be justifiable for authorities to intervene.

Nevertheless, looking at the development of the issue of tacit collusion after the application of Articles 101 and 102 of the TFEU, it is possible to conclude that, although tacit collusion is a real concern for authorities, the courts have been forced to give extensive interpretations of the law in order to tackle tacit collusion. Besides, it is not clear how the conduct fits in the wording of each article, whereas there is no express mention to tacit collusion. This explains how, after the interpretation given to Article 102 and the concept of collective dominance, the EUMR had to complement the articles of the TFEU to tackle tacit collusion, and until now, it seems to an adequate tool to tackle tacit collusion.

The analysis of the TFEU articles and the case law demonstrate that most of the analysis of cases is *ex-post*, which has been ineffective for authorities as tacit collusion still is not clear in the current provisions of the TFEU. On the other side, the introduction of the EUMR to tackle tacit collusion may seem like an appropriate decision as it implies a control *ex ante*.

On this regard, an *ex-ante* control would work as a future solution for authorities regarding tacit collusion. This will need the inclusion of a provision that prevents key elements that possibly opens the path for tacit collusion to occur. However, this control ex ante should not be based on prohibiting tacit collusion because the identification problem persist and the burden of proof will still be too cumbersome. On the other hand, as Turner previously said[99], prohibiting oligopolists to act interdependently would be as asking competitors to behave irrationally.

The control *ex ante* should go to the origins that create or facilitate tacit collusion, namely, the facilitating practices. For

99 Turner, D.F. (1962), 'The Definition of Agreement under the Sherman Act: Conscious Parallelism and Refusals to Deal', Harvard Law Review, 75, 655; Sullivan (1977) See - Petit, Nicolas, The oligopoly problem in EU competition law p. 281.

instance, regarding barriers to entry the fewer competitors are in the market the easier is to keep prices. Therefore, with a bigger number of competitors in the market, tacit collusion will be unfeasible. In the same sense, a regulatory control of the product homogeneity will discourage tacit collusion without forbidding the oligopolistic interdependence that is characteristic of oligopoly markets.

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