

“Presumption of Concerted Practice”: A Legal and Economic Analysis

by

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İzak Atiyas and Göneç Gürkaynak¹

1 Introduction

This study seeks to discuss the presumption provision mentioned in Article 4 of the Law on the Protection of Competition (RKHK). Said article prohibits “...any agreement or concerted practice which has the purpose of obstructing, disrupting, or restricting competition, or which by its nature has or may have the same consequences”. The presumption provision discussed in this study reads as follows:

“In cases where an agreement cannot be proven to exist, if price changes in the market, supply-demand equilibrium, or fields of activity of enterprises bear a resemblance to those in the markets where competition is obstructed, disrupted or restricted, such similarity shall constitute a presumption that the relevant enterprises are engaged in concerted practice.

Any party may absolve itself of responsibility by proving no engagement in concerted practice, provided such proof depends on economic and rational facts”

The presumption provision can be interpreted in a number of ways. This study will focus particularly on the way the presumption provision is applied in a few of the most recent decisions² by the Competition Board, and the interpretation this application is based on. The interpretation and application in question are new. To put it briefly, previous decisions of the Board did not consider individual interfirm parallel behavior and specifically parallel price increases to be a presumption of concerted practice, and no conclusion was reached that Article of the RKHK had been violated solely on the basis of evidence on parallel price increases. Up until these recent decisions, every Board decision which concluded that Article 4 had been violated by way of concerted practice relied on an evidence of interfirm contact in addition to that of parallelism.

However, two recent decisions by the Competition Board concluded that the fact that firms exhibited parallel behavior in certain periods constituted a presumption of concerted practice, and requested that each relevant enterprise prove, on the basis of economic and rational grounds, that it has not engaged in concerted practice.

The logic behind this interpretation of presumption is more or less as follows:

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² The yeast decision referenced 05-60/896-241 and dated 23 September 2005, and the cement decision referenced 05-05/42-17 and dated 13 January 2005.

The condition stipulated in Article 4 for the application of presumption that said parallelism “bears resemblance to that which is present in markets where competition is restricted” (which may be labeled “the resemblance condition”) has generally been leniently applied. For example, if it is parallel price increases that matters, it shall suffice for such increases to be above increases in costs and inflation to assert that the actions in question bear resemblance to those which are present in markets where competition is obstructed.

Thus, such parallel action constitutes a presumption of concerted practice.

In that case, it becomes incumbent upon the enterprises to demonstrate that the parallelism in question is not based on concerted practice, but has economic and rational reasons behind it.

In this study, the reasoning process in which this rationale is applied shall be referred to as the “naked application of the presumption of concerted practice”. The study does not offer an extended discussion of the Board decision where there is a pure utilization of the presumption of concerted practice, but provides a general economic and legal analysis of this and similar interpretations of the presumption provision. Here, a summary of the main points of the analysis and its limits shall be given.

In discussions on concerted practice, the presumption rationale arises in the context of what sort of evidence competition authorities should be putting forth to conclude that competition in oligopolistic markets is restricted by way of concerted practice. As will be demonstrated in detail below, in antitrust cases in both the EU and the United States, parallel price increases should be accompanied by a number of other evidence to reach the conclusion that there exists a violation of competition through concerted practice. For instance, certain forms of communication and contact between firms may be deemed sufficient evidence to prove a case of concerted practice.

From the perspective of economic theory, however, at least one interpretation suggests that game theory has shown that firms may exert collective market power without any direct contact among themselves. In other words, the approach suggests that firms do not need to have direct contact (even) in the case of the formation of monopolistic market prices. Given particularly that competition law in its essence seeks to protect the consumers or public well-being, there is no doubt that said suggestion points to a dilemma in antitrust cases: Thus, the requirement to find an evidence of contact to conclude that there exists a violation of competition is almost like a hedge around competition authorities fighting against cartels. But it is also clear, and will be explained below, that the above points have not motivated competition authorities to resort to a naked application of the presumption rationale. This appears to be another dilemma in and of itself.

In terms of international antitrust practice, the presumption provision in the Turkish RKHK is a novelty, and the contextual details summarized above suggest an obvious reason as to why it has arisen: Clearly, the legislation was drafted with a view to getting rid of the abovementioned hedge to a certain extent. Did Turkey act with foresight and courage in this respect, or did she assume that a dilemma not yet resolved at the international level could easily be taken care of, as a result of her insufficient experience?

Expressing the matter in more general terms, the following questions would be in order: What kind of factors should be given consideration to see the advantages and drawbacks of the presumption provision? Are there some preliminary conditions to be met so that the presumption provision brings about advantages? Will the naked application of presumption result in equitable decisions? Will the presumption provision, as it now is in the law, frequently cause misjudgments in antitrust practice?

This article shall not provide answers to all of these questions. In our view, to be able to answer such questions, to render meaningful the debate around this issue, and to facilitate relevant discussion, a comprehensive analytical framework emphasizing the economic aspect of the issue, that is focusing on the characteristics of oligopolistic markets should be produced. In addition, inferences should be made as to what such a framework should mean in terms of a discussion from a point of law. Thus, the first aim of the present study is to set forth a preliminary draft of such a framework.

Furthermore, it seems that there exists a disposition that the naked application of presumption, whose manifestation is the most recent Competition Board decisions, does not digress from EU practice. We disagree with that disposition. Therefore, a second objective of this article will be to demonstrate that the naked application of presumption contradicts the practice in the EU, United States, and even at the international level. While demonstrating that, the article will present as lucidly as possible the logical relationship between international practice and the analytical framework whose discussion precedes that of said practice.

Obviously, the objectives of this article are far from enough to answer the questions above. It will become clear in the sections below that such an answer requires a more extended discussion of what advantages and costs presumption-like provisions bear in various market conditions, and what other instruments may be available to competition authorities to resolve the problem of market power in oligopolistic markets. In a sense, then, this article seeks to lay some useful groundwork for such an extended discussion.

2 An economic review of oligopolistic markets

In this section, enterprise behaviors in oligopolistic markets will be reviewed, market outcomes arising in such markets will be analyzed in terms of public welfare with reference to game theory concepts, and a number of suggestions will be made as to how different market outcomes can be evaluated in terms of competition law.

2.1 The welfare criterion

Although it appears that there is no clear consensus as to what the main objective of competition law is (see Gürkaynak 2003), it could be said there is widespread consensus regarding what type of criterion or measure of welfare should be used in the economic evaluation of any market: This criterion is either consumer surplus or total surplus (that is, consumer surplus plus producer surplus). This is the public welfare criterion that will be used in this study to assess market outcomes or the likely impact of competition policy on market outcomes. Consumer surplus and total surplus do not always lead to the same conclusions in all evaluations, however, the differences can be considered insignificant as far as the objectives of this study are concerned.

2.2 Independent behavior and Nash equilibrium: One-shot games

Before offering an analysis of the phenomenon defined as tacit collusion in the field of industrial economics, it will be helpful to review simple oligopolistic models. There are two basic models of oligopoly: Cournot and Bertrand oligopoly models. Both models study the interaction between a small number of enterprises. The difference between the two relates to the assumption about the variables chosen by enterprises when they compete. To couch the same point in terms of game theory concepts, whereas in Cournot's model players' strategic set is composed of levels of output, in Bertrand's model the strategy set consists of prices. The Cournot model assumes that enterprises set the level of output, and that when all outputs are set, the market price will adjust so as to equate demand with output. In the Bertrand model, however, the assumption is that enterprises choose prices, but further that outputs will fully meet the demand established at the set price. "Nash Equilibrium" is the answer both models give to the question of what sort of outcome will arise from the interaction of enterprises. One of the most fundamental solution concepts of game theory, the Nash equilibrium, is defined as follows: The combination of strategies such that, given the strategies of other players, each player's strategy is a "best reply" to the strategies of other players.³ That is, in a Nash equilibrium players' chosen strategies are such that no player is motivated to choose another strategy given the choices of other players, and it is impossible for any player to increase payoffs by choosing another strategy. For example, in the Cournot-Nash equilibrium, given the equilibrium output of the second player, the first player cannot increase its payoffs by choosing a different output than the equilibrium output. Given the competitor's strategy, the equilibrium output will yield the highest amount of payoff.

The concept of Nash solution or equilibrium rests on the assumption that enterprises act independently of one another. In game theoretic terminology, the Nash equilibrium is a "non-cooperative" solution. In a Nash equilibrium, each enterprise maximizes its profit independently of the other; or, rather, each enterprise chooses that value among the potential values of whatever the strategic variable (output in the case of the Cournot model, and price in the Bertrand model) which will maximize its profit, given the Nash-equilibrium choices of other players. Here, the notion "independent" should be approached with care. 'Independent' refers to each firm's optimum way of choosing its strategy, given other enterprises' equilibrium strategies. Although enterprises act independently, the concept of a Nash equilibrium still includes a serious degree of coordination among firms: It is as if each firm is aware that other firms will choose their Nash equilibrium strategies. This is an assumption, one that is fundamental to the concept of Nash equilibrium. Traditional oligopoly theory offers no clues as to how enterprises reach their Nash equilibria. It does not analyze the players' cognitive processes, those are beyond the scope of the theory. The assumption is that if there is Nash equilibrium, then players will play their equilibrium strategies. In this sense, the concept of Nash equilibrium includes a significant degree of coordination.

³ "Strategy profile" would be the better term. In other words, a set composed of strategies chosen by each player. For instance, if the game is a Cournot game and there are two players, a strategy profile would be the set composed of the outputs of the first and second players.

Let us see why the concept of Nash equilibrium is still very powerful. Of the likely outcomes of the game⁴, in all except the Nash equilibrium, given the strategies of the other players, at least one of the players may increase its payoff by changing its strategy. That is, in any likely outcome other than Nash equilibrium, it appears that at least one of the players is not acting optimally (in other words, it is not providing a best reply to other players' choices). Only in Nash equilibrium are each of the two players acting optimally in the sense of providing the best reply (given the choice of the other).

Let us consider any homogenous product market. In the case of perfect competition (where all firms are price takers, and entry and exit in the long run is free and costless), prices will equal marginal costs. In the long-term, economic profits are zero. If the market is oligopolistic with Cournot competition, the equilibrium price is above marginal cost, and enterprises have profits greater than zero. In the Cournot model, equilibrium prices are also below the price that would have emerged in a monopolistic market under the same demand function.

However, in the equilibrium of the Bertrand model, prices will be equal to marginal costs under certain conditions, that is, enterprises will make zero profit. In a sense, then, the Bertrand model assumes a fiercer competition than the Cournot model does.⁵

2.3 Cooperation

In the games described above, however, both the price and the profit are below what would have obtained had enterprises cooperated. The verb "to cooperate" here has in fact a very general meaning. In general, a "cooperative" solution of a game means the following: Under cooperation, players do not seek to maximize their payoffs independently of each other; under cooperation, the value of the strategic variable is chosen to maximize not the individual but collective payoffs of the players.⁶ The same also holds in the case of oligopoly theory: To find the cooperative solution, one finds the output and price values which maximize total payoffs. This solution is also called the cartel solution. Given the demand function, Cournot and Bertrand cartel solutions are equal. This value is also equal to the monopoly solution under the same demand function.

⁴ For instance, in a Cournot game, a manufacturer may choose any output between zero and infinity. Thus, the game will have an infinite number of possible outcomes.

⁵ For sure, the discussion here relates only the simplest forms of the models.

⁶ Since the concepts may be easily confused, let us make clear the Turkish counterparts of some English terms. The game theory concept "cooperative" which is used to describe the type of game played will be translated as "*işbirliğine dayalı*", *işbirliği içeren* or "*işbirlikçi*", as applicable. "Non-cooperative" will be translated as "*işbirliği içermeyen*" or "*işbirliğine dayanmayan*".

"Collusion" could best be translated, it seems, as "*danışıklık*" into Turkish. In that case, the Turkish for "collusive" needs to be "*danışıklı*". Note that these are concepts and terms used in economic theory. There are, additionally, legal concepts: agreement and concerted practice. It could be suggested in general that the term agreement implies an explicit (documented or written) agreement among the parties, whereas concerted practice is understood to include cases where there is no explicit agreement but the parties still act out of a common will.

Concepts that have their roots in law should rather not be confused with those rooted in economics. In fact, this study in a sense aims to discuss how comparable legal and economic terms are, or how similar or interchangeable they are.

It should be emphasized that it is not easy to behave as a cartel under the assumptions of this model. Such behavior requires external sanctions. This is because, in the absence of external sanctions, any one of the players is inclined to violate the agreement. It is not optimal for any given player to remain faithful to the cartel strategy while the others remain faithful to it. Indeed, this is why the cartel solution is not a Nash equilibrium.

In the perfect competition and Bertrand models, consumer and total welfare are maximized. Prices forming at the Nash equilibrium in the Cournot model are higher than marginal costs, thus both consumer and total surplus are lower. Under cooperation, both welfare criteria acquire even lower values and they reach their monopolistic levels.

If we try to establish a link between competition law and the characteristics of the models summarized thus far, the following suggestions will be in order: Had the real world been as simple as envisaged by these models and enterprises acted as such, enterprises using Cournot or Bertrand Nash equilibrium strategies would not, we think, have acted in agreement or engaged in concerted practice in the sense of 85(1). Nash equilibrium behavior would have been found to be in line with the notion of “independent behavior”, a term very frequently used in antitrust texts. For example, this would have been true in spite of the fact that in Cournot equilibrium prices are higher compared to what they are under perfect competition. In contrast, it would have been concluded that firms in “cooperation” were in violation of 85(1).

Nevertheless, even in light of the discussion so far it should be underscored that the relationship between antitrust debates and basic oligopoly models is not without problems. For instance, in a concerted practice case, a major indicator of whether enterprise behavior is in violation is whether firms have engaged in activities aimed at reducing “competitive risk”. However, in the basic Cournot model there is no risk, each player has complete knowledge of the other players’ moves.

2.4 Repeated oligopoly game

If the one-shot game is repeated an infinite number of times, cartel prices and profits may occur as Nash equilibria. This is what economists call “tacit collusion”. In other words, infinite repetition of the game would result in the players acquiring cartel profit through independent strategies, that is, without any cooperation. The achieved payoff is collusive, however, it is reached through non-cooperative strategies. In addition, it is assumed that there is no interfirm contact or communication

Strategies supporting the cartel solution are more complicated than the equilibrium strategies of the one-shot game. Strategies widely cited in the literature entail punishments. The simplest among those strategies are called “trigger strategies”. For example, in an infinitely repeated Bertrand game, trigger strategies may be summarized as follows: In the first round, a player will play the collusive price (cartel price). In each of the following rounds, he will play the collusive price if the competitor has chosen the collusive price in the preceding round; otherwise he will play the Nash equilibrium of the one-shot game forever, which is interpreted that the competitor is being “punished”. Game theory has shown that if the discount rate is high enough, such strategies are a Nash equilibrium of a repeated game. As an

outcome of the application of these strategies, enterprises obtain cartel profit infinitely. Punishment is not observed.

However, this is not the only strategy in an infinitely repeated game. For example, the Nash equilibrium of the one-shot game is also a Nash equilibrium of the repeated game. More importantly, the trigger strategy explained above may support not just the cartel outcome, but any level of profit between monopoly profit and one-shot game profit. In other words, a repeated game has many Nash equilibria. Thus, players face a problem of coordination: How will enterprises decide which equilibrium to play among an infinite number of equilibrium strategies, and how will they make sure they are targeting the same equilibrium? Repeated game models widely used in the literature offer no answer to this question.

Although this is considered a major problem in the economics literature, it is necessary to say that this problem is probably not that important in the context of the simple model discussed above. If companies really know the demand and cost parameters, it may be expected that they will adopt the monopoly profit as the focal point and choose the strategy which will support that. It should be said nevertheless that oligopoly theory has not as yet offered a clear reply as to which one of the multiple Nash equilibria shall be preferred.

2.5 Comparison

The Nash equilibrium strategy of a one-shot game and the collusive strategies in repeated games have some common properties. The main commonalities between the two are as follows:

- Both strategies are independent, or non-cooperative, strategies in the sense of game theory. Neither includes any contact or communication among enterprises.
- In both cases, strategies are optimal (or rational) in a Nash sense. In other words, the strategy of each enterprise is the best reply, given competitors' strategies.

The two strategies differ in certain respects as well. Main points of difference are the following:

- Collusive strategies include a punishment mechanism or threat. In addition, the threat of punishment is credible. The Nash strategies of a one-shot game, however, do not include such a mechanism. In the simple versions of repeated games, the punishments are not realized. That is, in a market where trigger strategies are played, there are no price wars. Price wars may arise in more complicated models that entail uncertainty.
- In repeated games, collusive strategies are shaped on the basis of what players have done in the previous rounds of the game. Put differently, history has a key role in the formation of collusive strategies. Naturally, this does not apply to Nash strategies of a one-shot game.

2.6 Dynamic games

A repeated game consists of the repetition of a static game. There are also games with more dynamic features. Dynamic games are interesting in themselves, since they may generate a variety of outcomes. It is generally assumed that players apply Markov Perfect strategies in these games. These strategies are characterized by the fact that they entail payoff-relevant variables in each period. Maskin and Tirole, and others have demonstrated that there may be periodic cyclical price movements in these games. In other words, prices may fluctuate although there are no changes in cost or demand.

It would be useful at this point to summarize the characteristics of one such game (Maskin and Tirole 1988). A feature of this game which depends on price competition and which sets it apart from a repeated Bertrand game is that enterprises set their prices not simultaneously but by taking turns. In this case, the choice a player will make when it is his turn to play is a function of the choice made by the other player in the previous period. In the equilibrium which forms in this model, prices fluctuate between the level corresponding to monopoly profit and the level at which prices are equal to costs (that is, where enterprises make zero profit). Let us assume that prices are at their monopolistic level. The player who is taking the turn to play will cut the price and increase his market share. In reply, the other player will cut the price even further. Cutting the price is not meant to punish, but to increase market share. The process will continue until prices equal costs. When prices hit bottom, one of the two players increases her price to the monopolistic level with some probability.⁷ In the process, the average profit of enterprises will be above the equilibrium of a one-shot game, but below the cartel level. The legal implications of these models have not been discussed much, but one basic lesson to be obtained is that in oligopolistic markets non-collusive price movements that do not depend on movements in costs is possible.

3 What economic models mean to antitrust law

In this section, discussion will focus on the implications of the models discussed above for competition law and its implementation. Economists have grappled with this issue, especially with the legal status of implicit collusion (See Box 1: Two Economists' View on Implicit Collusion). There seems to be a consensus that Nash outcomes of one-shot oligopoly games do not create any problems in terms of competition law. Although Nash equilibrium requires coordination among enterprises and certain one-shot oligopoly games (as is the case with the Cournot model) result in a decrease in public welfare relative to perfect competition, such coordination is not considered a violation of competition probably because it takes place through entirely independent strategies.

3.1 Implicit collusion vis-à-vis competition law in an environment of complete information

Clearly, the more important question in terms of our topic matter is what the collusive outcomes of repeated games imply for antitrust law. How should antitrust law approach tacit collusions of the sort where there is no direct or indirect contact or

⁷ Expressed in game theory jargon, at this stage firms use mixed strategies.

communication, let alone an explicit agreement, and where the entire coordination takes place through independently chosen strategies? Should these strategies be considered as instances of violation?

As a matter of fact, this question itself rests on a very complex logic: In the final analysis, the question asks how a very practical legal praxis should be approaching the outcome of a highly theoretical model. We believe nevertheless that this intellectual exercise will contribute to a discussion about what role practices such as presumption should be playing in real life. Thus it will be helpful to answer this question under a number of different assumptions, each involving different levels of abstraction.

Let us first attempt to answer the question under the assumption of complete information. Let us assume that in a repeated oligopoly game both the enterprises and the competition authority have complete information on the characteristics of the game (demand structure, costs, etc.), and on what strategies are chosen by the enterprises. To imagine this, the following scenario may be considered: Assume that in this repeated game, managers direct their companies with the use of computer algorithms (after all, strategies in game theory are nothing more than algorithms). And assume that these algorithms are available public knowledge. Would, in such an environment, the use by enterprises of an algorithm which supports the cartel outcome be considered a violation of competition law? Note that in the scenario imagined here, the competition authority does not face a problem of “detecting” concerted practice: collusion is already observable

In our view, as long as competition law is aimed at maximizing public welfare and as long as consumer or total surplus is the criterion by which welfare is measured, and insofar as said enterprises have access to various algorithms which yield better outcomes in terms of public welfare, one needs to conclude that collusive algorithms should be considered violations of competition law.

However, it should be noted that the abovementioned antitrust praxis is a lot different from actual antitrust legal praxis. If there is an environment of complete information really exists, there probably won't be any need for antitrust law at all. Or, antitrust law would only assess the impact of various algorithms of the enterprises on public welfare in a complete information environment. Obviously, under such assumptions the competition authority would not even have to figure out in detail what constitutes an agreement and what concerted practice is, for, after all, all types of market behavior could easily be measured against their impact on public welfare.⁸ In other words, there is no need for any presumption, and nor is it necessary to discuss the likely effects of presumption-like provisions!

Moving from that unreal world to a more realistic one, it is doubtlessly more realistic to assume that the competition authority indeed operates under a serious lack of information, and that it is rather costly to produce the information which it does not have but requires to be able to make decisions .

⁸ In fact, if we take the ‘complete information’ assumption very seriously, there is even no need for a competition authority. Optimum prices for each market can be determined through central planning and communicated to enterprises in the form of instructions.

Box 1: Two Economists' Views on Tacit Collusion.

So far as we can tell, the use of game theory in discussions on competition law seems to have started in the 1980s, and mainly in the 1990s. The views of two economists, expressed in mid-1990s, on how concerted practice is treated in economics and law are an interesting example of the major dimensions of this discussion.

Philps (1995) establishes a parallel between the concepts of agreement and concerted practice mentioned in Article 85. Philps interprets Article 85 as follows: The term "agreement" in Article 85(1) expresses explicit agreements (price-setting agreements, quota cartels etc.). The term "concerted practice", on the other hand, refers to what economists call "tacit collusion" (p. 2). In Philps' view, tacit collusion is characterized by the following: It is a concordance of wills which leads to collusive outcomes without there being any explicit cooperation between the colluders. Philps notes that this corresponds to the collusive outcomes in repeated games. In his opinion, there exists a serious difference between the United States and Europe in this context. "If a collusive outcome is reached by non-cooperative behavior, there is no collusion, in a legal sense, in the US. There is thus a fundamental difference between competition law in the US and the EU" (p. 2, footnote 2). Similarly, "It seems clear that current US antitrust precedent recognizes that 'conscious parallelism' is not *per se* evidence of forbidden behavior" (1995, p.124, footnote 2).

Martin's article (1993) treats the issue of differing usages of the concept of concerted practice in economics and law. Martin notes on pages 4-5 that in the US practice, conscious parallelism is no grounds for deducing the existence of an agreement. Martin differs from Philps in his interpretation of EU practice: He notes with respect to European Court of Justice's decision on Wood Pulp: "But the grounds on which the Court has reversed the European Commission's decision suggest that the EC competition policy, like US antitrust policy, will retreat from condemnation of consciously parallel behavior." p.6.

Philps' study at that time gave the following message: Although European practice wishes to treat tacit collusion as a violation, under incomplete information, it is impossible or very

Therefore, we should analyze the matter under the assumption of an incomplete information environment. In fact, the approach of competition law to agreements and concerted practices assumes such an environment. Without an incomplete information environment, agreements entailing price-setting would not have been treated as a *per se* violation of competition law, and only those agreements that really have an adverse impact on social or consumer surplus would be prohibited. We will revisit this issue below.

3.2 Concerted practice, or legal status of tacit collusion in an incomplete information environment

Under the assumption of incomplete information, the subject matter we are discussing can be conceptualized as follows: The competition authority is not completely informed about the demand and cost characteristics of said market, or to the pricing and other strategies of enterprises. Leaving aside cases where there is an explicit agreement, the competition authority will at best be operating on the basis of the values of certain market variables (for instance, price and quantity). To make the discussion clearer, let us assume further that the competition authority does not have access to any evidence of contact. The authority will decide whether the enterprises in question are in infringement of competition in light of the evidence given. Let us set aside for the moment how the matter looks like from the viewpoint of enterprises, that is, what sort of an information environment the enterprises are operating in.

Let us, then, try to ask again what it is that the competition authority seeks to prohibit. In this more real world, “concerted practice” can in fact take at least two different meanings. First, the concept of “concerted practice” resembles a non-cooperative collusive equilibrium in a repeated game: This is the situation whereby enterprises achieve coordination without any communication with one another, but through their market behaviors are able to increase prices through such behavior (that is, an instance of tacit collusion, as expressed in economic terminology). Second, the concept can mean the following: Enterprises have established direct or indirect contact with one another in one way or the other, have reached or sought to reach consensus as to what sort of strategies they will adopt in this regard. Therefore, if it is this sense of concerted practice which the authority seeks to prohibit, the authority will then have the burden of deciding whether the evidence available to it suffice to prove the presence of said communication and contact.

It is extremely important to identify which of the two meanings concerted practice is deemed to have. Landing on one or the other meaning of the concept is the same as landing on a decision as to what, for example, in the context of the previous discussion on presumption in Turkey, constitutes the presumption in a decision stipulating that “prices bear resemblance to those in which competition is restricted”. In other words what it is a presumption of, or the meaning of the concerted practice whose presumption it is. Is the accusation against the enterprises that they acted in tacit coordination, or is it that they engaged in communication for which no clear evidence exists?

How is the question answered in practice, then? In the United States, the undisputed acceptance is that tacit collusion does not constitute a violation of competition (see Section 4.1 below). The doctrine known as “conscious parallelism and plus factors”

suggests that pure tacit collusion is not a violation of competition anyway, and it rests on the assessment that it is an example of a behavior toward rational profit maximization. This proclivity in the United States seems to rest on the belief that collusion is not possible unless there is explicit coordination. European precedents regarding the matter leave one in more doubt: In their review dealing precisely with this matter, Neven, Papandropoulos, and Seabright (1998) note that EU practice came close to prohibiting tacit collusion with the *Dyestuffs* decision, however subsequent precedents moved away from treating tacit collusion as a violation, especially since a conviction came to require an evidence of contact. But it is not very clear on the basis of Neven *et al.*'s analysis whether the EU practice decided that tacit collusion should not be treated as a violation as a matter of principle, or whether it stopped considering it as such because it was decided that the existence of tacit collusion is extremely difficult to prove.

We can now look at the subject matter in terms of enterprises. Just as competition authorities are to make decisions under incomplete information, enterprises, too, are to act without access to complete information about basic market parameters. This would mean the following: Enterprises will be incompletely informed as to what has thus far been called the "monopoly price" or the cartel price. Thus, the issue of coordination discussed above becomes even more important: There is no explicit price out there to focus on. Enterprises may be trying to focus on a price through trial and error, or to fix a price to be targeted through direct or indirect communication. Regardless, it is obvious that simple trigger strategies of repeated games will be of no use in this case.

It then will be meaningful and helpful to ask the following question to decide which meaning of concerted practice is targeted for prohibition: can enterprises fix cartel or near-cartel prices in a sustainable manner without coordinating directly through any means of communication, and by relying only on the coordination provided by price signals? If the answer to this question is in the affirmative, the one may conclude that there is a welfare problem that needs to be tackled and that, at least in principle, such coordination needs to be prohibited. If the answer is negative, though, it may be concluded that an attempt by the competition authority to prohibit a kind of behavior whose likelihood of occurrence is already low will constitute, in terms of public welfare, a mismanagement of scarce resources. The answer to the question should make the initial threshold to be passed before tacit collusion can be considered a violation. The second logical threshold will be discussed below.

Unfortunately, economic literature is currently not of much help in this regard. Most articles on tacit collusion do not discuss the extent to which non-cooperative tacit collusion is likely in real life. One of the few articles that explicitly tackles with this question, Werden (2004), is quite pessimistic on the issue:

"These models show that pricing coordination is possible under certain circumstances, but very few economists take the models so literally that they believe coordinated pricing occurs without communication of any form. A widely held belief is that repeated game models correctly identify what outcomes are possible in oligopoly, but which outcomes are actually achieved is determined by forces outside the models, including agreements among competitors." (p. 763).

Another source of answers to the question of whether pure tacit collusion is likely is experimental studies. Harstad, Martin and Norman (1998) find that competitors' profits were above the equilibrium profit of a one-shot game but way below the monopoly profit, provided competitors were allowed to communicate with one another. In cases where there was no communication among competitors, however, enterprises do not achieve collusive outcomes. But in cases where there are only two enterprises, profits may go slightly above what they would have been in a one-shot game. In their literature review, Haan Schoonbek, and Winkel (2005) reach similar conclusions. They find that competitors' ability to communicate with one another increases the likelihood of collusion. Muren and Pyddoke (2006) find the following: There is no tacit collusion in triopoly markets even though participants had explicit instructions on how to coordinate, and that tacit collusion is increased with explicit instructions in duopoly markets. The main conclusion of this literature, at least for the time being, is that pure tacit collusion, at least in markets with more than two players is not likely.

Let us assume that an answer is given to the question of whether pure tacit collusion is likely, and whether it will therefore be treated as a violation of competition law, or more generally to the question of what is meant by "concerted practice". In that case, we need to start discussing the matter from the viewpoint of the competition authority again, and to examine which rules can be used to prohibit the action targeted for prohibition, and the role presumption can play in that regard.

3.3 Antitrust Law and Possible Errors in an Environment of Incomplete Information

The implementation of antitrust law in an environment of incomplete information has two significant features. The first one is that acquiring information is a costly process. This is the cost in terms of money and time, incurred in relation to activities such as the initiation of an investigation, gathering data and evidence, hearing the defenses, etc. The second feature is that decisions pertaining to investigations made in an environment of incomplete information may be subject to errors. Therefore, it is essential to pay due consideration to these costs and possibilities of error when devising antitrust rules.

Investigation decisions made in an environment of incomplete information may in principle involve two types of errors. The first is the prohibition of acts which, in light of social welfare, should not be prohibited. This may be referred to as a "type-one error". The second error is the failure to consider those actions that have an adverse effect on public welfare as a violation. This may be referred to as a "type-two error". To assess the impact of such errors on social welfare, both the probability of making such errors as well as the losses to be incurred with respect to social welfare must be taken into consideration. For example, even if the probability of an error is high, if the losses it will lead to are close to zero, the error may be regarded as insignificant (Neven, Papandropoulos and Seabright, 1998).

Even if these concepts are not explicitly discussed during the preparation of antitrust laws, we can say that certain general features of the law have developed within this framework. For example, the *per se* prohibition of price fixing agreements is a trend that is compatible with this framework. The number of cases where price-fixing can benefit social welfare is extremely limited. Therefore, a practice that prohibits price-

fixing *per se* would most probably involve a very low type-one error. In contrast, the cost, in terms of money and time, of an antitrust system where price-fixing is not prohibited *per se* and where the effect of each price-fixing action on public welfare is analyzed in detail would be extremely high. Therefore, the *per se* prohibition of agreements involving price-fixing seems to be reasonable from the viewpoint of social welfare.

Within the analytical framework developed here, the legal grounds for a presumption provision would probably be as follows: It is extremely easy for companies who act in collusion to hide the traces of their actions. Therefore, the obligation of competition authorities to provide evidence of contact in each case of concerted practice would lead to a high level of type-two error. The inclusion of presumption provisions would reduce type-two errors.

Let us examine the issue from this perspective and reiterate our question as to how competition law should treat collusion. Let us for a moment assume that tacit collusion is a situation which one frequently comes across in real life. In other words, it is possible for enterprises to earn cartel profits through strategies of tacit collusion. In an environment of incomplete information, even this should not be sufficient for tacit collusion to be considered a violation. To decide that tacit collusion is a violation, it should be possible to condemn it without causing many errors. This is the second logical threshold for treating tacit collusion as a violation.

The most important drawback of considering collusion as a violation, then, is the fact that it is extremely difficult to detect. What would the indicators of such an action be? Could the fact that prices have been above costs for long periods of time be an indicator? This is not sufficient, because the situation is the same in a Cournot equilibrium. In order for collusion to be considered a violation, we must be able to differentiate between collusive strategies and others. This cannot be easily done in an environment of incomplete information. In real life, the business strategies of companies will not be as clearly distinguishable as in game theory. Again, the most important indicator of tacit collusion would be the existence of parallel prices, but prices are also parallel in the Cournot Model which does not involve any collusion. Therefore, this is not a satisfactory indicator either. Under these circumstances, attempts at reaching a decision as to the existence of tacit collusion are bound to include a high level of type-one error. Attempts to reach a decision as to the existence of tacit collusion would in many cases lead competition authorities to interfere with the regular business strategies of enterprises, or force enterprises to avoid or perform certain acts solely for the purpose of preventing an impression of tacit collusion.

In recent years, several econometric studies have been undertaken to detect tacit collusion. In these studies, attempts have been made to establish the time periods during which collusion has been low or high on the basis of price and quantity movements. However, even if we assume that such work has proven successful, we can never be sure that the enterprises' strategies underlying the price and quantity movements did not contain facilitating communication, contacts or other means of coordination. Therefore, even if we assume that such studies have contributed to the determination of time periods during which collusive action has taken place (at least some of the studies have probably succeeded in doing this), we have to accept that there is no data or study to prove that these time periods are actually time periods of tacit rather than explicit collusion. Furthermore, as Motta (2003) points out, it is rather

early to claim that these studies have produced definitive results; different studies based on the same data generally have reached different conclusions.

Thus, probably due to the above reasons, tacit collusion is not considered a violation in the competition laws of the US and the EU.⁹ This imposes a very serious burden of proof on those who claim that tacit collusion should be considered a reason for conviction. If tacit collusion is to be considered a violation, the legal grounds for this practice, which is not compatible with international trends, must be clearly specified.

3.4 Incomplete Information, the definition of concerted practice and presumption

It was argued above that tacit collusion should not be treated as a violation of competition law. In this section we will discuss the role and implication of the naked application of the logic of collusion under the different definitions of concerted practices.

If we define concerted practice to include tacit collusion, then “presumption” shall be the presumption that strategies that if observable would have been judged to be collusive (such as trigger-like strategies) have been used in the case investigated. As a matter of fact, if collusion is to be considered a violation, proving such collusion would be extremely difficult without applying a logic similar to presumption; proof would inevitably have to be based on movements of market variables. If we consider that establishing the existence of collusion is difficult in any case, we can conclude that using a presumption and moreover placing the burden of proving its non-existence on the enterprise would significantly increase the probability of a type-one error.

A definition of concerted practice that is close to that made by the US and the European Union (see Section 4), a naked application of the logic of presumption is very likely to lead to a high risk of a type-one error as well. If we leave aside the resemblance condition for a moment, we would be in a position to use presumption to indicate the existence of a contact for which there is no concrete evidence; in other words we would have to claim that parallel action only arises as a result of a contact. However, it is extremely difficult to determine the reasons behind an observed price or quantity movement, to decide whether this was the result of a concerted practice defined in this way, or the result of similar reactions of enterprises to similar shocks, or whether it reflects price fluctuations that occur in accordance with the market’s own competitive dynamics (see Section 2.6). What is even more difficult is for enterprises to come up with rational and economic grounds against such allegations. As a result of this, in many cases enterprises will be considered as being involved in violation (in other words, contact among the enterprises) although there exists no violation.

Needless to say, the main issue here is to determine how the “resemblance condition” is to be satisfied. The resemblance condition imposes on the competition authority the duty to conduct an economic analysis. Such an economic analysis, if performed in a serious manner, would in fact result in a decrease in cases where the presumption is

⁹ Neven, Prapandopoulos and Seabright (1998) claim that it would be more appropriate not to consider tacit collusion as a violation, more or less on the basis of this argument.

triggered and thus reduce the number of type-one errors that may arise from the naked application of the logic of presumption. However, there seems to be a general agreement in Turkey that the competition authority, or at least the decisions of the Board, which are public, may often be weak in terms of economic analysis. Under these circumstances, it seems difficult for this to constitute a factor that will decrease the number of errors in the short term.

4 The point reached in the US, EC and Turkish competition law regimes with respect to establishing “concerted practice”

In order to think about action that can be taken to change the role the presumption of concerted practice plays in Turkish competition law and for this to yield acceptable results as a political option, we must carefully inspect the field to which this presumption has offered a solution in other contemporary competition law systems. The concept of “presumption of concerted practice” does not exist in the USA or the EU. When we inspect the concept from this viewpoint, we must first analyze the conditions sought for conducting and concluding an investigation based on the concept of “concerted practice”. We have to accept that all these systems have the same level of good-faith concern for discovering “material facts”, and even if Turkish competition law seems to be closer to EU competition law, it would be useful to review the more sophisticated practices of the USA with respect to concerted practice.

The main message for this section is the following: The naked application of the logic of presumption does not exist in the current implementation of competition law in the US or Europe. It also represents an important change relative to the past implementation of the Turkish competition law.

4.1 On Concerted Practice and Proof in US Competition Law

Since the first decision in which the Sherman Act was applied to concerted practices, several complicated issues have emerged which have necessitated the questioning of the main objective, adequacy and even the necessity of competition law. With respect to the US antitrust law doctrine, we can start this process with the *Interstate Circuit v. United States*¹⁰ decision. It is possible to say that, following this exemplary resolution of 1939, and the *Theatre Enterprises*¹¹ decision which has undisputedly ruled that conscious parallelism was not a violation of competition law by itself, the argument has acquired new dimensions with the *United States v. Morton Salt Co.*¹² decision which underlined the significance of “plus factors”, and the doctrine has become fully structured with the *Pittsburgh Plate Glass Co. v. United States*¹³ decision approved for different reasons by the US Supreme Court¹⁴ and the *Delaware Valley Marine Supply Co. v. American Tobacco Co.*¹⁵ decision. After the establishment of the absolute necessity of the existence of “plus factors” for claiming parallelism in

¹⁰ *Interstate Circuit v. United States*, 306 U.S. 208 (1939)

¹¹ *Theatre Enterprises v. Paramount Film Distributing Corp.* 346 US 537 (1954)

¹² *United States v. Morton Salt Co.*, 235 F.2d 573, 577 (10th Cir. 1956)

¹³ *Pittsburgh Plate Glass Co. v. United States*, 260 F.2d 397, 401 (4th Cir. 1958)

¹⁴ *Pittsburgh Plate Glass Co. v. United States*, 360 U.S. 395 (1959).

¹⁵ *Delaware Valley Marine Supply Co. v. American Tobacco Co.*, 297 F.2d 199, 205 n. 19 (3rd Cir. 1961), cert. denied, 369 U.S. 839 (1962).

investigations whose subject matter is the parallel behavior of enterprises and clarifying what these are, with recent decisions such as *Bogosian v. Gulf Oil Corp.*¹⁶, *Quality Auto Body v. Allstate Ins. Co.*¹⁷ and *Japanese Elec. Prods. Antitrust Litigation*¹⁸, a permanent conviction has emerged concerning the principles governing the application of the Sherman Act to parallel behaviors of enterprises which do not reach to the level of an agreement. Today, US competition law clearly acknowledges that, in order to rule for concerted practice or tacit collusion, “plus factors” should be sought along with conscious parallelism. Especially after the recent *In re Baby Food Antitrust Litigation*¹⁹ decision, it has been accepted that evidence and findings indicating price following in an oligopolistic market are not sufficient for claiming conscious parallelism, as the structure of the market necessitates this in any case, and moreover ‘plus factors’ other than conscious parallelism must be demonstrated in all cases, in compliance with the standard of proof specified in the *Matsushita*²⁰ case .

According to *Matsushita*, the claimant has to provide “adequate evidence to eliminate the possibility that the investigated enterprises might have acted independently”. Another decision which has been taken about three years ago, has once again explicitly specified the standard of proof and especially the stricter standard of proof applicable to allegations of concerted practice in oligopolistic markets that must be complied with to prove concerted practice in the US competition law system. The *Williamson Oil Co.*²¹ decision states that, although the presentation of plus factors in addition to conscious parallelism would be sufficient to prove the existence of concerted practice in a manner that can be rebutted, these plus factors must be adequate to eliminate the possibility that the investigated enterprises might have acted independently. As the case in question involves an oligopolistic market, a decision was made that none of the following factors that were mentioned in addition to conscious parallelism were sufficient as a plus factor by *Matsushita* standards, and that no punishment could be given for concerted practice: Signalling, an act of the enterprise against its own economic interests, the fact that price-setting arrangements were made in foreign countries, and the fact that there was enough opportunity for tacit collusion.

Therefore, this learning process, whose main features have been outlined above, has clearly revealed that extremely serious efforts have to be made to prove the existence of concerted practice in oligopolistic markets under the stricter standard of proof that were introduced, and if the possibility exists for an investigated enterprise to have acted independently, the enterprise should under no circumstances be sanctioned until and unless such possibility is excluded with adequate evidence, let alone a fully liberal application of a concept such as a presumption of concerted practice.²²

¹⁶ *Bogosian v. Gulf Oil Corp.*, 561 F.2d 434 (3d Cir. 1977), cert. denied, 434 U.S. 1086 (1978)

¹⁷ *Quality Auto Body v. Allstate Ins. Co.*, 660 F.2d 1195 (7th Cir. 1981), cert. denied, 455 U.S. 1020 (1982)

¹⁸ *Japanese Elec. Prods. Antitrust Litigation*, 723 F.2d 238, 304 (3d Cir. 1983), cert. granted, 105 S. Ct. 1863 (1985)

¹⁹ *In re Baby Food Antitrust Litig.* (3rd Cir. 1999)

²⁰ *Matsushita Electric Industrial Co. v. Zenith Radio Corp.*, 475 US 574 (1986)

²¹ *Williamson Oil Co. v. Philip Morris USA* (11th Cir. 2003)

²² Hovenkamp (2005, p. 134-136) criticises courts in the US for interpreting the *Matsushita* case as requiring an unduly high standard of proof. We should emphasize that Hovenkamp’s criticism is in accordance with the views advanced in this article on the *Matsushita* case, and does not support the naked application of presumption. Hovenkamp criticizes the establishment of high standards for

4.2 Concerted Practice and Proof in EC Competition Law

As a matter of fact, the situation is not much different in the EC competition law regime. In the *Dyestuffs* decision²³, the first one in which the concept of concerted practice was used, the Commission inspected the most recent price increases implemented by producers in various EC countries, and reached the conclusion that these increases were made as a result of concerted practice. Similarities between the price increase instructions sent by producers to their affiliates and representatives were further used by the Commission as corroborating evidence of the existence of concerted practice among these producers.

The Court of Justice of the European Communities (“ECJ”) ratified the Commission’s *Dyestuffs* decision and defined concerted practice as “conscious coordination among enterprises for practical cooperation against the risk of competition, which has not taken the form of an agreement”. In addition to this definition, the ECJ has stated that consciously established parallelisms cannot in and of themselves be considered concerted practice:

“Even though parallel action cannot in and of itself be defined as concerted practice, such parallelisms may be considered as significant evidence of concerted practice if we reach the conclusion that the parallelisms observed in the market lead to competition conditions that are unlike the regular conditions prevailing in the market when we consider the product’s structure, the number and volume of the enterprises involved and the size of the market.”²⁴ Furthermore, in its resolution the ECJ stated that enterprises who take into consideration the existing or future behavior of their competitors while increasing their prices, would not be considered to have violated the law, thus taking parallel behavior outside the scope of concerted practice.

In decisions made after the *Dyestuffs* decision, the ECJ’s definition of concerted practice changed to a certain extent. Especially in relation to the *Suiker Unie* decision²⁵ in which the Commission claimed that sugar producers were engaged in concerted practice with the aim of preventing parallel imports, the ECJ specified the following necessary conditions to rule for the existence of concerted practice, basing its decision on the *Dyestuffs* decision explained above:

evidence related to communication between firms; by contrast in the naked application of the logic of presumption there is not communication between firms. In his discussion of the *Blomkest* case, Hovenkamp states the following (p. 135): “The majority misread the evidence as ‘based on a theory of conscious parallelism’. But conscious parallelism is what occurs when firms reach a price consensus *without* explicitly communicating about anything. Cajoling competitors into adhering to their posted price lists, or reprimanding them when they steal sales is not conscious parallelism; it is collusion. The combination of market structure and history and these communications was more than enough to create an inference of agreement”. Note that the term “collusion” here is not used here to describe tacit collusion, which entails no communication, but a situation that does involve and evidence about communication.

²³ Commission Decision dated 24.07.1969, 1969 *OJ L 195/11* (“*Dyestuffs Decision*”)

²⁴ Case 48/69, *ICI – Commission’s “Dyestuffs Decision”*, (1972) ECR 619

²⁵ Commission’s Decision dated 16.12.1975 (“*Suiker Unie Decision*”); and ECJ Decision No: 40-48,50,54-56,111,113&114/73, [1975] ECR 1663.

- (i) There must exist coordination or practical cooperation among enterprises;
- (ii) coordination or cooperation among enterprises must have been established as a result of direct or indirect communication;
- (iii) the purpose of such communication must be to eliminate uncertainties related to competitors' behaviors or to affect the commercial behavior of enterprises.

The fact that the ECJ has defined the characteristics of concerted practice as such indicates that no investigation can be conducted on the grounds of "concerted practice" under certain conditions that are considered sufficient for punishment in Turkey today. However, since "indirect communication" is an abstract concept, this case has not resulted in a full clarification of the concept within the context of EC competition law.

The Wood Pulp II decision²⁶ made by the Commission in 1984 in respect of the wood pulp market concluded that 41 pulp manufacturers and two associations were engaged in concerted practice between 1975 and 1981. The decision stated that it was not possible to explain the price increases with conscious parallelism observed in oligopolistic markets, that "the existence of documents related to meetings among manufacturers and future price disclosures have artificially rendered the market transparent and an indirect communication has been established among manufacturers in this manner".

Wood pulp manufacturers applied to the ECJ against this decision of the Commission. The ECJ arranged for a market research to be conducted by economists, as a result of which it decided that, as opposed to the opinion of the Commission, the market had become transparent for natural reasons arising from its structure rather than for artificial reasons, and that the parallel price movements in the market could be explained by oligopolistic interdependence, and vacated the Commission's decision to a significant extent. Furthermore, the ECJ ruled that it was inappropriate to associate all enterprises with the documents concerning information exchange which were discovered by the Commission, and did not consider these documents in assessing the case.²⁷

During the dawn raids that were conducted in March 2000 to investigate the existence of a cartel and to find out whether or not an agreement for sharing the market had been concluded between major Danish beer producer Carlsberg and major German beer producer Heineken, the Commission discovered certain documents related to negotiations between the two enterprises, including the minutes of a meeting held in August 1994.

In light of these documents, the Commission prepared an investigation report stating that these enterprises had become parties to an agreement in violation of Article 81 of the Treaty of Rome or were engaged in concerted practice. In the written defenses they submitted in reply to this investigation report, the enterprises claimed that there had never existed an agreement for sharing the market or any concerted practice

²⁶ Commission's Decision dated 19.12.1984, ("Wood Pulp II Decision") 1985 *OJ L* 85/1

²⁷ ECJ Decision No: C-89/85 dated 31.03.1993 [1993] *ECR* 1307

between them, that the entry into the local market by the enterprises was extremely difficult anyway, and that even if the Commission continued with its allegations on the basis of the evidence found, the evidence was too old to give rise to antitrust liability on the part of the enterprises.

In reply to the arguments made in these written defense statements, the Commission stated that agreements and acts aimed at restricting each other from engaging in commercial activities in their relevant countries constituted a violation. Nevertheless, it decided to withdraw its investigation by explaining that, in order for the investigation to continue, the allegations in the report had to be accompanied by corroborating evidence.²⁸

Under these circumstances, it is clear that in order to impose a punishment for concerted practice under the decisions of the EC Commission, it must be proven that the only logical explanation for parallel action is concerted practice and supporting documents must also be present.

4.3 Concerted Practice and Proof in Turkish Competition Law

As a matter of fact, until the recent examples of the “naked application of the presumption of concerted practice”²⁹, the Competition Authority has in most concerted practice investigations defined the minimum conditions for the application of the presumption of concerted practice by excluding tacit collusion, especially when it was in possession of the necessary evidence. This was a practice close to that of the US and the EC. Concrete information on this tendency provided below:

In an investigation initiated in 2000 against yeast producers, the Competition Board has not considered the parallelisms between factory sales prices as concerted practice. This has been explained as follows in the relevant decision:

“Dawn raids conducted at the administrative centers of yeast producers have not revealed any direct or indirect communication among the producers aimed at eliminating market uncertainties, especially uncertainties related to prices, that can be considered as concerted practice.

Although the findings have shown that the enterprises involved have effected parallel price increases unrelated to cost factors, we conclude that these increases did not stem from concerted practice, with due consideration of the facts that the oligopolistic structure of the market makes it necessary to follow competitors with respect to price increases, that no direct or indirect communication aimed at eliminating market uncertainties existed among yeast producers, and that the increases made in yeast sales prices by yeast producers remained below the Consumers Price Indexes published by the State Statistics Institute during the time period under investigation.

²⁸ Commission Decision No: IP/02/1603, dated: 04/11/2002 (“Carlsberg – Heineken Decision ”)

²⁹ For example Decision of the Competition Board No: 05-05/42-17 dated 13.01.2005 (“Göлтаş – Denizli Cement Decision”) and Decision of the Competition Board No: 05-60/896-241 dated 23.09.2005 (“Maya Decision II”)

Under these circumstances, it is possible to reach the conclusion that the parallel price movements observed in the yeast market, which demonstrates certain oligopolistic features, where a small number of considerably large enterprises operate and where a homogeneous product is involved, are “economic and rational facts stemming from the structure of the market.”³⁰

In addition to the above, the existence of other corroborating evidence beyond parallel behavior has been sought for making an allegation of concerted practice in such oligopolistic markets. The same decision of the Competition Board contains the following remark: *Although they constitute significant evidence of concerted practice among the parties, parallel behavior among enterprises operating in an oligopolistic market cannot by themselves be considered collusion without being supported by other evidence*. The reason for this was explained as follows: “When making important decisions, enterprises operating in such markets have to take into consideration their competitors’ probable reactions. This is because the benefit to be derived by the enterprise from such action depends on the reaction of competitors. This feature defined as “Oligopolistic Interdependence”, may lead to parallelisms in the activities of enterprises operating in oligopolistic markets”.

However, when we look at former decisions, we see that in its resolution pertaining to automobile distributors, the Competition Board had ruled that the “simultaneous introduction of discounts and campaigns by other market players in an oligopolistic market” was not sufficient for claiming concerted practice, and the Board had acted in a most sensitive manner with respect to finding concrete evidence or documents.

“Although the automobile market has an oligopolistic structure in which a limited number of players are operating throughout the world, we do not frequently come across the horizontal restriction of competition in this sector through agreements of concerted practice among competitors. We see that violation of the competition rules in the automotive market generally stem from vertical restrictions.

With due consideration to the report prepared, the evidence gathered and the scope of the file inspected, we have examined the news item by Gültekin KARA published in the daily Akşam dated 4 November 2004, stating that “automotive companies who met at the Automotive Distributors’ Association made a joint decision to increase their prices and not to make any discounts in response to the Special Consumption Tax increase of 2 November 2004 for passenger cars”, and UNANIMOUSLY decide that the initiation of an investigation is not necessary due to the fact that, although various enterprises that are members of the Automotive Distributors’ Association have launched discount campaigns in November and December in 2004, no concrete findings or documents could be found in relation to the subject matter of the investigation.”³¹

³⁰ Decision of the Competition Board No: 00-24/255-13805-60/896-241, File No: D3/2/A.Ç.-99/2 (“Maya Decision I”)

³¹ Decision of the Competition Board No:05-01/8-7, File No: İİ-04-KOK (“Decision on Automotive Distributors’ Association”)

Similarly, as a result of an investigation into the cigarettes market, the Competition Board ruled that, although a price following stemming from the market's oligopolistic structure did exist, this had arisen from the structure of such transparent markets and that the price following by enterprises did not constitute sufficient grounds for deciding on the existence of concerted practice. In the decision it was also stated that no other findings indicating concerted practice could be established and the complaint was therefore rejected. *"The Turkish cigarette market is a concentrated oligopolistic market which includes a significant market player such as the TEKEL. All enterprises in the market regulate their activities by paying due consideration to those of their competitors. As the market is a transparent one with strict oligopolistic features, enterprises continuously observe each other's behavior, especially those related to price movements, and very quickly receive information on the actions of any enterprise in the market. In an environment where few companies operate, an interdependency emerges and this has an impact on price decisions. The market structure in question results in the establishment of a balance among a few companies, the leading firm is followed and when one of the followers introduces a price increase, all others are informed and act similarly.*

After the inspection of the relevant report and file, it was by a MAJORITY VOTE decided that it was not necessary to initiate a preliminary inquiry or to open an investigation against the companies PMSA Philip Morris Sabancı Pazarlama ve Satış A.Ş., JTI Tütün Ürünleri Pazarlama A.Ş., Tütün, Tütün Mamulleri Tuz ve Alkol İşletmeleri A.Ş. and British American Tobacco Exports B.V. in respect of the increases they have jointly effected on cigarette prices and that the complaint should be rejected."³²

Certain decisions made by the Competition Board after examining allegations of concerted practice state that it is out of the question to consider the existence of concerted practice without corroborating evidence or sufficient findings:

With due consideration to the special features of the relevant markets where enterprises display parallel behavior due to price following stemming from the existence and activities of the state-controlled "TEKEL" Administration (General Directorate of Tobacco Products, Salt and Alcohol Operations), we hereby decide by a MAJORITY VOTE that other than economic and rational reasons, there is no sufficient evidence to prove that the price parallelisms established during the investigation are the result of concerted practice by the investigated enterprises in a manner that would violate Law No. 4054, and that there is no need to impose an administrative fine."³³

Similarly, in its following decision, the Competition Board once again ruled against the initiation of an investigation against the enterprises mentioned in the decision, on the grounds that there existed no strong evidence to support the allegations of concerted practice:

³² Decision of the Competition Board No: 04-31/365-91, File No: 2004-3-37 ("Cigarette Decision")

³³ Decision of the Competition Board No: 02-80/937-385, File No: D3/1/BB-01/2 ("PMSA Philip Morris – JTI Tobacco Products Decision")

“In light of the above information, we hereby decide by a MAJORITY VOTE that an investigation against Dalsan Alçı Sanayi ve Ticaret A.Ş. and Entegre Harç Sanayi ve Ticaret A.Ş. is not necessary, as it has been observed that there exist no strong evidence that these two enterprises have engaged in the activities prohibited by Article 4 of Law No. 4054.”³⁴

The *Newspaper Publishers* decision is another very important decision stressing the fact that the standards existing in the competition law systems of the US and the EU are imperative for any regime seeking material facts and ruling that this fact does not change due to the existence of a presumption of concerted practice. This decision stated that the existence of price parallelism among enterprises operating in an oligopolistic market in which costs are different and prices resemble those in markets where competition is restricted, prevented or hindered, is not sufficient for claiming concerted practice, that it should be proven that there exists a “relationship which prevent enterprises from acting independently”. As a result of the relevant investigation, the claim for concerted practice was supported by corroborating evidence and it was decided that the enterprises were involved in concerted practice. In view of its significance, we quote this decision in detail below:

The subject matter of the investigation is the establishment of the sales price through concerted practice. A behavior can only be defined as concerted practice under the following conditions:

- *There must have been positive contacts between the parties such as meetings, discussions, exchanges of information, which are generally expressed orally or in writing,*
- *such contacts must be aimed at influencing the market behavior and especially eliminating the uncertainty of an enterprise’s future competitive behavior in advance,*
- *they must have influenced or changed the commercial behavior of the concerned enterprise in a manner that cannot fully be explained with reference to competitive effects.*

The crucial issue here is the information obtained by the enterprises about the future behavior of their competitors and the elimination of market uncertainties.

Another important issue involved in concerted practice cases is the determination and proof of the fact that enterprises were engaged in concerted practice. Law No. 4054 stipulates that a presumption for a concerted practice can exist when price changes or the supply-demand equilibrium or the territories of enterprises become similar to markets where competition is prevented, hindered or restricted and imposes on the parties the burden to prove the non-existence of concerted practice by citing economic and rational grounds. However, as is the case in the present investigation, it is not sufficient to claim that prices were set in a manner similar to price-setting in markets where competition is restricted. In addition to this, it is necessary to prove

³⁴ Decision of the Competition Board No: 03-78/948-392, File No: 2003-1-48

the existence of a relationship between the enterprises which would not have existed under competitive conditions and which prevented them from acting independently.

The following three basic findings are sufficient to establish the existence of concerted practice:

- i- The existence of a relationship between competing enterprises,
- ii- the existence of actions among competing enterprises which lead them to take a joint stand and influence the actions of other competing enterprises;
- iii- the existence of a situation where competing enterprises are no longer able to act independently.

It has been observed that the prices of political newspapers and sports newspapers, which do not have to be parallelly priced, have been very close to each other with the exception of very short periods of time. It was also established that the rates and dates of their price increases were the same. The interrelations between the prices has also been demonstrated through correlation coefficients.

It is observed that the costs of the parties under investigation are in general different from each other. Therefore, its does not seem possible to reach the conclusion that the prices of newspapers were kept at the same level because the costs were the same.

The dailies *Hürriyet*, *Milliyet* and *Sabah*, whose circulation figures and sales revenues are close to each other but whose advertising revenues are at different levels, have maintained their prices at the same levels, and have increased them on the same day and at the same rates. It is not an economic and rational justification to claim that this was the result of the fact that their cost structures were similar.

The statement that competitors' price strategies were learned of through distribution channels or dealers and that price increases were introduced on the same date is far from explaining why the price increases were introduced following the dates specified in the meeting notes obtained by the investigators during the dawn raid which contain information concerning price changes.

The actual prices the parties applied especially during the year 1997 cannot be explained by cost increases arising from inflation and the increases in raw material prices. This is because, as explained earlier, prices had been significantly reduced during this period and this situation continued for approximately ten months. The fall in prices during this time period and the return to pre-discount level towards the end of the year cannot be explained by claiming that the parties' cost structures were similar.

...

The markets of the investigated daily political and sports papers, DEMONSTRATE oligopolistic features. Although we realize that both groups procure their raw materials from abroad and therefore their costs are similar, this is an incomplete assessment. Also considering observations regarding the newspapers industry, we must not overlook the fact that the differences between the parties' advertisement revenues would naturally have an impact on their cost structures, and thus prices. Under these circumstances, the similarity of certain cost elements does not justify

both groups' applying identical prices for a given time period (and even introducing price increases on the same date and at the same rate).

...

Even if we set aside the economic results that were obtained, we conclude that there existed a cooperation among the groups in the political and sports dailies market, when we consider that meetings were held between the parties especially with a view to establishing newspaper prices, that decisions were made and subsequently implemented. This cooperation and the meetings that were held by the parties eliminated the obligation to “make independent decisions”, the basis of competition between companies. Each company has the freedom to determine its actions according to the conditions that prevail in the market in which it operates. This a requirement of business life. However, meetings between the parties where decisions are made on issues such as prices, which should actually have been determined by the market, hinders the proper functioning of the market. Therefore, the elimination of the uncertainty that stems from not being able to know how the competitors will act in the future means that the actors in the market will not take demand effects into consideration in making their decisions. This constitutes a typical example of markets where competition is restricted... ”³⁵

As all the above decisions show, the issue of concerted practice has been taken up in similar ways by US competition law, EC competition law and, for a considerable period of time, Turkish competition law. But later on, with recent decisions of the Competition Board³⁶ a different and more aggressive “presumption of concerted practice” approach has emerged and we have reached a point where it has become necessary to carefully examine the various issues we have discussed in this paper.

5 Conclusion

Policies and standards to be used to deal with concerted practice have already become one of the most important issues of competition law all over the world. Although Article 4 of the Competition Law provides for a tool that does not exist in the legislation of any other country, the primary obligation of the Competition Board is to ensure that the presumption of concerted practice is used in moderation and in harmony with the specific conditions of each investigation, and that this presumption is abandoned in cases where it may pose a threat of diminishing welfare in the long run, rather than serving the purpose of the investigation. If “determining material facts” and “avoiding to punish enterprises for reasons that arise from the structure of the market” have equal weight in a Turkish competition investigation as it does in foreign competition law enforcement regimes (and we hope they have equal weight), one should undertake a careful legal and economic analysis before making new decisions that further lower the standards of proof in a certain competition law system, while some other competition law systems are actually introducing a stricter standard of proof.

³⁵ Decision of the Competition Board No: 00-26/291-161, File No: D2/2/Ş.YA.-99/1 (“Newspaper Decision”)

³⁶ For example, Decision of the Competition Board No: 05-05/42-17 dated 13.01.2005 (Göлтаş – Denizli Çimento Decision”) and Decision of the Competition Board No: 05-60/896-241 dated 23.09.2005. (“Yeast Decision II”)

We hope that in this paper we have emphasized two points: First, economic theory does not support the naked application of the logic of presumption. Especially in cases where the resemblance condition is met lightly –which is part of our definition of the naked application of collusion- the chances of type-one error is high. Second, the naked application of the presumption, that is, deciding on the existence of a violation merely on the basis of market outcomes and without any evidence of a contact, is not compatible with international practice and is actually an unprecedented and untried or abandoned initiative.

The analysis offered in this paper also reveals that, when used as such, the presumption of concerted practice also becomes vaguer when compared to international practice, and needs to be defined. US competition law explicitly stipulates that actions of coordination which do not involve direct or indirect contact are not considered a violation of competition, and the EU practice is similar *at least* as far as evidence required for proof is concerned. However, in the event of a naked application of the logic of presumption, the situation will not be so clear. As we have asked above, what is the presumption a presumption of? Is it a presumption of tacit collusion, or of a contact that cannot actually be proven, or for which there is no evidence, but which helps enterprises to coordinate their behaviors?

These two observations demonstrate the importance of the participation of the Competition Board in discussions around the presumption provision. It would be most beneficial for the Competition Board to voice its opinions on the following subjects, if this discussion is to be successful:

- What does the term “concerted practice” mean to the Competition Board?
- Is tacit collusion, that is, an attempt by enterprises to coordinate through their actions in the market, without any direct or indirect communication or contact aimed at establishing coordination, an infringement of competition law ?
- What is the analytical basis of seriously diverging from international practice? How can type-one errors be avoided if recourse is made to the naked application of presumption in its current form?

Needless to say, the mere divergence of Turkish competition law from US or EU competition law is not in itself a reason for criticism. If the conclusion is reached that international examples are incorrect or they should be reviewed in the face of developments, it would naturally be correct and necessary to develop interpretations and practices that are different from these examples. Furthermore, it is clear that merely copying international examples without questioning them would have drawbacks and lead to intellectual indolence. Nevertheless, we should not overlook the fact that especially the practices of the USA and the European Union have been decided upon after long years of experience and learning, that they are based on significant economic and legal experience, and that the academic world has made a huge contribution to the formation of this basis. Under these circumstances, before switching to a system that seriously diverges from these examples, one should carefully discuss the reason for the change, the inadequacies of the examples, how the new system would contribute to eliminating these inadequacies and the types of new risks they may involve.

Such an analytic attempt has most probably been made during the preparation of the Law on the Protection of Competition. However, these discussions were not shared with the public. This has not been of great significance so far because, although the law permitted the naked application of the presumption provision as explained herein, the practice was close to that of the European Union. However, we now observe that the situation has changed. The Competition Board has not as yet made any explanations that provide replies to the above queries, and it should.

If consensus can be reached that the naked application of the presumption provision can lead to frequent type-one errors, the first issue to be discussed would probably be whether or not there exist any conditions other than the “resemblance condition” that would minimize the risk of a type-one error. For example, would different triggering conditions for different dimensions of presumption of concerted practice have any benefits? Can the resemblance condition itself be formulated in a different way? If the main purpose of using a provision such as presumption is to reduce type-two errors, under which conditions are such errors more probable? Do price parallelism or parallel price increases constitute one of these conditions? Multiplying such questions and discussing issues would help us review the concept of presumption.

Defining the boundaries for punishing tacit collusions is one of the most intractable areas of competition law. Resorting to easy labels and considering the naked application of the presumption of concerted practice as sufficient proof in itself would not contribute to the solution of the sophisticated issues in this area, but would merely and probably perversely suppress the issue temporarily. In the meantime, enterprises will continuously be under the threat of punishment. Therefore, it is now time to design a more careful implementation in the competition law doctrine, including the issue generally known as “the oligopoly problem”, in relation to parallel actions which do not constitute “agreements”, despite the existence of the “presumption of concerted practice”. This study, aimed at taking a minor constructive step towards this objective, contains certain analyses to review the implementation of the presumption of concerted practice.

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