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Procedia Economics and Finance 6 (2013) 213 – 223

Procedia
Economics and Finance

www.elsevier.com/locate/procedia

International Economic Conference of Sibiu 2013 Post Crisis Economy: Challenges and Opportunities, IECS 2013

Parallel Behaviour - Primary Evidence of an Agreement

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Abstract

The distinction between legitimate oligopoly and cartels is tackled by each competition authority. A parallel behaviour in an oligopolistic market might be seen as an anchor for competition's effectiveness, given that companies are required to respond to the decisions of other competitors, trying to keep a realistic and competitive position to ensure welfare. Cartels offer an opposite perspective of what competition really means. Apart from the observation of the econometrical model presented in the article, the final assessment should consider the particularities of the legal and economic environment, to conclude on the existence of a cartel based on reasonable grounds.

Selection and peer-review under responsibility of Faculty of Economic Sciences, Lucian Blaga University of Sibiu.

Keywords: competition; parallel; behaviour; agreement.

1. Introduction

Competition law and policy forbids all types of anti-competitive agreements, either express agreement or implicit agreement, identified as "agreements" or concerted practices.

The evidences used by the competition authorities in order to demonstrate an agreement could be classified into two categories: direct evidences or circumstantial (indirect) evidences. Whenever the agreement cases could not be built based on direct evidence, the courts require additional evidences proving their existence, including evidences of competitors' communication and even an economic evidence, the latter referring to analyses of business behaviour, of market structure etc.

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Selection and peer-review under responsibility of Faculty of Economic Sciences, Lucian Blaga University of Sibiu.
doi:10.1016/S2212-5671(13)00134-2

A certain type of circumstantial evidence consists in economic evidences, these including on the one hand, references to the conduct of market's participants suggesting that they are acting jointly. On the other hand, economic evidences include also references to market's structure which can lead itself to a collusive activity.

In this article, the first part is designed to find out whether parallel behaviour could help us to sustain the necessary legal proof of collusion. Further on, in the next section, we will examine whether the two phenomena – prices' parallelism and market's shares setting – may contribute to inference that firms colluded.

Competition authorities often consider that prices' parallelism and market's shares setting do represent real indicators of agreements or concerted practices. However, this reasoning could seem contrary to theoretical results. We will make a connection between market outcome – what we are able to observe - and firm's conduct - what antitrust prohibition aims at.

Thus, we will present a competition model based on prices, with differentiated outputs in which the demand and costs fluctuate in time. If the market is disrupted by demand or supply shocks corresponding to all companies, we will see that prices' parallelism could appear both in a competitive environment and in a collusive equilibrium without understanding which of them occurred. We will also show that a competitive equilibrium is characterized by a greater market shares' stability than a collusive one.

The ability to relate to a possible collusive behaviour is based on the fact that, if enterprises wish to avoid consequences on competition, they should adopt a similarly conduct. By observing market dynamics concerning prices, volumes and market shares according to such a system, we could suppose that companies have initiated a joint plan as a result of their agreement.

2. Collusive equilibrium and the legal evidence of the agreement

Legal advisers and economists assign different meanings to the word "collusion". If for the first ones the term defines an anti-competitive practice, for the second ones it shows a market result in which the prices are above the competitive equilibrium, identified by the static equilibrium of a game, regardless of the way by which this result is achieved.

In this paper we will use expressions like: "agreement", "collusive behaviour" and "conspiracy", according to legal definition. By using terms as "collusive equilibrium" and "agreement", we refer to the economic notion.

A question that often appears in the literature in the field is whether we could conclude that companies colluded from observing a collusive outcome. Both collusive behaviour and collusive equilibrium are not in a necessary relation nor in a sufficient one, the response to the question mentioned above being probably a negative one.

Economists have demonstrated that an agreement (accord/conspiracy) is neither necessary nor sufficient (because it is illegal and facultative) in order to achieve a collusive equilibrium. It results logically that, if we were able to establish with certainty that the equilibrium is collusive or competitive, this could not prove convincingly that an agreement occurred or not.

Further on, we will show that there is a distinct answer if we ask the following question in a different way: Could we pretend that, by observing a collusive equilibrium, it contributes to the establishment of a legal evidence of collusive behaviour? Thus we will try to demonstrate that such a situation is possible. A legal proof, unlike a logical or mathematical one, does admit a certain degree of uncertainty. A supposed infrigement is legally proved if the probability that the legislator pay attention to an illegal event, *p,* surpasses a certain threshold, *s,* defined by the standard of the evidence. In order to make a decision, a court gathers evidences affecting the value of probability designed by *p.*

As a consequence, we could say that *p* represents the probability that a supposed violation, *I,* has appeared, being influenced by the evidences gathered by the court, *E.* We write formally that: $p = P(I / E)$.

Now, if there is an additional evidence, *e,* we could say that: it *contributes* to the evidence's building if $P(I / E \cup e) > P(I / E)$; it *does not contribute* to the evidence's building if $P(I / E \cup e) < P(I / E)$; it is *irrelevant* if this probability remains unchanged, meaning $P(I / E \cup e) = P(I / E)$.

Being *e* a collusive result, *I,* a collusive agreement and $P(I) = p$ as (unconditional) probability of the event *I* before knowing that the result is a collusive or a competitive one, as a consequence $P(e / I)$ is the probability of *e*