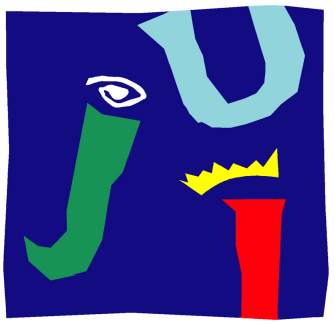

UNIVERSITAT JAUME·I

FINAL DEGREE PROJECT

"UNFAIR COMPETITION AND MARKET SHARING: THE CASE OF PAPER AND CORRUGATED BOARD MANUFACTURERS".

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Abstract

The aim of this paper is to analyse the different anti-competitive practices that took place during the period between 2008 and 2014 in the case of paper and corrugated cardboard manufacturers, and to find out how these practices affected the market and society itself. To do so, I will analyse the market in order to have a context of the situation of the companies involved in the case. I will then review the theoretical and legal framework for this type of cases in order to determine which were the anti-competitive practices carried out by the companies. I will then set out the regulations applied to these anti-competitive practices and the economic sanctions established for the different companies and the resolution of the case by the CNMC.

Finally, I will provide a conclusion taking into account all the data studied and the problems that exist in this case, as well as a more subjective reflection on the case and the tools that exist to be able to locate cases of this type and eradicate them.

TABLE OF CONTENTS

Figures

Tables

"UNFAIR COMPETITION AND MARKET SHARING : THE CASE OF PAPER AND CORRUGATED BOARD MANUFACTURERS".

1) INTRODUCTION

In this paper I will present the case of different anti-competitive practices that occurred in the paper and board market, which are used for the creation of products, after their transformation, such as packaging products.

This investigation began in January 2013 due to the arrival of confidential information, and so the actions of the different companies began to be investigated in order to detect these possible actions and, if they existed, to find out their magnitude. These alleged practices consisted of both agreements regarding the level of prices to be established, as well as market sharing, among other practices punishable by law that I will analyse later on.

In order to do so, I will define the market, analyse the current regulation with regard to these cases of unfair competition, show similar cases in order to have a more general view of the problem in question and also review what tools the CNMC has to act against such irregularities.

2) MARKET ANALYSIS

2.1. MARKET DEFINITION

The markets to be studied in this paper are the markets producing the pulp and paper used for the production of corrugated board, the market for the production of corrugated board, mentioned above, and finally the market responsible for the process of converting board products into products for the packaging market.

Analysing the production of these products, as can be seen in the case dealt with by the European Commission (European Commission, 2001), it must be considered that the processes of both the manufacture of paper and corrugated board and the manufacture of paper and board packaging are made up of different phases, which generate what are known as intermediate products. These can be defined as distinct markets. Therefore, the existence of segregated markets for corrugated materials, cellulose pulp, corrugated boxes and finally corrugated board sheets as determined in the work of (European Commission, 1992) must be supported.

On the one hand we find corrugated materials, which we can define as an intermediate product, from which corrugated cardboard is produced and, immediately after its production, it can be transformed into cardboard packaging or cardboard boxes. This type of material can be obtained in its entirety from paper products with a high level of recycled paper, this process is known as "kraftliner", on the other hand, another method is its production via totally recycled products, this technique is known as "testliner". Within this market, the latter technique has been considered separately in a number of cases prior to this one and has therefore been further investigated in terms of the level of reused fibres used in the process. In conclusion, it has been established that both the kraftliner and testliner techniques are highly substitutable, so that their level of cross-substitutability is very high. as in the case studied (European Commission, 2000), and in this case it is added that the markets for these goods had similar price fluctuations.

Another product is cellulose pulp, which is the main material for the manufacture of the different products that are generated from paper. This material is obtained through an industrial process and is mostly made from recycled paper or wood. In terms of obtaining this material, a distinction is made between two types, on the one hand we find those known as paper factories that obtain the pulp themselves (which in this case are called "integrated factories") or, on the other hand, we have the other factories which use the pulp that they buy from external companies, i.e. they are not producers of this raw material (called "non-integrated factories").

Although the so-called "cellulose pulp" has different properties depending on its wood origin and certain characteristics, which make it more suitable for certain purposes or for others, it can be seen in the previous Community cases that there is a

high degree of substitutability between the different types of pulp that can be obtained, a clear example of this substitutability is the case of (European Commission, 2005), so we can consider it as a single market.

On the other hand, studies can be found, which analyse the market, including that of (Smith, 2012, p.13) that point to the differentiation between heavy corrugated boxes and offset lithographed corrugated boxes from the rest of the corrugated boxes.

Finally, corrugated board sheets are made of corrugated materials and consist of a layer of smooth cardboard of the same shape for the top and bottom of the sheet, regardless of the production technique used (kraftliner or testliner). These cardboard sheets are used to produce different types of corrugated cardboard boxes and are therefore considered as an intermediate product, which are mostly used for transport packaging. In various precedents of studies generated in the European Community, such as that of (EC, 2005), it is corroborated that different types of cardboard can be used for the production of cardboard boxes, from the one known as heavy corrugated cardboard to its simplest form, also known as microflute cardboard.

Thus, in the work of the (CNMC, 2014) it is observed that what are known as heavy corrugated cardboard boxes are designed in most cases for particular orders, so they cannot be considered interchangeable with other types of boxes as they are created in a more specific way. Therefore, this type of box does not compete with cardboard boxes but with packaging that can offer similar characteristics to those offered by cardboard boxes, in this case these products would be wooden crates and transport sacks. These types of boxes are mainly used for transporting heavy goods, whether they are used in the industrial or automotive sector, etc. On the other hand, these boxes are manufactured in special production facilities, this is because the machinery used to produce these products is of larger dimensions and must be able to work with heavier and larger cardboard sheets. The most common definition of heavy corrugated boxes, according to the above-mentioned market studies, includes double- or triple-layer boxes provided they have at least one A-wave paper and weigh more than 800 g/m2 . However, only triple wall board can be classified as heavy corrugated board. Smith's market analysis (Smith, 1999, p. 3-4) shows that triple-wall corrugated boxes compete with other forms of transport packaging and that there is a trend to replace triple-wall boxes by heavy double-wall boxes.

The term 'offset lithographed corrugated boxes' refers to secondary packaging which is mainly used for the transport of goods, but is also used for shelf-ready packaging, which is the direct display in retail outlets. These boxes must therefore meet the requirements for transport and display to the public. The main distinction between this segment and other corrugated boxes lies in the printing technique used on the packaging with high-quality image offset printing. The production of offset litho printed corrugated boxes requires different machinery and equipment from those used to produce conventional corrugated boxes from the point of view of supply substitutability, and this requires high capital investments as the level of technology is higher in this case.

Following this market analysis, it can be considered that the markets harmed by these inappropriate practices are the following:

- Manufacture of paper for corrugated board production

- Corrugated board manufacturing

- Converting corrugated board sheets into packaging and packaging products

2.2) GEOGRAPHICAL MARKET

It is interesting to analyse the delimitation of the relevant geographic market, since as I have announced earlier in the paper the companies agreed on constant price increases due to an apparently dominant position in the market where they operated. This analysis will provide a better understanding of the situation of these companies in the sector and of the situation of the paper and corrugated board sector itself.

For this analysis it is crucial to define whether the companies that were part of this network enjoyed a position of market power and, if so, what was their level of market

power. In this way I will know the extent of the market power of these companies and whether in this way they carried out price increases and market-damaging actions.

In this way, I will now define and study the geographic market in this sector, with the intention of knowing the scope of this market and thus being able to determine whether these companies were in a dominant position in the market.

As far as geographic market studies are concerned, several studies carried out by the European Commission have concluded that lightweight corrugated board can be transported up to 400 km from its production plant. One of these market studies is that of (EC, 2005) cited above, which has confirmed that the relevant geographic market is limited to a radius of 300-400 km from the production plant. For this variant of corrugated board we also find studies which conclude that the major drawback for the transport and supply of corrugated board is the long distance transport as concluded in the case also mentioned above (EC, 2001), which could thus help to delimit the geographic markets.

In the case of light corrugated boxes (produced from light corrugated board), a geographic market of a radius of 200-300 km from the producing company is found. This is mainly due to their low density and relatively high transport costs. In these cases the transport cost is usually around 10% of the selling price.

On the other hand, in the case of heavy corrugated cardboard sheets, these sheets can be transported over longer distances than the light corrugated cardboard sheets mentioned above. For this type of boxes it is observed that it is feasible to transport them over longer distances, as their added value is higher, so their transport costs do not represent as much of a percentage of their added value as explained in the research work (Smith, 1999, p.5). Thus, it can be concluded that the relevant geographic market is large and should therefore be considered larger than the national one.

In all cases it can be concluded that transport costs represent an important point which helps us to define the market, so producers estimate that the maximum transport radius for this type of product is between 400 and 1,000 km, as concluded in the work

of (Smith, 2012, p.22), and yet for transport to be viable at these distances the producer must have an efficient structure, which integrates suppliers. Another difficulty to be taken into account in the transport of these materials is that of sea transport, as they are sensitive to humidity and can therefore suffer deformation or damage during transport.

Thus we find that the market for paper and corrugated board in our country has a low cross-price elasticity, since transport costs limit the scope of the geographic market, and it can therefore be concluded that the level of power of local firms is high. Therefore, in this market, it can be said that local companies have a competitive advantage over companies further away, so they may have been encouraged to increase these margins by agreeing on a price increase in the sector's companies so that after the increase, the market is shared out in the same way as it was before and producers obtain higher profits. If prices had not been agreed, these price increases would not have taken place or would have taken place to a lesser extent, as the consumer might have considered the idea of obtaining the carton from another company that is further away but maintains the initial price of the carton.

In this particular case, it can be seen that the participants in this case of collusion or imperfect competition represented practically the totality of the domestic producers in the sector, resulting in a market share of about 72%.

Table 1. *Market concentration shares.*

EMPRESAS	M^2 cartón ondulado	Cuota
GRUPO SAICA	[900-950]	[15-20] %
SMURFIT KAPPA	[750-800]	[15-20] %
GRUPO PETIT	[400-450]	[5-10] %
CARTISA	[400-450]	[5-10] %
LANTERO	[300-350]	[5-10] %
EUROPAC	[300-350]	[5-10] %
HINOJOSA	[250-300]	[5-10] %
Otros	1318	27%

Source: cnmc.es. Case of paper and corrugated cardboard manufacturers

Thus, if we analyse the average market concentration share, we see that it is between 7.8% and 12.85%. With this data we can calculate the Herfindahl-Hirschman index, which will result in a value of 1 if the case being analysed is a pure monopoly, and this value will decrease as the level of concentration decreases and with it less market power.

Table 2. *Concentration indices***.**

$HHi: \frac{0.1285^2+1}{2} = 0.145$	$HHi: \frac{0.078^2+1}{2} = 0.143$

Source: Own elaboration with data table 1

Thus, the calculation of the index in this case yields a value of between 0.143 and 0.145, so we could conclude that there is some market power, especially taking into account the delimitations of this market due to its geographical limits mentioned above.

Having calculated the level of concentration in the market in this case, we see that these firms acted in an anti-competitive manner, i.e. they benefited from a dominant position in the market and thus were able to abuse market power.

These situations of abuse of dominant position in the market, as we see in the publication of (Sharma, 2019) can be defined as a position, which the company enjoys, and this allows it:

- Act independently of anti-competitive forces prevailing in the marketplace
- Harm your competitors, consumers or relevant market to your advantage

It is therefore observed that companies that enjoy this dominant market position can engage in acts such as directly or indirectly imposing unfair or discriminatory practices in the market, limiting the production of their goods or the provision of services of any kind, making it difficult for new potential competitors to enter the market, using their dominant position in a relevant market to enter or protect another relevant market, among others.

In these cases, the company's conduct can be analysed to determine whether the company has abused its dominant position in the market. As (Sharma, 2019) says in his publication, this way of analysing the company would be through three stages, which are listed below:

- Define the relevant market
- Determine whether the undertaking under consideration is in a dominant position in the relevant market.
- Determine whether the actions of the undertaking in a dominant position have given rise to a situation of abuse of its advantageous position.

One of the techniques most commonly used by firms that enjoy this dominant market position is predatory pricing, in which they reduce their selling prices so that firms with less market power are forced to exit the market because they cannot compete. Another technique widely used by the companies that carry out these actions is the one discussed in this paper, in which the companies, which have a high market power as a whole, could agree on prices to raise them and share the market in turn.

SIMILAR CASES

Within this problem there have been several cases throughout history, so I am going to refer to some of the most famous ones in order to have a little more insight into the problem that is being studied.

The Google case : This is a recent and very well known example of abuse of market power. This is the case of the company GOOGLE, which was denounced and investigated by the European Commission for infringing EU antitrust laws. Specifically, the company was systematically favouring its price comparison system over those of its competitors, thus hindering the user's free choice. This case is a major case of abuse of dominant position in the market since Google dominates the market for general online search services throughout the European Economic Area, as we can read in the publication of (European Commission, 2015) this market dominance reaches the figures of having market shares above 90% in most EEA countries. GOOGLE was thus accused of systematically and prominently positioning its

web-shopping service against other competitors, regardless of the merits. In this way the new service, the so-called "GOOGLE SHOPPING", obtained a high growth, much higher than that of its main competitors and contrary to a previous service they launched, called "FROOGLE", which performed poorly and unlike the previous one did not get any preferential treatment.

The case of concrete and related products: Another example of a case similar to the one under study is the case of cement in Spain (Comisión Nacional de los Mercados y la Competencia, 2012), in which during 2009 the National Competition Council initiated an investigation into national companies producing grey cement, in which they were investigated for a possible price-fixing agreement and a sharing of the market for concrete, mortar and aggregate for different works. In this way, the member companies shared the market, as has been demonstrated in the study carried out by the CNMC (CNMC, 2012, p. 54) in the Pamplona area.

We also find in the study carried out by the CNMC emails in which we can read how those involved agreed prices by email, increasing in a few months the cubic metre of concrete, mortar and aggregates (CNMC, 2012, pp. 98-99).

3) THEORETICAL AND LEGAL FRAMEWORK OF UNFAIR COMPETITION

Unfair competition is understood as all those acts that attempt to harm the functioning of a market or the decisions or wishes that consumers and users of these products may have....

In order for an act to be considered unfair competition, the following conditions must be met:

- The act itself must take place in the market, which means that it must be an act of external significance.

- That the act is done for competitive purposes; these purposes are assumed when the act is done in an objectively appropriate manner to encourage or ensure the dissemination on the market of one's own or a third party's benefits.

As far as the legal framework is concerned, as we can see in the LEASBA publication (LEASBA, 2019), there are various instruments to prevent these market-damaging practices:

- The **Unfair Competition Act 29/2009**, which is based on the principle of free enterprise and protects the market from unfair practices, aims to establish mechanisms to curb unfair practices that undermine the market in relation to supply and demand.

- **Directive 2005/29/EC**, which aims to regulate the use of unfair commercial practices that indirectly affect consumers. These practices may not be used either before or after a consumer purchases a product.

On the other hand, within the European Union we also find tools of direct application, the regulation 864/2007, which covers two specific scenarios, these scenarios would be the following:

- Actions arising from practices that are deemed to constitute unfair competition: These are covered by Articles 4, 6.1 and 6.2.

- Actions intended to restrict free competition: These are covered by Article 6(3) of the European Regulation.

In order to facilitate detection, the law provides a list of specific conducts which can be classified as unfair, these conducts would be the following:

- **Acts of confusion**.

- **Acts of deception**.

- **Misleading omissions**: The law considers as unfair acts such as omitting or concealing information necessary for the recipient to make an informed decision about his or her economic behaviour with some knowledge of the facts. It will also be considered dishonest if the information provided is unclear, vague, ambiguous, if it is not provided in a timely manner or if it is unclear in context because it does not disclose the commercial purpose of the practice.

- An unfair act is considered to be **any behaviour**, the characteristics of which are known to the **recipient and which** may, through **harassment, coercion, including the use of force, or undue influence, affect the recipient's freedom of choice or conduct** in relation to the good or service offered and which may thereby affect the recipient's behaviour.

- **Acts of vilification**.

- **Acts of comparison**: That is to say public comparison, this includes cases of comparative advertising, which may be through implicit or explicit allusions to competitors will be permitted if they meet the following guidelines:

- (a) The purpose of the goods or services offered must be the same or meet the same needs.

- (b) The way in which they are compared is objectively between the characteristics possessed by the goods or services, which could include price.

- (c) In the case of goods or services with a designation of origin or a specific or special characteristic, they may only be compared with products of the same designation.

- (d) The presentation of goods or services which represent a replica of other goods or services which are under a protected trade name shall be prohibited.

- (e) The assessment of its own similarity may not override Articles 5, 7, 9, 12 and 20 L 3/1991 in respect of acts of deception, denigration and exploitation of another's reputation.

- **Imitation acts**.

- Profiting from the reputation of others

- **Breach of secrets**: It is also considered an act of unfairness to publish business secrets, which is governed by the current legislation on business secrets (Article 13 LCD) (Law 1/2019 of 20 February on Business Secrets).

- **Acts of inducement to breach basic contractual duties**: As announced in Article 14 LCD, unfair actions are also considered to include pressure on customers, employees or other persons bound by confidentiality to disclose competitive information. These actions will have unfair effects if their purpose is to disseminate or benefit from these business secrets, or if they are accompanied by situations such as the intention to reduce the level of competitors, to mislead or other such circumstances.

- **Acts of violation of rules**: Another point that will be considered unfair is the act of maintaining oneself in a market in which one has a competitive advantage and this has been obtained by a method which is punishable by law. It is also considered unfair to infringe legal rules whose purpose is to regulate market activity (Article 15 LCD).

- **Acts of discrimination**: Discriminatory treatment of consumers in terms of prices and other conditions of sale is also considered unfair conduct, unless there is good cause. It shall also be considered unfair for a business to exploit the economic dependence of its customers or suppliers who do not have an equivalent alternative for the exercise of their activity.

- **Acts of underselling**: The choice of price level is a free choice, on the other hand, if the selling price is settled below cost or below the purchase price, an act of unfair competition could be considered to be taking place. This will happen when one of the following situations occurs:

- (a) the price is likely to mislead consumers about the price level of other products or services in the same establishment;

- (b) is intended to discredit the image of another's product or establishment;

- (c) it forms part of a strategy aimed at eliminating a competitor or group of competitors from the market.

4) ANTI-COMPETITIVE PRACTICES CARRIED OUT

During the whole process there are different situations of anti-competitive character due to the high number of companies that were part of this strategy and that as a whole all of them carried out anti-competitive practices, but within these practices each company has its own case, so I will proceed to analyse it in more detail.

In an overview of the case, it has been possible to corroborate the constant flow of contact between competitors, by means of which they took advantage of constant price increases, market sharing or exchanges of sensitive information, as can be seen in the study by (CNMC, 2014, p.32).

Thus, as the members of the CNMC team concluded in (CNMC, 2014, p. 36), we can group the facts into three distinct blocks:

- Firstly, there was a very close relationship between the companies SAICA and LANTERO between 2003 and 2008, which were direct competitors in the corrugated

concrete production sector. This situation could be accredited due to the information gathered by the Commission during the inspection carried out at LANTERO's offices.

- Secondly, the existence of the so-called "tables" was corroborated, which were located in different locations and were classified depending on the situation of the company to which they were offered, according to the sector in which they operated. At these tables, agreements were discussed and dealt with, covering both price levels and the distribution of customers.

- Finally, thirdly, the existence of cooperation between companies, which materialised through different sections. These included contacts at more generalised levels (which were carried out from the companies' offices) or at local levels (making use of the companies' own commercial departments).

Thus all of the following companies engaged in the anti-competitive conduct listed below:

- During the period between 2008 and 2013, the paper manufacturing sector saw exchanges of information classified as sensitive and confidential. The companies that carried out these actions were the following: CARTISA, CMPETIT, SMURFIT, SANTORROMAN, EUROPAC, LANTERO AND MICROLAN. In most of the exchanges, the companies had AFCO as an intermediary.

- During the period from 2002 to 2013, in the corrugated cardboard production and processing sector, there were exchanges of sensitive information and constant agreements on price increases, in addition to market sharing between the companies PAPELERA DEL EBRO, MURCIA CARTON, COLSA, CELTIBOX, SAICA PACK, LA PLANA, INSOCA, CMPETIT, HISPANO, VEGABAJA, SMURFIT, CARTISA, HINOJOSA, EUROPAC, LANTERO, SAICA, CARTONAJES EUROPA, SICESA, DICESA and DAPSA.

It should be noted that the companies COLSA and CELTIBOX remained in operation during these years, although they were subsequently taken over by the SAICA PACK corporation and in March 2010 their trade names disappeared.

5) LAWS INFRINGED AND REGULATIONS APPLIED

In this case, the 19 companies charged infringed different articles of the different competition laws, so I will now explain which laws have been infringed and which conducts are prohibited by these laws.

Thus, the laws that were violated by these companies are as follows:

- Article 1 of Law 16/1989 of 17 July 1989 on the Defence of Competition, in force for part of the period under study (until 2007) (Cortes Generales, 1989, Article 1).

Article 1 . Prohibited conduct.

1. Any collective agreement, decision or recommendation, or concerted or consciously parallel practice, which has as its object, produces or may produce the effect of preventing, restricting or distorting competition in all or part of the national market, and in particular those which consist of:

(a) Fixing, directly or indirectly, prices or other commercial or service conditions.

(b) limitation or control of production, distribution, technical development or investment.

(c) Market or supply sharing.

(d) The application, in commercial or service relations, of dissimilar conditions for equivalent services which place some competitors at a disadvantage compared to others.

(e) making the conclusion of contracts subject to the acceptance of supplementary obligations which, by their nature or according to commercial usage, have no connection with the subject-matter of such contracts.

2. Agreements, decisions and recommendations which, being prohibited by virtue of the provisions of paragraph 1, are not covered by the exemptions provided for in this Act, shall be null and void.

- Article 1 of Law 15/2007, of 3 July 2007, on the Defence of Competition (LDC) (From 2007) (Jefatura del Estado, 2007)

Article 1. Collusive conduct**.**

1. Any collective agreement, decision or recommendation, or concerted or consciously parallel practice, which has as its object, has or may have the effect of preventing, restricting or distorting competition in all or part of the national market, and in particular those which consist of:

(a) Fixing, directly or indirectly, prices or other commercial or service conditions.

(b) limitation or control of production, distribution, technical development or investment.

(c) Market or supply sharing.

(d) The application, in commercial or service relations, of dissimilar conditions for equivalent services which place some competitors at a disadvantage compared to others.

(e) making the conclusion of contracts subject to the acceptance of supplementary obligations which, by their nature or according to commercial usage, have no connection with the subject-matter of such contracts.

2. Agreements, decisions and recommendations which, being prohibited under the provisions of paragraph 1, are not covered by the exemptions provided for in this Act shall be null and void.

3. The prohibition in paragraph 1 shall not apply to agreements, decisions, recommendations and practices which contribute to improving the production or marketing and distribution of goods and services or to promoting technical or economic progress, without any prior decision to that effect being required, provided that:

(a) allow consumers or users to share equally in its benefits.

(b) do not impose restrictions on the undertakings concerned which are not indispensable to the attainment of those objectives, and

(c) do not afford the participating undertakings the possibility of eliminating competition in respect of a substantial part of the products or services in question.

4. The prohibition in paragraph 1 shall not apply to agreements, decisions, collective recommendations or concerted or consciously parallel practices which comply with the provisions laid down in Community Regulations on the application of Article 81(3) of the EC Treaty to categories of agreements, decisions by associations of undertakings and concerted practices, even where the conduct in question is not capable of affecting trade between EU Member States.

5. Likewise, the Government may declare by Royal Decree the application of paragraph 3 of this Article to certain categories of conduct, following a report from the Council for the Defence of Competition and the National Competition Commission.

- Article 101 TFEU, by sharing sensitive information for the paper manufacturing market and agreeing on price increases and market sharing (European Parliament, 2008).

Article 101 (ex Article 81 TEC)

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

(a) directly or indirectly fix purchase or selling prices or other trading conditions;

(b) limit or control production, market, technical development or investment;

(c) sharing markets or sources of supply;

(d) applying dissimilar conditions to equivalent transactions with third parties, thereby placing them at a competitive disadvantage;

(e) making the conclusion of contracts subject to the acceptance by the other parties of supplementary obligations which, by their nature or according to commercial usage, have no connection with the subject-matter of the contracts.

2. Agreements or decisions prohibited by this Article shall be null and void.

3. However, the provisions of paragraph 1 may be declared inapplicable to:

- Any agreement or category of agreements between undertakings,

- Any decision or category of decisions of associations of undertakings,

- Any concerted practice, or category of concerted practices, which contributes to improving the production or distribution of products or to promoting technical or economic progress, while allowing users a fair share of the resulting benefit, and which does not:

(a) impose restrictions on the undertakings concerned which are not indispensable to the attainment of those objectives;

(b) afford such undertakings the possibility of eliminating competition in respect of a substantial part of the products in question.

As far as the applicable regulations are concerned, as we have observed in the previous articles, some of these practices were carried out within the still valid Law 16/1989 and the LDC, and both laws prohibit those agreements, decisions or collective recommendations, practices that can be considered concerted or parallel, that have as their objective or may produce negative effects, or that have the objective of imposing or restricting or distorting competition in the market.

Both laws are very similar, but in these cases the law must apply the one that is more favourable to the offender, so Law 15/2007 is, from an objective point of view, more beneficial to offenders than Law 16/1989, except for the regime applicable to the calculation of the penalties to be imposed on offenders. Therefore, the application of Law 15/2007 is more favourable.

Law 15/2007 was thus applied, as had happened in similar cases before in the Competition Chamber of the CNMC.

Some of these cases are:

- CNMC Resolution of 12 June 2014, Expte. S/0444/12 Gea;

- Resolution of the CNMC of 22 September 2014, Expte. S/0428/12 Palés)

On the other hand, the application of Article 101 of the TFEU was also carried out, due to both the characteristics and the magnitude of the situations analysed, as well as the corporations themselves that participated in these infringements, since they can generate changes in intra-Community trade. The companies concerned argued that the geographic dimension of their relevant markets was much smaller, even smaller than the national one.

One of the cases that facilitates the understanding of the concept of "trade" is the case (CNC, 2010) in which the Council defined that the concept of trade was not limited to cross-border exchanges of goods and services, but that it was much broader and in fact encompassed all types of cross-border activities and trade between member states. It can therefore be affected by variations in the national market.

It can thus be concluded that the actions that initiated the study of this market were detrimental to the trade situation between the member states, because paper can be considered as a fundamental raw material, which is transformed into cardboard products and thus also traded with foreign countries.

6) DETECTION TOOLS

In an environment of permanent economic development and high trade, operations are increasingly cross-border and complex. This generates a number of positive business practices, such as the flow of capital and investment, but also negative effects. Among these negative effects, anti-competitive practices stand out. To combat them, the CNMC has the following tools, which make it somewhat easier to detect them.

- Investigations by competition authorities:

These consist of selecting the main markets where imperfect competition is frequently practised and implementing a set of screening measures, i.e. targeting these markets and studying them in a way that allows them to obtain reliable results.

- Clemency programme:

This programme originated in 2007 and was created with the aim of facilitating the detection and dismantling of business cartels that have been established in the markets. This programme is applied in accordance with the provisions of Law 15/2007, despite the fact that competition practices are regulated in coordination by both the autonomous communities and the state itself.

This programme provides an escape route for companies that wish to terminate their participation in a cartel, and therefore encourages companies to be diligent in submitting their leniency applications, as leniency is granted only to the first company to be exempted from paying the fine. In order to facilitate the gathering of evidence, there is also provision for staggered reductions in fines for companies that subsequently wish to cooperate in a progressive manner, but each company that wishes to cooperate must provide consistent evidence that allows the cartel to be terminated.

On the other hand, the CNMC prohibits the companies that form part of these cartels, so that they cannot reach agreements with public administrations. However, this veto is controlled by the State Contracting Board.

It should be noted that the complaint does not have to come from a company, but can also come from a natural or legal person.

A very controversial case is the so-called nappy cartel, which originated in Spain, this case was the one with the highest sanction and affected companies selling

absorbent material, which fixed the prices of absorbent nappies financed by the social security, which were sold in pharmacies to patients who were not hospitalised.

- Compliance programmes:

Also defined as compliance programmes, they are a tool that allows companies themselves to detect and thus prevent their possible involvement in conduct that is not of a lawful nature, i.e. which is likely to create criminal and administrative liability.

Such conduct includes all practices contrary to antitrust rules. These types of infringements are increasingly rejected by citizens, as they have a direct impact on social welfare.

Therefore, an effective compliance programme can help the company to detect and thus avoid actions contrary to the law, so that the company's manager can act appropriately in the case in question, such as going to the CNMC or to a public body to ask for support.

7) RESULTS

Throughout this study, I have been able to observe that the anti-competitive behaviour of these companies conditioned the state and development of the paper and corrugated board market between 2008 and 2014. This anti-competitive dynamic generated various negative effects for the market, with actions such as price increases, which were agreed between the member companies, ranging from 6% to 12% per year. In this way, constant price increases were generated in the market throughout the years previously announced, these price increases can be interpreted in the following graph:

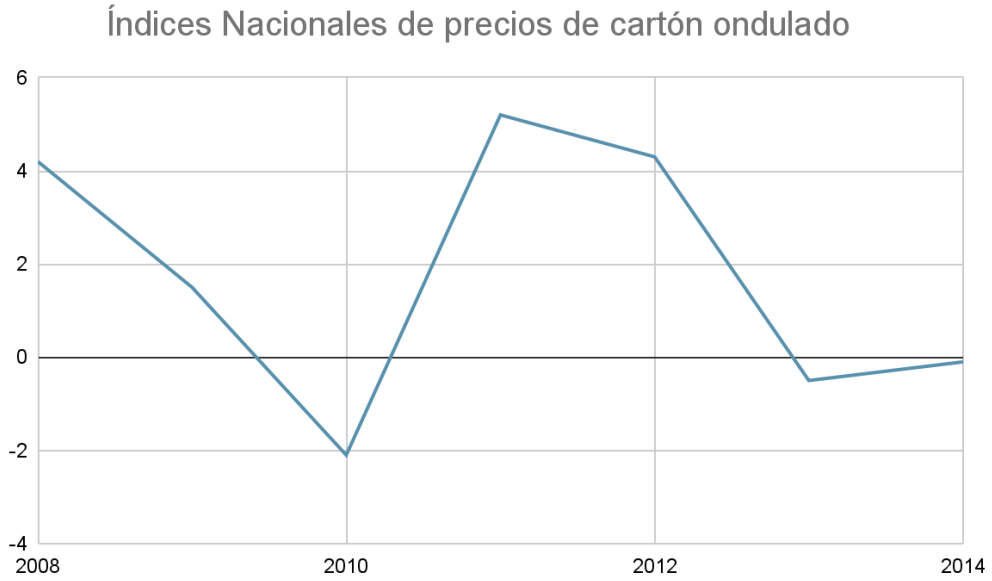

Figure 1. *Evolution of national price indices. Source: Own elaboration.*

As can be seen in the graph, during these years there were large fluctuations in the market due to various factors, which also include those external to the situations of unfair competition that I have studied, such as the financial crisis of 2008, which had a significant impact on prices in this market, significantly reducing the consumption of products and thus the demand for cardboard, which is largely used for the packaging of a large part of consumable goods. This affected the demand for products in many sectors and reduced the availability of credit, which could explain the decline in prices from 2008 to 2010. Another factor that conditioned the price variation in this sector, and which can justify to some extent the increase in cardboard prices from 2010 onwards, was the beginning of the boom in e-commerce or e-sales, which would be a positive factor for the growth in the price of products due to the increase in demand for cardboard boxes for shipments. On the other hand, we could also consider that the merger or acquisition of some companies, which could have been generated due to the anti-competitive actions of the investigated companies, during this period may also have encouraged this price increase, in view of the increased market power.

These factors mentioned above could be some of the determining factors of these fluctuations, but by themselves they would not be important enough to create such a high increase after the arrival of the financial crisis of 2008. For this reason and to support this reflection I have created the following graph, with the aim of observing the

evolution of the price index of corrugated cardboard during this same period but in this case of exports and imports.

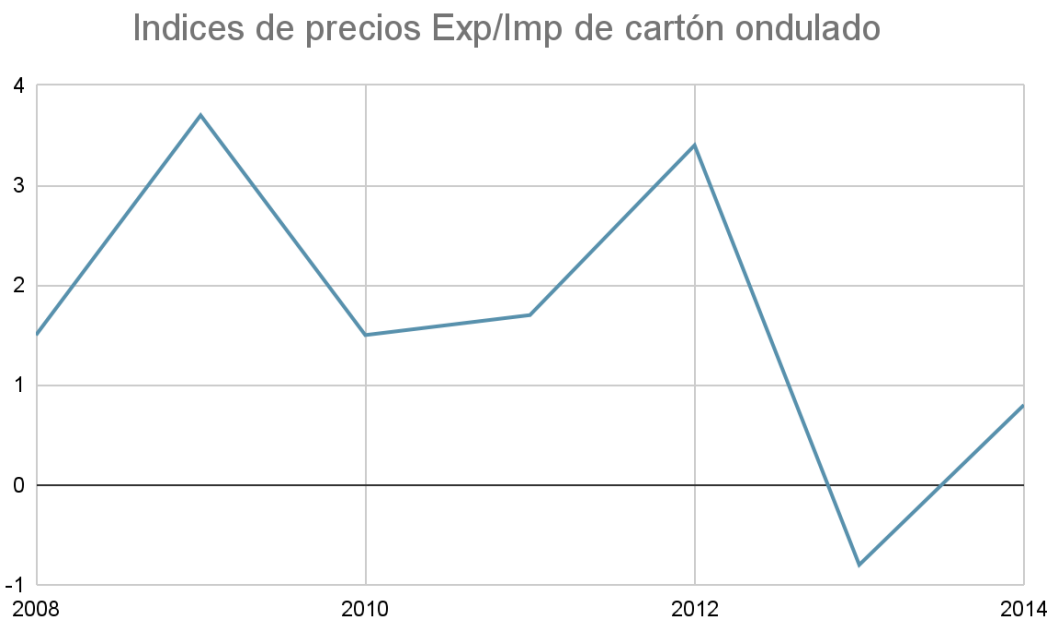

Figure 1. *Evolution of export/import price indices . Source: Own elaboration.*

As can be seen in the graph, in the case of the evolution of the price index of exports and imports of corrugated board in this period, it develops in a totally different way to the national one in the same period. Although it is true that there is also a drop in the price level due to the financial crisis, which comes later than in the national case due to the difficult situation that Spain was suffering at this time, it can be seen that the recovery of prices is more contained and of smaller dimensions than in the case of the national price levels. This result is due to the anti-competitive practices that were being carried out in the country, because if it were not for these, the evolution of prices should have been more contained even than those of the export/import indices, since Spain during this period suffered a crisis of great dimensions that pushed the economy towards a decrease and with it a recession.

Because of this and all of the above, the CNMC concluded that there was prima facie evidence that several companies had engaged in anti-competitive practices, including situations such as market sharing agreements, price fixing and foreclosure of potential competitors.

For this reason, it imposed fines of millions of dollars on several companies involved in the case and ordered an end to these anti-competitive practices as well as the implementation of a control over all the companies that had cooperated in this scheme in order to monitor their actions in the following years.

These fines affected all the companies involved, and depending on the market power they had, the amount by which they had benefited from these practices was estimated and an economic amount was awarded as a fine. These fines can be seen in the following table:

Table 3. *Fines imposed*

Empresa	*Volumen de negocios total (VT, en €) en 2014*	*Tipo sancionador (%)*	*Multa (en €)*
CARTONAJES EUROPA S.A.	15.303.000	2,55%	390.227
CARTONAJES INTERNACIONAL S.L. (CARTISA)	58.100.000	3,30%	1.917.300
CARTONAJES IZQUIERDO, S.A. (INSOCA)	29.222.000	2,75%	803.605
CARTONAJES LA PLANA S.L. (LAPLANA)	81.006.150	3,30%	2.673.203
CARTONAJES M PETIT S.A.	56.098.000	3,25%	1.823.185
CARTONAJES SANTORROMÁN S.A. (SANTORROMAN)	24.454.198	2,60%	635.809
DANIEL AGUILÓ PANISELLO S.A. (DAPSA)	125.288.040	3,10%	3.883.929
DISEÑO CONTENEDORES Y EMBALAJES S.A. (DICESA)	22.586.500	2,60%	587.249
HISPANO EMBALAJE, S.A. (HISPANO)	25.833.000	2,75%	710.408
LANTERO CARTÓN S.L.	34.138.600	3,70%	1.263.128
MICROLAN S.A.	22.338.220	2,60%	580.794
PAPELERA DEL EBRO S.A.	36.633.500	2,90%	1.062.372
PAPELES Y CARTONES DE EUROPA S.A. (EUROPAC)	199.967.687	2,70%	5.380.167
RAFAEL HINOJOSA, S.A. (HINOJOSA)	86.765.000	3,10%	2.689.715
S.A. INDUSTRIAS CELULOSA ARAGONESA (SAICA)	383.139.660	5,00%	19.156.983
SAICA PACK, S.L.	148.603.940	3,60%	5.349.742
SMURFIT KAPPA ESPAÑA S.A. (SMURFIT)	214.185.000	3,80%	8.139.030
SUMINISTROS IND. CARTÓN ENVASES S.A. (SICESA)	16.271.900	2,70%	439.341

Source: cnmc.es. Case of paper and corrugated cardboard manufacturers

Thus, all the companies listed in the table above were sanctioned by the CNMC with the respective amounts to be paid as fines for the anti-competitive actions they had carried out.

Faced with this sanction, the companies lodged an administrative appeal, which was accepted by the national court, annulling the resolution of 18 June 2014, due to the expiry of the procedure, i.e. its pre-expiry. As a result, the companies that had paid the fines imposed were reimbursed and, in turn, the surveillance imposed in the resolution of 18 June 2014 was terminated.

8) DISCUSSIONS AND CONCLUSIONS

The aim of this work is to study the case of the paper and corrugated cardboard manufacturers in order to find out about the different anti-competitive practices carried out by the companies involved, what the repercussions were on the Spanish market and whether this harmed both competitors and Spanish society as a whole.

Cases of unfair competition, abuse of dominant power or imperfect competition are unfortunately very frequent in our environment, and in a way more than we can observe, since even a group of bars in the same street may have a strategy of this kind, and with it they may reach an agreement on the prices of their products in order to share their market. There are therefore many past and present cases which give us an insight into the magnitude of this problem and help us to understand how companies function in such cases and what their ambitions are. For this reason, the National Competition Commission (CNMC) has several tools, named in the work, to constantly search for possible cases of unfair competition or any type of anti-competitive action, with the aim of eradicating these actions that harm both the market and society.

Therefore, and with the motivation to analyse this type of cases, I have been able to verify that throughout the work that the companies accused in this process practiced different types of anti-competitive actions, which are prohibited and with which they took advantage of their situation of dominant position in the market and thus carried out constant negotiations and agreements with companies in the same sector to reach understandings in terms of price agreements and geographic market sharing, in order to increase their profits and influence the market through their strategy. In this way, during all the years between 2008 and 2014, these companies generated continuous price rises which harmed both the company and its competitors, as price rises were

made which in a context of perfect competition would not have existed. This type of strategy, together with the geographic market sharing strategy, led to competitors being affected, who were left out of the market and thus reduced their level of sales, damaging their situation or were even absorbed by another company. In view of the above, it can be said that the objective of the study has been achieved, i.e. to find out whether these companies engaged in anti-competitive practices, to study them and to conclude whether they were guilty in this context.

To carry out this study I have relied on reliable sources, gathering information from the same case investigated by the CNMC, and obtaining data from official websites such as the Official State Gazette, the National Institute of Statistics, among others to obtain and interpret the data used throughout the work.

I have therefore been able to conclude that all the companies carried out anti-competitive actions, which were identified late as they were initially condemned for the acts in which they had been involved, but after the relevant appeals they were acquitted of the case, without any type of sanction due to the pre-specified nature of the acts being investigated.

Finally, although it is true that this work does not include all the situations or studies carried out on this type of competition cases, this study shows the need to speed up the study of these cases and the means of detection to achieve this, as nowadays the legal regulations by which these types of cases are evaluated are correct and fair, However, if they are not detected quickly, sanctions may not be applied to these companies and they may not have any negative repercussions, which loses effectiveness in the face of the need to create a society that rejects this type of strategy and that is fair with the actions it carries out.

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