“Why are some industries prone to endemic collusion?”

POLICY LECTURE

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It’s a great pleasure to join everyone here this morning. I am delighted to have this opportunity, to share my thoughts and raise more questions in the process. I would like to thank the organisers as well as ERSA for the generous invitation. I know that events such as these are difficult to organise but serve an extremely important role of developing competition economics and policy by offering a platform for the honest exchange of ideas between academic economists, practitioners and agency officials such as myself and my colleagues. Given the programme, I have no doubt that we will all walk away having learned something new about the economics of collusion.

I would like to begin today by pointing out that my remarks are not intended to be exhaustive but provide you with a glimpse on some outstanding questions. Of all my remarks today, I am certain that the Commission, will agree with this one additional caveat before we get started, the remarks that follow are my own, and do not necessary reflect the views of the Commission.

The focus of competition policy is on maintaining rules of competition that enable rivalry among firms to produce certain market outcomes. One such rule prohibits firms from entering into agreements not to compete with one another. The rule against collusion is the least controversial prohibition in competition law and is regarded with approval even by those generally sceptical of government interventions in markets. Nonetheless, some significant and challenging questions remain unanswered.

For example, the question on top of my mind this morning is why is that some industries have been repeatedly investigated and sanctioned for collusion by competition authorities, sometimes involving repeated offences by the same firms? Could the answer be simply that this reflects the characteristics of those industries? Over the years a pattern has emerged because the same firms are engaging in cartel activity repeatedly in different markets and even across countries. Even more telling is that there seem to be industries that attract collusion even when the identity of the firms involved differs, across different countries.

Guidance from empirical studies suggests that many cartels are in industrial intermediate inputs, such as chemicals, as well as in construction services and certain building materials.[1] For example, in the construction sector, the Commission first initiated an investigation in February 2009 regarding tenders for the construction of 2010 FIFA World Cup stadia. The second investigation was initiated in September 2009 and covered all big and small tenders for construction projects. During the investigation of these projects the Commission received approximately 150 marker applications (intention to apply for leniency) and 65 CLP applications which implicated the majority of medium and large firms in bid rigging conduct.

[1] Antonielli and Mariniello (2004) and Combe and Monnier (2012) on a sample of cartels investigated in Europe. Using international cases, Levenstein and Suslow (2011) find a similar list, noting "Forty percent are in chemicals, especially food additives. Another quarter are in a variety of other manufacturing industries, with multiple cartel convictions in steel, carbon and graphite products, plastics, and paper industries."

This indicated how widespread bid rigging was in the construction sector. The Commission's investigation followed similar investigations into bidding rigging in the construction sector specifically in the Netherlands and the United Kingdom.

Perhaps another possibility is that the industries in which we observe endemic collusion are simply the industries in which it is easiest to *detect* cartels. It could be that cartels are everywhere and these are just the least successful. But why do cartels in such industries seem to occur so frequently? Why then despite the access to increasing public evidence on this as well as their own private information are competition authorities unable to deter repeated violations, by companies and within industries of which they have reason to be suspicious?

Economic theory has identified several factors which make it easier to engage in collusion. Facilitating practices address the challenges of reaching an agreement and enforcing the agreement (in particular, deterring cheating through the prospect that defection will be detected and punished quickly). The use of facilitating practices provides a basis for inferring the existence of collusion. This inference makes sense when there is no other explanation for the practice or when other explanations can be shown to be implausible in a particular case. One such factor is information exchange. Information exchange could facilitate collusion by improving accuracy in observing rival behaviour, improving information about future intentions as well as diminishing time lags within which cheating can be more accurately detected and punished.

There are also several factors relating to market structure that affect the incentive and ability of collusive firms to sustain collusive outcomes. An assessment of the degree to which structural factors are conducive to successful collusion can sharpen the accuracy of inferences on the ultimate question of whether firms are engaging in collusive conduct. These factors could also help explain repeated cases of collusion. Among other factors, the literature has identified limited innovation (so that the market is rather stable), homogeneity of products, multi-market interaction as well as structural links between competitors. Greater similarity on any dimension also supports collusion. For example, firms with symmetric production costs will more readily be able to reach an agreement on collusion and none will gain disproportionately from cheating. Furthermore, extensive social contacts and more similar backgrounds of key decision-makers or managers may make reaching an agreement easier. Similar background could include educational and social backgrounds, longevity in the industry, and participation in trade association activities.

Repeated collusion also raises the question of why deterrence and prosecution of cartels does not seem to result in effective deterrence in these industries. It could simply be that the rewards from collusion are so high, given the industry characteristics, that firms are drawn into illegal activity, to make the profit levels their shareholders expect.

However, there could also be hysteresis effects: collusion becomes a way of life for the firms involved, so that once cartels do form they become more likely to form again, even after competition enforcement actions. Take for instance a desire to have a ‘quite life’ on the part of managers. Managerial slack may provide a motive of managers forming a cartel that may not show up in the form of *profitability but x-inefficiencies*. This could reflect a bad business culture in serially offending firms, or perhaps even learning how to use more sophisticated methods of collusion, as a result of the earlier cartel or even the investigation of that cartel.

Global cartels

Globalisation has affected the world economy and in particular competition policy. Some of the evidence of this trend can been seen in the number of competition law cases which have an international dimension perhaps partly as a consequence of increasing international trade and the growth of global supply chains.

In South Africa, this year alone we have had more than 80 initiations of investigations (and about 160 initiations in total of investigations from August 2014 to date) into a global cartel which colluded in the market for the manufacture and supply of automotive components supplied to original equipment manufacturers (OEMs) such as Toyota Motor Corporation, Nissan Motor Company, Isuzu Motor Limited, Honda Motor Corporation, Suzuki Motor Corporation, General Motors Corporation, Hyundai Motor Company, Yamaha Motor Corporation, Volvo Car Corporation, Mazda Motor Corporation, Mitsubishi Motor Corporations and Ford Motor Corporation.

The investigation arises from information received by the Commission that automotive component manufacturers colluded when bidding for tenders to supply automotive components to the OEMs. The Commission's investigation into this pervasive collusive conduct joins similar investigations launched in other jurisdictions internationally, including the US and the EU.

In May this year, the Competition Commissioner, Tembinkosi Bonakele, initiated an investigation against BNP Paribas, Citigroup, Barclays Bank, JP Morgan, Investec Ltd, and Standard Chartered Bank, among others. The Respondents who are traders in foreign currencies have allegedly been fixing prices in relation to bids, offers and bid-offer spreads in respect of spot, futures and forwards currency trades.

The alleged cartel named itself "ZAR domination" was carried out through electronic messaging platforms used for currency trading. The extent of its pride is captured in other jurisdictions with names such the Bandits' Club, the Mafia and the Cartel. The Commission's investigation follows similar investigations launched by other competition authorities in other jurisdictions, including the US, UK, Korea, New Zealand, Switzerland and Brazil.

Bread, maize meal and flour cartels

The legacy of apartheid in South Africa, largely due to extensive regulation and state support, resulted in an economy that was highly concentrated. Protectionist policies were aimed primarily at encouraging industrialization. Post-apartheid, the South African government took significant steps to liberalize many of the formerly price regulated markets. Industry restructuring led to the break-up of regulated cartels, but what lagged behind was the strict enforcement of competition policy to ensure that competition was being preserved. It turns out that liberalization inadvertently, by increasing competition in formally price regulated markets, increased the incentives for firms to participate in cartels. Hence, many formerly price regulated industries turned to collusion after liberalisation.

One example of such an industry is the grain industry in South Africa. For instance, the wheat value chain was extensively regulated by the state from 1937 to 1996. The Wheat Board was sole buyer and seller of wheat at predetermined prices. With liberalisation, the expectation was that millers would compete. Competition it was hoped would result in low prices of flour and bread. But instead of competing, the millers simply replaced state regulation with private regulation.

When Premier Foods was granted corporate leniency in the bread cartel case in March 2007, it indicated that the cartel extended to the milling industry. Premier Foods' leniency extended to its involvement in the milling cartels (milled white maize and milled flour products).[2] The bread, flour and maize meal cartels involved a core group of firms, namely Tiger Brands, Pioneer Foods, Premier, Foodcorp. The cartels fixed the price of flour, bread and maize meal and allocated customers in flour and bread from 1999 to 2007.

In the flour cartel example, cartel meetings were held at regional and national levels. Cartel meetings took place at different locations in the different provinces. For example, in some provinces, the meetings were better known as "church meetings". Indeed, the price fixing meetings were held in church halls and were, quite astonishingly, often preceded by a prayer.

Cartels in flour have also been discovered elsewhere around the world. In Europe, the Dutch, Belgian and German competition authorities have all recently prosecuted flour cartels. For example, on 22 December 2010, the Netherlands Competition Authority

[2] Media Release, 14 February 2007, Competition commission prosecutes bread cartel. Available at: http://www.compcom.co.za/2007-media-releases/

concluded that 15 flour milling firms agreed to share the market in order to limit competition and even went as far as to buy out and shut down rivals that would not join the cartel.

Cement cartel

In the cement industry, for many years in South Africa dating back to the 1940s, cement producers were granted an exemption, in terms of legislation then in force, to conduct the manufacture and distribution of cement under the aegis of a lawful cartel. A set of institutional arrangements was put in place to manage the activities of the lawful cartel.[3]

The Competition Board, the predecessor to the Commission, withdrew the exemption in 1995. In view of the fact that the cement producers had operated under the auspices of a lawful cartel for decades, they were afforded a grace period until the end of September 1996 to terminate the lawful cartel arrangements.

In anticipation of this termination, in May 1995, there were various multilateral discussions among cement producers that took place. These discussions culminated in an agreement among the cartel members to allocate market shares ("the 1995 agreement"). Broadly, in 1995 the respondents agreed to target market shares as follows:

a. PPC was allocated a market share of 42 – 43%;
b. Afrisam was allocated a market share of 35 – 36%; and
c. Lafarge was allocated a market share of 22 – 23%.

At this stage NPC was still jointly owned by PPC, Afrisam and Lafarge. The 1995 agreement included NPC's market share within each of the primary producers' allocated share. NPC's market share was estimated to be about 11% – 12%, resulting in PPC's, Afrisam's and Lafarge's allocated share's being approximately 39%, 31% and 18% respectively.

[3] These institutional arrangements included the Cement Distributors (South Africa) (Pty) Ltd ("CDSA"), Cape Sales (Pty) Ltd ("Cape Sales") and the South African Cement Producers Association ("SACPA"). As part of these institutional arrangements, NPC, Slagment and Ash Resources (Pty) Ltd were jointly owned by PPC, AfriSam and Lafarge.

On 02 June 2008, the Commission initiated an investigation against the cement producers alleging that PPC, Lafarge, Afrisam and NPC-Cimpor had entered into restrictive horizontal agreements. In pursuance of its investigation the Commission raided the premises of the four cement producers on 24 June 2009. Subsequently, PPC applied for leniency and confirmed the existence of a cartel among the four cement producers.

However, this was not the first raid the Commission has instituted on cement producers. As early as 1999, the Commission dawn raided cement producers following a suspicion of cartel activity in the market. This operation was successfully challenged by PPC on legal grounds, which resulted in the Commission having to return all seized documents.

On 01 November 2011, Afrisam admitted that it had entered into agreements and arrangements with PPC, Lafarge and NPC to divide markets and indirectly fix the price of cement.[4] Lafarge has also admitted that it entered into agreements and arrangements with PPC and Afrisam that extended to NPC to divide the market through allocation of market shares and indirectly fix the price of cement.[5] The Commission is pursuing its case against NPC-Cimpor.

Table 1 below briefly highlights occasions where both Holcim and Lafarge were involved in cartel activity in different countries.

Table 1: Examples of cement cartels involving both Holcim and Lafarge

I.	European Union [1983- 1993 (grey cement); 1982-1988 (white cement)]
	In 1994, the European Commission handed down a decision to fine several cement manufacturers, including Holcim (then "Holderbank Financière Glaris") and Lafarge. The fines were imposed in

[4] Tribunal Consent Order, CC vs Lafarge Ltd, Case No.: 93/CR/Nov11.

[5] Tribunal Consent Order, CC vs Lafarge Ltd, Case No.: 23/CR/Mar12.

relation to, two cartels, relating to grey and white cement respectively. Both cartels related to a network of arrangements designed to establish, maintain and support national market partitioning. This was done through market and customer allocation, information exchange and other enforcement practices such as collective boycotting.[6]

II. Germany [1992 – 1998]

In 2003, the Federal Cartel Office (Bundeskartellamt) found that during the 1990s, a number of producers of cement had entered into market sharing agreements in the Germany, the United Kingdom, France and Benelux cement markets between 1992 and 1998, and imposed fines on several companies. With particular reference to Germany, it was found that a large number of German cement producers divided up the German market by a quota system at least since the early 1990s. These companies included Holcim and Lafarge.[7]

III. Romania [2000 – 2004]

On 26 May 2005, the Romanian Competition Council issued a decision imposing a fine on the cement manufacturers, Lafarge, Holcim and Carpatcement (the local subsidiary of Germany's Heidelberg Group) for participating in a price-fixing agreement between 2000 and 2004.[8]

IV. Brazil [2002-2006]

In 2006 the Secretariat of Economic Law of the Ministry of Justice ("SDE") initiated a formal administrative investigation against major Brazilian cement companies, including Holcim (Brasil) S.A and Lafarge Brasil S.A. Evidence suggested that that the cement manufacturers were fixing prices and cement quantity, dividing the regional cement and concrete markets in Brazil and concertedly allocating clients amongst others. The cartel had operated for at least the period between 2002 and 2006. On 8 May 2014, six companies, six individuals and three industry associations were fined. Further, divestment of plants was ordered among other determinations.

V. India [various episodes between 1990s and 2006]

In 2012, Competition Commission of India ("CCI") handed down an order to impose fines on 11 cement manufacturers in India. The CCI concluded that the 11 cement manufacturers, including Holcim and Lafarge, and their association- CMA- were engaged in restricting supply and fixing prices. The matter is currently under appeal. It is noteworthy that this is one of many similar offences in India involving cement manufacturers, dating back to the 1990s and all these cases have not yet been put to finality.

Table 2 below shows countries in which either Holcim or Lafarge were found to have contravened competition laws for the period 2004-2014. The list excludes ongoing investigations, it demonstrates the propensity of the merging parties to collude.

Table 2: Countries in which either Holcim or Lafarge has been convicted of collusion

Country	Respondent/(s)	Decision	Description

[6] Kluwer Competition Law Database (http://www.kluwercompetitionlaw.com, Subscription required).
[7] Merging Parties' Response to Competition Commission's supplementary request for discovery, File 1, item 1
[8] http://uk.practicallaw.com/0-201-3637?service=crossborder .

EU (Germany, France, UK, Beneleux)[9]	Lafarge and others	2002	Information Exchange; concerted price increases
Italy	Holcim and others	2004	Cartel activity
Australia	Holcim and others	2008	Concerted exclusionary practices
Poland	Lafarge and others	2009	Price fixing; market sharing
Honduras	Lafarge and others	2010	Price fixing; market sharing
Colombia	Holcim and others	2010	Price coordination; customer allocation
Argentina	Holcim and others	2013	Price fixing; market sharing; information exchange
Belgium	Holcim and others	2013	Concerted actions
United Kingdom	Holcim and others	2014	Collusion, exclusionary practices

Problem of detection

That anticompetitive outcomes maybe observed simply from mutual awareness of a common situation poses a problem of identification, notably how to differentiate coordination from competitive conduct or the various cases in between. All that economic theory offers is a set of conditions which hinder or facilitate coordination. More generally, the problem of multiple equilibria in game theory includes both collusive and non-collusive equilibria, not even a market whose features favour for example, tacit coordination can overrule the possibility of competition as firms may choose (an rationally) to compete. This means that competition authorities find it difficult to distinguish tacit coordination from competition or the various cases in between.

Where a competition authority observes that the market is oligopolistic. It cannot initially differentiate what form of market interaction is linking the actions of the firms. For instance, firms may interact in the market in different ways, including effective competition, tacit coordination or explicit coordination. The illegality of overt coordination encourages firms to hide evidence of coordination.

To illustrate the problem of detection in the cement industry, consider the fact that in 2000, the Commission issued summons (later withdrawn in July 2000) and raided PPC and

[9] Case No COMP/E-1/37.152 – Plasterboard, Decision 2005/471/EC (summarised in OJ 2005 L 166, p. 8).

Slagment (a firm involved in the processing of blast furnace slag which is used as an extender in some cements) in August 2000. Slagment was owned in equal shares by PPC and two other cement producers, known as Alpha (later known as Holcim and now known as Afrisam) and Lafarge. PPC managed and controlled Slagment.

The raid followed a complaint received by the Commission from a firm called Ashcor early in the year 2000 alleging that PPC and Slagment were abusing their dominant position. As the months went by, the Commission became suspicious that the cement producers were also involved in collusive practices, among others. These suspicions arose from information received from the then managing director of Slagment who told the Commission of certain alleged practices involving the three main cement producers (Apha, Lafarge and PPC). The information suggested that there was some manipulation of Slagment which the cement producers owned and that documents evidencing these allegations were to be found at Slagment.

PPC and Slagment challenged the raid successfully resulting in the return of the raided documents. Because of the successful challenge, it would take the Commission another 8 years to investigate concerns of coordination.

In 2008, the Commission conducted a scoping study which led to the initiation of an investigation against the cement producers alleging that PPC, Lafarge, Afrisam and NPC-Cimpor were involved in a cartel. Shortly after the initiation, PPC applied for leniency and confirmed the existence of a cartel among the four cement producers.

Without the leniency application there is no telling on whether or when the explicit cartel would have been discovered.

Conclusion

Against this backdrop, what should competition authorities do about serial offenders? The competition problems arising in some sectors might require a more targeted approach than that commonly used by competition agencies. One relatively easy option is to monitor some sectors or even some companies closely, to enable quicker detection of cartels.

Thank you for your time. I am happy to take questions.