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CARTELS IN PUBLIC PROCUREMENT

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ABSTRACT

Public procurement markets differ from all others because quantities do not adjust with prices but are fixed by the bidding authority. As a result, there is a high incentive for organizing cartels (where the price elasticity of demand is zero below the base price) that are quite stable because there are no lasting benefits for cheaters. In such circumstances, leniency programs are unlikely to help discovering cartels. Since all public procurement cartels operate through some form of bid rotation, public procurement officials have all the information necessary to discover them (although they have to collect evidence on a number of bids), contrary to what happens in normal markets where customers are not aware of the existence of a cartel. However, in order to promote reporting, the structure of incentives has to change. For example, the money saved from a cartel should at least, in part, remain with the administration that helped discover it and the reporting official should reap a career benefit. In any case, competition authorities should create a channel of communication with public purchasers so that the public purchasers would know that informing the competition authority on any suspicion at bid rigging is easy and does not require them to provide full proof.

JEL: H57; K21; K42; L41

I. INTRODUCTION

Cartels can be defined as any secret agreement among potential rivals not to compete with each other in one form or another. The first characteristic of a cartel is that the agreement among competitors needs to be secret. A simple anticompetitive outcome is not sufficient. The second characteristic is that the object of the agreement has to significantly weaken the rivalry among competitors. Cartels are the most severe violation of antitrust laws.

There are many possible types of cartels (for example, price-fixing agreements, customer allocation agreements, territorial allocation agreements, and output restriction agreements), but the general feature is that they reduce output and raise prices. Only some (for example, bid-rigging agreements

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in the case of public procurement) increase prices without reducing quantities.[1]

Cartels may not eliminate all competition from a market. For example, competitors may agree to eliminate competition only for certain customers, in certain geographic parts of the market or with respect to some characteristics of the exchange. Cartel members may set a common level of prices but still compete on services or on quality. Cartel members may also agree on prices for some customers but compete on prices for others.

Some or all of the monopoly profits originating from the cartel may be "competed away" in these restricted forms of competition. Also, in such cases, cartels are harmful. Indeed, the negative impact of a cartel is not limited to the high prices and/or the lower quantities that it determines. By suppressing the natural rivalry among firms, a cartel reduces the incentive to innovate or to differentiate production that firms would otherwise have, which negatively affects consumer welfare in the long run. As a result, equilibrium in a cartelized market, even if all supranormal profits are competed away, may well be very different from a corresponding competitive equilibrium reached without the cartel.[2] The discipline provided by well-enforced competition laws is, therefore, very important for long-run growth and competitiveness that ultimately leads to higher standards of living.

In general, cartels are inherently unstable since cartel members have a strong incentive to cheat on the agreed prices and quantities—for example, by selling below the agreed price or outside their assigned territory. As a result, in order for a cartel to be successful, it may have to make a substantial effort to check members in order to make sure that they don't cheat. Only for bid rigging, the incentive to cheat is very much reduced and the transparency of procurement procedures makes the policing of cartel members unnecessary.

Cartels are, in general, very common in markets where the product is homogenous and the number of industry participants is limited. Indeed, the evidence shows that in cartelized industries, the number of players almost never is higher than ten and very often is lower than five, substantially confirming Louis Phlips' conclusion that in explicit collusion, "four are few and six are many."[3]

[1] In this article, I use a narrow definition of bid rigging as relating only to public procurement. Indeed, bid rigging may also take place in the private market, for example when big firms organize tenders for major works, but the absence of strict legal rules for disciplining private auctions make the bid-rigging cartels in private markets much more similar to normal cartels.

[2] Sometimes, the cozy nature of an industry may lead to cartel-type outcomes even without a formal cartel and even if the cartel has been dismantled. *See, e.g.*, Kai Hushelrath, Nina Leheyda & Patrick Beschorner, *Assessing the Effects of a Road-surfacing Cartel in Switzerland*, 6 J. COMPETITION L. & ECON. 335 (2010).

[3] *See* LOUIS PHLIPS, COMPETITION POLICY: A GAME THEORETIC PERSPECTIVE 25 (Cambridge Univ. Press 1995).

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The only exception is public procurement. Both in the Netherlands and in the United Kingdom, a construction cartel that lasted for years was recently discovered with around 100 members, a potentially highly unstable outcome according to Phlips, but a highly stable one according to recorded experience. The reason is that public procurement cartels tend to be much more stable; as a result, they may have a much larger membership than in cartels in private markets.

In any case, cartels are very difficult to detect. Their membership is usually industry wide and customers are seldom in the position to detect the existence of a cartel since they do not have a reference competitive price to which to compare the cartel price. As a result, cartels can only be discovered by the authorities in charge of antitrust enforcement. Not only does the level of the fine have to be high enough to deter the formation of cartels[4], but antitrust enforcers have to be helped in their ability to detect cartels by various means and instruments, the most effective one being the existence of a leniency program.

Leniency programs are meant to provide an incentive for a cartel member to cooperate with antitrust enforcers and inform them, in detail, about the operation of a cartel (in such a way that other cartel members could be indicted) in exchange for immunity or leniency. Leniency programs have been adopted by all OECD countries and have been very successful in discovering secret cartels.

Collusion in public procurement, however, seems not to have been much affected by leniency programs. This is rather unfortunate because public procurement is an area where cartels are probably quite common and successful, as the U.K. and Dutch examples show. The discovery of bid-rigging cartels requires other tools and most importantly, the cooperation of the bidding bodies.

Part II of the article will address the problem of detection of cartels. Part III will discuss their inherent instability and the reasons why public procurement cartels tend to be more stable. Part IV will show how leniency programs operate and provide some reasons why they have not been as successful in public procurement markets. Finally, Part V will suggest some actions that will be needed in order to fight cartels more effectively in public procurement.

II. SECRET CARTEL AND DETECTION

Price-fixing is a term generically applied to a wide variety of agreements by competitors that have a direct effect on prices. The most common form is

[4] *See* Joseph Harrington, *Comment on Antitrust Sanctions*, 6 COMPETITION POL'Y INT'L 41 (2010); Alberto Heimler & Kirti Mehta, *Violations of Antitrust Provisions: The Optimal Level of Fines for Achieving Deterrence*, 35 WORLD COMPETITION 103 (Mar. 2012); Cento Veljanoski, *Deterrence, Recidivism and European Cartel Fines*, 7 J. COMPETITION L. & ECON. 871 (2011).

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an agreement on the price or prices to be charged to some or all of their customers. Since market conditions and costs frequently change, price fixing requires frequent contacts—either in person or through some form of digital communication—between competitors. This is particularly necessary to assign to each industry participant the quantities allowed to be produced.

In addition to full agreements on which price to charge, price-fixing agreements can also consist of partial agreements on the use of a standard formula according to which prices will be computed; maintaining a fixed ratio with the prices of some competing products; eliminating price discounts or establishing uniform discounts; extending common credit terms to customers; adhering to published prices; agreeing not to advertise; and more. Although these agreements do not completely eliminate price competition, they still reduce rivalry between competitors, sometimes substantially. The interesting feature of these "partial" price-fixing agreements is that the agreement is executed once and does not require any further contact between cartel members for it to be implemented or renewed. Also, the agreement does not need to be formalized in any way. As a result, proving such agreements may be very difficult.[5]

This is also the case in agreements to allocate customers or territories. They are a one-time agreement and do not need to be formalized. Market-division agreements may have a greater impact on competition than price-fixing. The single remaining market occupant is freed from competition with respect to prices, service, quality, and innovation. Market-allocation agreements eliminate the need to thoroughly police the pricing practices of the other parties of the agreement and the need for producers with different costs to agree on appropriate prices. Thus, market allocation agreements may eliminate some of the pressure that frequently causes price-fixing agreements to break down. As a result, market allocation agreements may be much more stable.

All of these cartel-type agreements are difficult to detect because the customers that are damaged by the cartel do not have the necessary information to prove its existence nor any way to escape from the cartel. As for fellow cartel members, they are all either quite happy to be part of the cartel, or they cheat on the cartel agreement or decide not to participate. Unhappy cartel members do not have to denounce the cartel for it to stop functioning. To the contrary, if they decide to compete against the cartel (that is, cheat), they still benefit from the high prices of the cartel.

In order for a full price-fixing cartel to be successful, it must identify an allocation system for quantities to be produced among members and make sure that nobody cheats. The cartel is likely to reveal its existence in dealing with each of these factors.

[5] *See, e.g.*, Joseph Harrington, *Posted Pricing as a Plus Factor*, 7 J. COMPETITION L. & ECON. 1 (2011).

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This is also true for bid-rigging agreements. They are meant to allocate between potential bidders and government tenders. They are complex agreements requiring potential bidders to communicate frequently among themselves in order to identify the most profitable course of action. Bid-rigging agreements generally fall into the following categories:

> *Bid suppression.* One or more competitors agree to refrain from tendering or to withdraw a previously submitted tender so that another company can win the tender. The parties to the agreement may administratively or judicially challenge the tenders of companies that are not party to the agreement or otherwise seek to prevent them from tendering, for example, by refusing to supply materials or quotes for subcontracts.
>
> *Complementary bidding.* The competing companies agree among themselves who should win a tender, and then agree that the others will submit artificially high bids to create the appearance of vigorous competition. Or, the losing companies may submit competitive prices, but along with other unacceptable terms.
>
> *Bid rotation.* The competitors take turns being the winning tender, with the others submitting high bids. The companies agreeing will generally try to equalize the tenders won by each over time. A strict pattern of rotation is often a clue that collusion is present.[6]

Bid-rigging agreements are difficult to detect with evidence of a single bid because the rig organizers simulate an artificial environment that looks competitive. Furthermore, to be successful, bid-rigging agreements have to be industry wide, because it is difficult, if not impossible, in a bidding procedure to exclude anyone.[7] However, contrary to other cartels, since bid-rigging agreements imply bid rotation, public administration can find evidence to prove the existence of the agreement. However, this requires a substantial effort since data need to be collected across bids.

The public procurement procedure is not designed to discover bid rigging. Since it is an administrative procedure, it cannot be interrupted just because the bid organizers suspect collusion. The evidence needs to be less solid for the bid organizer just to denounce the rig. Nonetheless, it is very difficult to occur because (as it will be argued later in Part V) bid organizers lack the incentive to fight a cartel.

III. CARTEL INSTABILITY

Cartels are inherently unstable. Generally, each member is capable of producing and selling profitably more than the amount allowed, because a cartel operates by raising price and restricting output. Any member can increase

[6] *See* A FRAMEWORK FOR THE DESIGN AND IMPLEMENTATION OF COMPETITION LAW AND POLICY 23 (R. Shyam Khemani ed., OECD & World Bank 1998).

[7] In the Italian bid rigging case on food vouchers, because the bid was on the best offer, not on the minimum price, cartel members were able to exclude one potential participant by calculating its reserve price. Pellegrini-Consip, 2002, I463, *available at* http://www.agcm.it/concorrenza/intese-e abusi/open/41256297003874BD/DE5F99B17ABB310DC1256A8F00293D48.html.

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its profits by producing more and selling it for less than the agreed price. But if all members do this and do not respect the agreement, the cartel will break apart.

This result can be depicted in a prisoner's dilemma game, where the profits of the players depend on whether or not they respect the cartel agreement.

What needs to be pointed out is that the aim of the cartel is to maximize joint profits, which implies to artificially create a monopoly. The identification of the monopoly quantities and the assignment of a share of these quantities to each player is what the cartel aims to achieve. Defection by individual players implies selling higher quantities than those assigned at slightly lower prices than the monopoly prices and achieving lower overall profits. The game, as depicted in Table 1, shows an unsustainable cartel. However, the instability depends on the degree of transparency of the market. The less likely it is for fellow cartel members to detect the cheating, the more it will take for the cartel to dissolve. In any case, once it becomes clear that recorded reductions in sales (and profits) depend on other cartel members cheating, all of them will cheat and the non-cooperative solution will be stable.

Since the cartel's collective interest is to ensure that no member cheats by lowering its price (or by offering secret discounts, raising the quality of the product supplied, or paying delivery or similar costs), cartels take steps to prevent, detect, and punish. Some of the best evidence of a cartel agreement can be found from such policing. For example, cartel members may communicate with each other about suspected cheating, they may selectively lower prices in the cheater's area, or they may threaten the cheater. The larger the number of firms to be monitored, the more extensive the system of policing and the easier it becomes to discover a cartel.

Since cartels are secret, there is no evidence on how many participating firms existing cartels have on average. The only data available are about discovered cartels. If the hypothesis that "the more unstable the cartel, the more likely it will be discovered" is correct, then the number of firms of

Table 1. Profits of each firm and total profits

		Strategy for firm 2	
		Cooperate	Defect
Strategy for firm 1	Cooperate	EUR 1.8, EUR 1.8 (Tot 3.6)	EUR 1.35 EUR 2.025 (Tot 3.375)
	Defect	EUR 2.025 EUR 1.35 (Tot 3.375)	EUR 1.6, EUR 1.6 (Tot 3.2)

Source: LYNNE PEPALL, DAN RICHARDS & GEORGE NORMAN, INDUSTRIAL ORGANIZATION: CONTEMPORARY THEORY AND EMPIRICAL APPLICATIONS (Wiley & Sons 2008).

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discovered cartels tends to be larger than that of the universe. Still, looking at the 62 cartels discovered by the European Commission (EC) from 1998 through 2010, only 9 had a number of firms above 10 and the highest frequency was with 5 (9 times) and 6 firms (12 times), as Figure 1 shows. Even for discovered cartels, the average number of firms tends to be small.

Contrary to what happens in normal markets, bid-rigging cartels are much more stable. While in normal markets, quantities and prices are found simultaneously, in bidding markets, quantities are set by the organizer of the bid and the bidding is just used to find the lowest price associated with those quantities. Bid riggers know that by reducing prices (with respect of the agreed ones), they do not achieve any increase in the quantities sold. Rather, they just increase their profit at the expense of competitors and, most importantly, only for one bid. Once there is defection for one bid, the cheater knows (because of the transparency rules in public procurement) that he will be discovered and competition will prevail for all future bids. As a result of these characteristics, partly structural and partly rule-based, the incentive to cheat in bid rigging is much less pronounced than in normal markets (where cheating can be kept secret, at least for some time).

There is a further difference in bid-rigging cartels that is favorable for detection. To circumvent the rules for public procurement that require competing bidders for each bid, bid riggers have to organize their bids so that each time there is a number of firms (artificially) competing. The bidding authority may, therefore, notice some suspected pattern across different bid procedures. Contrary to normal cartels where the buyer is unaware of the

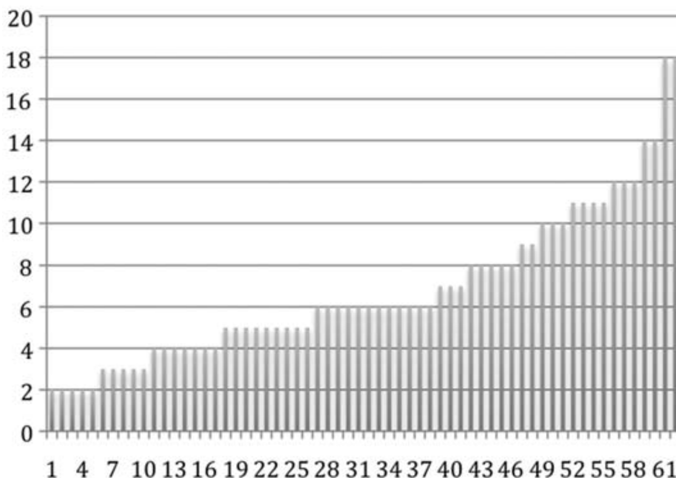

Figure 1. Number of firms in a cartel (EC discovered cartels, 1998-2010)
Sources: European Commission, Annual Reports (various years).

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cartel because all of the firms charge the same price, in bid rigging, buyers may notice some suspected irregularity across different bids.

Only a few of the cartels investigated by the EC originated from bid rigging. The bitumen cartels in the Netherlands, where 14 firms were involved, and in Spain, where there were five participating firms, both cartels were investigated through reporting of the same leniency applicant, BP. BP discovered the cartel in the course of a merger notification process. The most important reason why bid-rigging cartels are seldom investigated by the EC is that the members of a bid-rigging cartel are generally firms that are all localized in the jurisdiction where the bidding takes place. Moreover, the effect of the cartel is mainly domestic so that the firms are subject to the jurisdiction of the domestic antitrust authority.

Recently, both the U.K. Office of Fair Trading (OFT) and the Dutch Nederlandse Mededingingsatoriteit (NMA) have discovered a major bid-rigging cartel in the construction industry. In both jurisdictions, the number of firms in the cartel was around 100 (94 in the United Kingdom and 103 in the Netherlands), and the cartel had lasted for years. In both jurisdictions, the cartel had been discovered in a different way than in the case of normal cartels, where a leniency applicant is the most frequent source of information. In the Netherlands, the case originated from a television news program that revealed the existence of secret financial accounts at a major construction company. This led to the discovery of a network of anticompetitive agreements among construction firms that for years illegally divided up public procurement bids among themselves.[8] In the United Kingdom, it was the bidding organizers that noticed the rig.

The interesting characteristic of these bid-rigging cartels in construction is that the participating firms operated both in normal and in bidding markets. While they colluded only in the bidding segment of the market, they fully competed elsewhere. The same happened in Italy, where the antitrust authority discovered a cartel in the market for the supply of meal vouchers to the public administration.[9] The same firms acted independently in the rest of the economy and competed there. This is very simply the result of the very different degree of stability cartels enjoy in normal and in bidding markets.

IV. LENIENCY PROGRAMS

The difficulties enforcers faced in discovering cartels led them to look for new ways for getting information on their existence. In particular, it was felt

[8] *See* Construction Unit, Netherlands Competition Authority, http://www.nma.nl/en/competition/more_industries/construction_unit/default.aspx.

[9] *See* Press Release, Autorità Garante della Concorrenza e del Mercato, Luncheon Vouchers: for Civil Service Employees the Competition Authority has Handed Down Fines of over Euro 34 Million to the Companies Awarded the Consip Tender for Interference with Competition (June 13, 2002), http://www.agcm.it/en/newsroom/press-releases/1468-pellegriniconsip.html.

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that only through the cooperation of conspirators would enforcers get the information needed. The introduction of "leniency programs," which provide incentives for cartel participants to cooperate with enforcement authorities in exchange for leniency in sanctions, was an important step in strengthening competition law enforcement in this area. The special feature of leniency programs is that they are public statements where enforcers publicly constrain themselves to grant immunity from sanctions if certain conditions are met. In order for these programs to be effective, they have to allow full automatic immunity from sanctions only to the first firm that reports on a cartel, subject to the requirement that the firm applying for leniency reveals all it knows. Otherwise, if there is a risk that enforcers would deny immunity and prosecute the cartel nonetheless, nobody would provide evidence.

While leniency programs provide full immunity for the first firm that reports a cartel to a competition authority, they also allow lenient treatment for firms that decide to cooperate once a procedure has been already opened. In such cases, however, the reduction in fines is only partial in order not to weaken the incentive of firms to come forward in situations where the cartel is still unknown.

According to the experience of the most successful jurisdictions with leniency programs, like the United States and the European Union, there are a number of characteristics that well designed leniency programs should have. A preliminary requirement is for the authority to be able to impose fines that are sufficiently deterrent. Otherwise, the incentive to cooperate disappears. Furthermore, enforcers should be empowered to grant immunity against clear evidence of cartel conduct. Indeed, the minimum threshold of evidence needed for granting immunity is a crucial element of the program since a threshold that is too low generates applications of poor quality.

There has been a learning process in the design of leniency programs. For example, the European Union, following the lead of the United States, adopted such a leniency program in 1996.[10] The EC's initial Leniency Notice was not as successful as expected and was replaced by a new one in 2002.[11] The main change was that once a firm was admitted to the program, immunity became automatic. Subsequently, the EC and all of the EC member states adopted a model leniency program developed within the European Competition Network (a network linking all competition authorities in the Community).[12] As a result, the Commission program was again

[10] Commission Notice on the Non-imposition or Reduction of Fines in Cartel Cases, 1996 O.J. (C 207) 4.

[11] Commission Notice on Immunity from Fines and Reduction of Fines in Cartel Cases, 2002 O.J. (C 45) 3.

[12] European Commission, Competition Cartels, Legislation – Leniency, http://ec.europa.eu/comm/competition/cartels/legislation/leniency_legislation.html.

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amended in 2006, mainly to clarify the type and quality of information to be provided by leniency applicants.[13]

The leniency program of the Commission has been highly successful (see Table 2). As shown in the table, the number of cartels prosecuted in the last decade is substantially greater than what had been previously achieved. Furthermore, leniency programs are the main reason for this improvement in the number of prosecuted cartels. The data refers to the use of leniency programs in any form (both for total and partial immunity).

However, as it has been already mentioned, very few of these discovered cartels have to do with public procurement markets. There are many reasons for this, the most important being that public procurement cartels are mainly of a domestic nature and very seldom fall under Community law. Although important in principle, the problem of jurisdiction does not seem very relevant in explaining the lack of discovery of bid-rigging cartels, since public procurement cartels are rarely found in the decision records of European national competition authorities. The reason, therefore, has to lie somewhere else.

It has to do with the reasons why a firm would decide to participate in a leniency program. In the experience of the EC, there are two major reasons why firms apply for leniency.

First, in the process of merger notifications, the acquiring companies try to identify all the liabilities that they would be subject to. When due diligence leads the acquiring firm to discover that the acquired company had been involved in a cartel, it is very likely that the buyer would ask for leniency. This alliance between merger control and leniency has been documented very often and, at least in the European Union, led to the discovery of many cartels.[14] The reason why bid-rigging agreements are not reported probably has to do with the relatively small size of the firms involved and with the fact that a merger between them would not fall under the turnover threshold that would trigger a notification.

Second, a firm would have a high incentive to ask for leniency if the firm believes that a cartel would break up anyway. In such circumstances, the firm would still be liable. However, the firm would no longer enjoy the high profits of the cartel.[15] So the stability of cartels, typical in public procurement markets, is a further deterrence for leniency.[16]

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[13] Commission Notice on Immunity from Fines and Reduction of Fines in Cartel Cases, 2006 O.J. (C 298) 17.

[14] Informal conversation with Dr. Kirtikumar Mehta, the first director of the Cartel Directorate of the EC Directorate General for Competition.

[15] If this is well understood by cartel members, the leniency program would add to the stability of the cartel (cartel members would not cheat as an insurance against a leniency application).

[16] If this is true, then the existence of the leniency program increases the stability of cartels (if I know that if I cheat, the probability of one cartel member asking for leniency increases, then I will not cheat). However, there is no evidence for this.

Table 2. Cartel discovered by the European Commission, 1995–2010

Year	**1995**	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**
Number of cartels without leniency	1	2	0	4	1	1	2	0	0	0	1	1	1	0	0	0
Sanctions on cartels without leniency (million EUR)	12	1	0	179	99	3	103	0	0	0	44	10	992	0	0	0
Number of cartels with leniency	0	0	0	0	0	1	6	8	4	4	4	5	8	7	4	6
Sanctions on cartels with leniency (million EUR)	0	0	0	0	0	110	1581	821	388	368	639	1833	2346	2214	1633	3033

Sources: DG COMPETITION, ANNUAL REPORTS (various years).

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Finally, in some countries, like Italy, organizing a bid-rigging cartel is a criminal offense. Therefore, applying for leniency may still leave those responsible for the cartel liable to criminal investigation unless leniency is also extended to the criminal side.

V. HOW THEN COULD BID-RIGGING CARTELS BE DISCOVERED?

Contrary to normal cartels, where the participating firms agree on prices or on territories so that customers face an information gap with respect to competitive prices, bid rigging in public procurement requires that the participating firms agree on the bid participation strategy (who wins and at what price; who will participate today; and who wins and who participates in future bids). As a result, bid riggers leave a lot of evidence on the strategies pursued that a well-trained public administration official could indeed identify. As a result, while a public procurement cartel is stable on the supply side, it could be discovered by due diligence on the demand side. This is the opposite of what happens with private market cartels.

The preliminary question to ask is whether a public official responsible for public procurement has the right incentives to put in the effort necessary to identify a cartel. The answer is simply no. The public official is not evaluated on how many cartels he discovers but on his ability to set up and to run bidding processes and how quickly the goods and services he purchases are actually delivered. Suspicion that there is a cartel delays the whole process of purchasing. Furthermore, the money that is being saved because of the dismantling of a cartel usually does not remain in the administration that actually discovered or helped discover the cartel, but is redistributed to the general administration's budget. For all these reasons, public purchasers are generally indifferent about the existence of cartels. Nobody could ever blame public purchasers that they paid too much because of a cartel.

For public administration to become more interested in discovering cartels, the incentive structure has to change—for example, by having at least part of the savings earned from dismantling a bid-rigging cartel stay with the administration that discovered or helped discover the cartel. Furthermore, the career of a public employee could also be made dependent on the number and importance of cartels the public employee contributed to identifying.

The OECD Competition Committee has set up a guidance procedure for procurement officials aimed at helping them discover bid-rigging cartels.[17] The guidance identifies a number of elements that purchasing officials have to consider in the running of a bidding processes—for example, attention to

[17] *See* Organization for Economic Cooperation & Development, Cartels and Anticompetitive Agreements, Fighting Bid Rigging in Public Procurement, http://www.oecd.org/document/29/0,3746,en_2649_37463_42230813_1_1_1_37463,00.html.

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any evidence leading them to suspect that rivals got together before the bidding and discussed their respective participation in the procedure. In that case, some analysis of previous bids and/or bids by others may help them conclude that there is bid rigging. However, public administration officials have to be trained in the use of this guidance because it requires skills and competencies different from those needed for successfully organizing and running a bidding procedure.

Government employees often believe they should have full proof of bid rigging before reporting to the competition authority. Since this is quite unlikely, they tend to keep any suspicion to themselves. This is why competition authorities should create a special channel of communication for purchasing officials where they could communicate to the authority any suspicion they may have on a bid.

There are also some very important procedural and legal steps that should be taken to make bid rigging much more difficult.

The first is to centralize purchases (or make sure that bids are not made artificially too small so that the construction of a large infrastructure project cannot be easily divided up among all the firms in the industry). This way, the information on the different bids can be found within the same organization so that any irregularity across different bids can be more easily identified. Furthermore, a centralized purchasing agency can organize bids of higher value (purchasing for a number of administrations) so that bids would be more infrequent and bid-rigging agreements would be more difficult to maintain.

Also, the rules that favor small firms in their participation in tenders, in which individually they would not be able to participate because of their small size, should be made much more rigorous. In particular, temporary consortia should only be allowed if comprised by firms producing complementary goods or services, while simple horizontal consortia should be prohibited. In fact, temporary consortia between rivals are very often a tool for enforcing a cartel more so than a way to increase competition.[18]

VI. CONCLUSION

Bid-rigging cartels are much more stable than normal cartels. Indeed, in normal cartels, members have an incentive to cheat because they increase assigned profits by slightly lowering the cartel price and increasing quantities beyond their monopoly level. In bid rigging, quantities are fixed and bidding is only used to identify the lowest possible price. Furthermore, bidding

[18] There is also an efficiency reason why temporary consortia between small rivals should be prohibited: big tenders require big firms because they have the organizational capacity to handle them. The organizational capacity of a big firm is never equal to that of a sum of smaller firms.

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markets are much more transparent than normal markets, further reducing the incentive to cheat.

The relative stability of bid-rigging cartels has a strong impact on the effectiveness of leniency programs in bid-rigging cartels. Since leniency applications tend to be more probable when a cartel is less stable, leniency is quite uncommon in bid-rigging cartels. There are, however, instruments that public administrations can adopt to more effectively discover them.

First, since bid rigging requires firms to rotate in the winning of different bids, public administrations can centralize biddings and make each bid larger so that the incentive to cheat increases. This is because firms would have to wait too long for a second bid to be launched and would be much less certain about the regularity of the frequency of bids.

Second, temporary consortia, which are often organized to allow smaller firms to participate in larger bids for which individually they would not qualify, should be allowed only if of a vertical nature, putting together firms producing complementary goods and services.

Third, since the incentive of public purchasers is to be quick and fair (so that no appeal against their procedures is undertaken), they are not interested in denouncing a cartel, even if they suspect one exists. The money saved from a cartel that an administration helped discover should at least in part remain with the administration itself, and the official who helped discover a cartel should gain some career benefits.

Fourth, discovering bid-rigging cartels requires different skills and competencies than those necessary for successfully running a bid. Hence, public purchasers should be adequately trained along the lines identified by the OECD guidance.

Finally, competition authorities should create a special channel of communication with public purchasers, so that they would know that informing the authority on any suspicion they may have is easy and does not make them responsible vis-à-vis the firms involved.

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