

**DIRECTORATE FOR FINANCIAL AND ENTERPRISE AFFAIRS  
COMPETITION COMMITTEE**

**ROUNDTABLE ON EX OFFICIO CARTEL INVESTIGATIONS AND THE USE OF SCREENS TO  
DETECT CARTELS**

**-- Note by Sweden --**

*This note is submitted by Sweden to the Competition Committee FOR DISCUSSION under Item X at its forthcoming meeting to be held on 30-31 October 2013.*

**JT03345388**

**Complete document available on OLIS in its original format**

*This document and any map included herein are without prejudice to the status of or sovereignty over any territory, to the delimitation of international frontiers and boundaries and to the name of any territory, city or area.*

## ROUNDTABLE ON EX OFFICIO CARTEL INVESTIGATIONS AND THE USE OF SCREENS TO DETECT CARTELS

-- Note by Sweden --

### 1. Proactive and Reactive Detection Measures

1. The Swedish Competition Authority (SCA) uses a combination of proactive and reactive detection tools. Reactive detection through measures such as leniency and/or complaints and tip-offs is of course crucial. For the SCA, as for competition authorities in many other small economies, it is a challenge to make our leniency system work effectively. Proactive detection tools are very important since an effective leniency program presupposes a certain degree of fear of being detected. Consequently, proactive detection can increase deterrence directly, as well as contribute to increasing the effectiveness of reactive detection tools.

2. The decision to divert more resources from reactive to proactive detection or vice versa is influenced by the number of leniency applications and the quality of tip-offs received by the Competition Authority. Leniency cases will generally receive the highest priority, but for the SCA as for all authorities who do not normally receive a large number of leniency applications it is crucial not to be entirely dependent on the incentives of third parties. The optimal cartel detection policy should, in the SCA's opinion, always consist of a combination of both reactive and proactive methods.

3. The decision as to how to divert resources is also influenced by the authority's workload at a given time. If the authority already has a large number of ongoing high-quality cartel investigations this is likely to affect the willingness to devote more resources to proactive detection. The SCA however always strives to keep up to date with the development of new cartel detection methods and at most times has at least one ongoing case involving proactive methods.

#### *1.1 The SCA's policy towards ex-officio cartel investigations*

4. Ex-officio enforcement is important for the SCA, but we do not prioritize ex-officio investigations differently to cases initiated otherwise. The decision to prioritize a case is based on our prioritization policy, which is public and can be found at the SCA's website,<sup>1</sup> and depends on the gravity of the alleged infringement, the need to establish new precedent to provide guidance and whether the SCA is the best-placed authority to take action regarding the matter or whether it would be more suitable for it to be dealt with by applying a different system of rules.

---

<sup>1</sup> [http://www.konkurrensverket.se/upload/Filer/ENG/About/Prioriteringspolicy\\_eng.pdf](http://www.konkurrensverket.se/upload/Filer/ENG/About/Prioriteringspolicy_eng.pdf)

## 2. Cartel Screens

### 2.1 *The SCA's experience of cartel screening methods*

5. The SCA has used different types of behavioral cartel screens on several different markets. The markets under scrutiny have in most cases been identified based on tip-offs which, in their own right, have not been sufficient to launch a formal investigation. Such tip-offs are often received from procuring entities or procurement officials, but also from other informants. A number of vague tip-offs that a market is not functioning well could together form a base for initiating a pre-study involving cartel screening. The market chosen for screening should also be a type of market where collusion is likely to occur, and one which lends itself to empirical analysis (for instance because public tender data is available to the authority). The following are examples of types of analysis used in different cases.

#### 2.1.1 *Screening of winning bids*

6. The SCA had for some time had suspicions that the market for funerals and transportation of deceased persons was malfunctioning. After a tip-off was received from a procurement official we chose to perform a screening of all public tenders carried out on this market during a two-year period. In the screening we looked only at winning bids. The analysis revealed that there were several tenders where two or more firms had submitted exactly the same prices (and consequently had all been awarded contracts). We concluded that it was highly unlikely that the different firms would have independently submitted exactly the same prices. Because the bid-rigging scheme in this case was not particularly elaborate there was no need to use more advanced economic methods. On the basis of the screening results and the tip-off, the SCA successfully applied to Stockholm City Court for a warrant to conduct a dawn-raid. The investigation ultimately led to the imposition of administrative fines on three companies.

#### 2.1.2 *Analysis of deviation from optimal bids<sup>2</sup>*

7. Every company participating in a tender should strive to place the optimal bid in consideration of its own costs. In a tender involving serious (non-colluding) tenderers, the factual bids should differ very little from the optimal bid. This type of analysis is based on the presumption that the tender involves goods or services which can easily be compared and where tenderers' costs can be assumed to be similar. That is, homogenous products and identical, or else low or insignificant, transportation costs. An example of such a product could be asphalt, which, when specified in a procurement contract, is completely homogenous and is usually produced close to the point of delivery. If there is a cartel on such a market, the companies involved may display different bidding strategies where in fact they should normally have very similar strategies. Using a regression analysis it is possible to estimate each company's optimal bid. On a collusion-free market, deviations from that optimal bid should be random and not follow a particular pattern. If two companies have a cartel, however, the deviation from the optimal bid – the residuals in the calculation - will form a non-random pattern. The deviation that Company X has from its optimal bid will in a cartel depend on the deviation that Company Y has from its optimal bid.

8. In the event that a non-random pattern emerges, the second part of the analysis investigates that pattern more closely. If all companies have placed their bids independently of each other and calculated their optimal bids only taking into account their own costs, there should be no connection between their deviations. If a pattern emerges it might be either positive or negative. A positive connection is when the bids from two companies have the same degree of deviation from their optimal bids in several tenders. On the other hand, if a negative connection is found, that is if a company has a large deviation when its competitor has a small deviation and that pattern emerges in several tenders, this might indicate cartel

---

<sup>2</sup> Bajari & Ye (2003).

behavior. The companies may in that case jointly have decided which company should win and taken turns submitting bids that are calculated based on their costs and bids not correlated with their cost function, i.e. phantom bids. The factor which will decide whether or not there is a connection is the level of significance, i.e. the amount of evidence required to accept that an event is unlikely to have arisen by chance. What an economist looking for cartels wants to find in this type of analysis is a negative connection with a low level of significance. If this pattern can be observed then a behavior which is typical for cartel participants has been found. The winning bids are set very close to the optimal bids. The losing bids are much higher than the optimal bid.

9. The SCA has tested this type of analysis only once and so far has not used the information to apply for a warrant. The reason for this is that the results so far have not been conclusive enough. The case is still under investigation and we will in the coming months continue and broaden the analysis to involve more tenders.

### *2.1.3 Analysis of percentage differences between winning and losing bids*

10. This method has also been applied once by the SCA. The origin of the case was information received by the SCA that there was a large cartel between construction companies in the north of Sweden. The informant claimed that the modus operandi of the cartel was to set the price of the winning bid as a starting point and then decide on the percentages by which each losing bid would differ from that bid. The SCA's analysis involved looking at the first decimal place of the percentage difference between bids.

11. If bids are calculated independently of each other and the differences between bids on average are large enough (several percentage points), there should be no pattern identifiable in the first decimal place (e.g. 7.51 %) of the percentage differences between the winning bid and each losing bid, respectively. Each number, 0-9, should be equally prevalent when percentage differences are rounded off to one decimal place. If a pattern is repeated in a number of tenders, especially if you can see the pattern between more than two key players and compare their bidding pattern to other companies' patterns (companies which are not suspected of being part of the cartel) that pattern is likely to be the result of cartel behavior. The SCA's analysis showed that the probability that a pattern such as that identified in the case at hand could emerge at random, was only about 1 in 3000 if bids were submitted independently (i.e. in the absence of collusion).

12. Based on this information and the information from the informant, we applied and received permission to conduct dawn raids at the sites of the suspected cartelists. During the first half of 2012 we analyzed the material from the dawn raids and interviewed officials from the suspected companies. However, neither the material from the dawn raids nor the results of the interviews produced enough evidence to take the case to court. Consequently, the investigation was closed.

### *2.1.4 Analysis of patterns in submitted prices*

13. This analysis involved prices submitted by three different companies in tenders. An informant contacted the SCA and claimed that there was a cartel on the market for moving services. To verify the veracity of that allegation we searched for patterns in the prices submitted by the three companies in tenders. The analysis revealed that some companies submitted bids that would have resembled corporate strategic bidding had the companies belonged to the same group. Corporate strategic bidding is a term used for the case when several bidders from the same group coordinate their bidding in a tender in order to maximize the chances of success. All of the bidders involved submit tenders with very favorable terms, for example, a price of zero dollars, in one separate category, but less favorable conditions in other categories. The favorable terms in one category leads to all of the bidders receiving a good average score and hence

being awarded the framework contract. When the same pattern is observed by independent firms, it may signal that the companies involved have an anticompetitive agreement.

14. Based on the results of the analysis and the information from the informant we applied for a warrant. Dawn raids were carried out in April 2013 and the case is still under investigation.

## **2.2 *Benefit and costs of implementing cartel screening methods***

15. It is the SCA's opinion that it is possible to find cartels using screening and economic analysis. Although we see great potential in these methods, they normally need a "trigger" – for example that an informant has provided some information – in order to be useful on an operational level. The trigger is needed partly to choose the market to analyze and partly because the economic methods in many cases do not give a sufficiently conclusive indication of collusion so that they alone can meet the legal requirements to warrant a dawn raid. Economic detection methods offer an alternative when there are indications of a cartel but conventional methods for investigating, for whatever reason, have not given any results. They may in such cases offer an opportunity to progress with an investigation that otherwise would have halted. Hence, we believe that the benefits of using cartel screens justify the costs. In fact, we will in September 2013 devote more resources to developing our cartel detection methods. In a project devoted solely to cartel detection we will analyze a large data base consisting of information from public tenders. The analysis will focus on markets where we have seen competition problems in the past, but where we so far have not received leniency applications or tip-offs detailed enough to initiate investigations.

## **3. Public Procurement**

16. Besides its task to safeguard and increase competition, the SCA is also the supervisory body for public procurement. One important synergy which arises from combining these two powers in one authority is the bid-rigging information we receive through our procurement work.

### **3.1 *The SCA's guidance for procurement officials***

17. The SCA provides different types of guidance for procurement officials. We frequently give presentations or arrange seminars for public procurement officials with the purpose of teaching them how to recognize signs of bid-rigging. In 2009 we published a checklist for procurers, which can be used for private companies as well as public entities. Together with the checklist we also produced a brochure entitled "Honesty pays". The purpose of the brochure is to increase procurers' awareness that they can actually conduct better business by using the checklist and by being observant. When creating the checklist we were inspired by the OECD checklist and also by checklists from several other NCAs all over the world. The checklist and the brochure can be found at the SCA's website<sup>3</sup> and have also been handed out to procurement officials all over Sweden.

18. The checklist sets out twelve signs which suggest that companies may have formed a bid-rigging cartel:

- Suspiciously high prices?

19. If all or most of the tenders are significantly higher than in previous tender procedures, higher than the companies' list prices or higher than a reasonable estimate of their costs, some companies may have submitted so-called courtesy tenders. This practice, also known as "cover bidding", means that

<sup>3</sup> [http://www.konkurrensverket.se/upload/Filer/ENG/Publications/Honesty\\_pays.pdf](http://www.konkurrensverket.se/upload/Filer/ENG/Publications/Honesty_pays.pdf) and <http://www.konkurrensverket.se/upload/Filer/ENG/Publications/Checklist.pdf>

companies submit tenders for the sake of appearance only, in the knowledge that another company will submit a more competitive tender.

- Prices that are suspiciously inconsistent?

20. A company submitting prices that are significantly higher in some tendering procedures than in others, without any obvious reason such as differences in costs, may suggest it is involved in a bid-rigging cartel. Companies may in this case have agreed on who is to win the contract, for example for a particular product or customer, or within a certain area.

- Suspiciously big differences in prices?

21. If the difference between the winning bid and the other bids is inexplicably large, it may suggest that some companies in the sector have formed a bid-rigging cartel to keep price levels up. The winning bid may have been submitted by a company that is not a member of this cartel and therefore submitted a bid significantly lower than those from the companies in the cartel.

- Suspiciously similar prices?

22. If several companies have submitted bids with identical or suspiciously similar prices, it may indicate that they have agreed to share the contract.

- Suspected boycott?

23. If no bids are received, there may be a coordinated boycott with the purpose of influencing the conditions of the contract. This suggests that the companies have agreed to abstain from submitting bids. The aim of a coordinated boycott may, for example, be to divide a certain market between the members of a cartel.

- Suspiciously few bids?

24. If unexpectedly few companies submitted bids, it may indicate the existence of a market-sharing cartel. The purpose of such a cartel is to avoid competition within, for example, certain geographic areas. In such cases, companies abstain from submitting bids within one area so that a certain other cartel member can win the contract.

- Suspiciously similar bids?

25. If bids refer to industry agreements that affect the price, the companies may have agreed to apply, for example, common price lists, delayed payment fees or other sales conditions for the sector. Such agreements are generally illegal.

- Suspicious patterns?

26. If the same company wins the contract every time it is renewed, there may be a market sharing agreement between the companies in the market. Contracting authorities should be aware of patterns, such as companies always submitting the lowest bid in a certain geographic area or with a certain contracting authority. Another way in which companies illegally divide the market between themselves is when they take turns to submit the lowest bid.

- Suspicious subcontracting arrangements?

27. If the company that won the contract assigns or subcontracts part of the contract to a competitor that submitted a higher bid in the same procedure, this may suggest a bid-rigging cartel. In this case, the companies may have agreed that the winner will compensate its competitors by engaging them as subcontractors.

- Suspiciously careless tenders?

28. If the winning bid is the only one that has been compiled in a thorough and detailed way, while the others have been drawn up more carelessly, it may suggest a bid-rigging cartel. In this case, only the winning company has devoted resources to submitting a thorough bid.

- Suspicious wording?

29. If there are similar oddities in several different bids or in the questions that the companies ask the contracting authority, it may suggest that the companies are colluding. Contracting authorities should look out for identical wording, identical errors in calculations or the same notepaper and standard forms.

- Suspected joint bids?

30. A joint bid submitted by more companies than necessary to perform the assignment may be illegal.

### **3.2 *Interactive guidance***

31. The SCA markets the checklist not only towards procurement officials, but also in our contacts with trade organisations. From representatives of trade organisations and companies who participate in tenders, as well as from public procurers, we have over the years received many questions about what types of cooperation between companies is actually allowed. Some cases investigated by the SCA also indicate that companies are not always totally aware that their cooperation could be illegal. Since it is part of the SCA's tasks to prevent competition problems and inform the public we also decided to publish guidance in this respect. The guidance was published in April 2013. It is a web-based, interactive tool which can be found on the SCA's website. It can be used by both procurers and companies and focuses on the questions which are most frequently asked – from the specific "Can we cooperate in this particular tender" to "What are the forms of cooperation permitted" and "When am I allowed to use a competitor as subcontractor?". The user is also informed of what the consequences of illegal cooperation might be.

32. Raised awareness among companies will hopefully prevent at least some cartels from being formed. Since the interactive guidance can also be used by procurers it aims at helping them identify what types of cooperation in tenders might be illegal. Consequently, the combination of the checklist and the interactive guidance is hoped to increase the quality and the number of tip-offs received by the Competition Authority. Even though not every tip-off is detailed enough to let us carry out a dawn-raid, they all add pieces to the puzzle and show us on which markets problems seem to occur. This helps us in judging where we may have the greatest chance of being successful in the use of screening and economic analysis of tenders to detect cartels. Hence, in the SCA's opinion an effective combination of proactive and reactive detection methods needs to involve guidance for procurement officials.

### **3.3 Results of the SCA's cooperation with public procurement bodies**

33. The SCA has launched several successful investigations following cooperation with procurement bodies. An analysis of cartel cases initiated after 1 January 2007 and in which the SCA has conducted dawn raids shows that more than half of the cases were based wholly or partially on tip-offs from procurers. For other cartel cases we have no statistics in that respect, but can conclude that procurers are one of the most important categories of informants for the Competition Authority.

34. The statistics gives a hint of the importance of the SCA's cooperation with procurement bodies, but the truth is that the benefits of our outreach activities towards procurers cannot be fully estimated. In a questionnaire sent out to a large number of procurement bodies in 2013, 21 % of procurers stated that they, when they have seen signs of cartel activity in their tenders, have chosen to contact the suspected companies and not the Competition Authority. Hence, we do not know if there indeed was a cartel, nor if the cartel has continued its bid-rigging activity after being contacted by the procurer. Additionally, it is our expectation that our training of procurers contributes to increasing their awareness of how to make their tenders less prone to bid-rigging and, consequently, preventing cartels from being formed.