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**REPORT ON THE NATURE AND IMPACT OF HARD CORE CARTELS  
AND SANCTIONS AGAINST CARTELS UNDER NATIONAL COMPETITION LAWS**

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## **REPORT ON THE NATURE AND IMPACT OF HARD CORE CARTELS AND SANCTIONS AGAINST CARTELS UNDER NATIONAL COMPETITION LAWS**

### **Executive Summary**

This Report by the OECD Competition Committee continues the programme begun in 1998 with the Recommendation of the OECD Council on hard core cartels. That Recommendation and a subsequent progress report by the Committee note that hard core cartels impose significant harm upon consumers world-wide, and they call for enhanced sanctions against cartel participants to serve as a deterrent to that conduct. This Report examines in greater detail (1) the nature and impact of cartels, (2) the sanctions against cartels that are available under national competition laws and that are imposed by national competition agencies and (3) the optimal use of sanctions for achieving the deterrence of cartel activity. The following general points are made in the Report:

1. *The worldwide economic harm from cartels is clearly very substantial, although it is difficult to quantify it accurately. Conservatively, it exceeds many billions of U.S. dollars per year.*

Cartels harm consumers and have pernicious effects on economic efficiency. A successful cartel raises price above the competitive level and reduces output. Consumers choose either not to pay the higher price for some or all of the cartelised product that they desire, thus forgoing the product, or they pay the cartel price and thereby unknowingly transfer wealth to the cartel operators. Further, a cartel shelters its members from full exposure to market forces, reducing pressures on them to control costs and to innovate. All of these effects adversely affect efficiency in a market economy.

It is not easy to quantify these effects, however. It would require comparison of the actual market situation under the cartel to that which would exist in a hypothetical competitive market. Competition officials usually do not undertake to make such a calculation, both because it is difficult to do and because their laws usually do not require it. When an estimate of harm is necessary, however, most officials employ a proxy, which is the unlawful gain accruing to the cartel members from their activity. In its simplest form, this estimation is the product of the cartel “mark-up” above the competitive price and the commerce affected (in units) by the cartel agreement. Even this calculation can be difficult, as it requires an assessment both of the amount of “affected commerce” and of what the “competitive” price would have been absent the agreement.

The OECD’s Competition Committee conducted a survey of cartel cases conducted by its Members between 1996 and 2000, in an attempt to learn more about the harm from cartels. The responding countries described a total of 119 cases, but in many of these it was not possible to estimate harm. Still, the amount of commerce affected by just 16 large cartel cases reported in the OECD survey exceeded USD 55 billion world-wide. The survey showed that the cartel mark-up can vary significantly across cases, but in some it can be very large, as much as 50% or more. Thus, it is clear that the magnitude of harm from cartels is many billions of dollars annually.

2. *Cartel operators can go to great lengths to keep their agreements secret, showing that they fully realise that their conduct is harmful and unlawful. In some cases, they are explicit in their contempt for the competitive process.*

The results of the OECD survey provided examples of the lengths to which cartel conspirators have gone to hide their actions. Conspirators in one case, faced with a document demand from the competition authority, loaded two automobiles with bid files and took them to the country, where it took a full day to burn them in “four huge bonfires.” In another case, the conspirators carefully controlled the creation and retention of incriminating documents by, among other things, conducting internal audits to verify that such documents no longer existed. When it was felt necessary to keep certain spreadsheets showing allocations of business among the conspirators, the files were copied onto computer disks and hidden in the eaves of one employee’s grandmother’s house. In another case, internal documents from one of the defendants revealed an unofficial motto of the company: “Our competitors are our friends, our customers are the enemy.”

3. *The principal purpose of sanctions in cartel cases is deterrence. Ideally, sanctions should take away the prospect of gain from cartel activity. Because not all cartels are uncovered and punished, many experts contend that effective deterrence requires imposing a fine against organisations participating in a cartel that is a multiple of the estimated gain on those cartels that are uncovered. Further, sanctions against individuals can provide important, additional deterrence.*

It is widely agreed that an effective sanction against a cartel should take into account not only the amount of gain realised by the cartel but also the probability that any given cartel will be detected and prosecuted. Because not all cartels are detected, the financial sanction against one that is detected should exceed the gain actually realised by the cartel. Some believe that as few as one in six or seven cartels are detected and prosecuted, implying a multiple of at least six. A multiple of three is more commonly cited, however. Determining the gain, as noted above, can be difficult. Some experts recommend employing a proxy when the gain cannot be calculated, such as a percentage of total turnover of the participants.

Whether or not it is possible to calculate accurately an optimal financial sanction against enterprises, in practice it is difficult to implement it. Sanctions against natural persons, placing them at risk individually for their conduct, provide an overall enhancement to deterrence. While, as noted below, relatively few countries currently impose any kind of sanction against individuals for cartel conduct, some are considering the enhancement of such sanctions.

4. *Strong sanctions against enterprises and individuals increase the effectiveness of leniency programs in uncovering cartels and provide incentives to cartel participants to co-operate with a cartel investigation.*

Cartel sanctions also provide an incentive for cartel participants to defect from the secret agreement and provide information to the investigators. The threat of very large fines against companies for cartel conduct provides incentives for firms to defect from the cartel and benefit from leniency. Similarly, the threat of strong sanctions against individuals provides added incentives for those individuals to “blow the whistle” on cartel conduct and to offer co-operation to government investigators in exchange for reduction or elimination of the punishment.

5. *The competition laws of most countries provide for the imposition of large fines against organisations for cartel conduct. In some cases, however, the maximum fines found in these laws may not be sufficiently large to accommodate multiples of the gain to the cartel, as recommended by many experts. In some countries, natural persons can also be fined, and in fewer countries they can be sentenced to imprisonment. The recovery of money damages by victims of a cartel is*

*another component of financial sanctions against cartels. A minority of OECD countries permit the recovery of such damages.*

The maximum fines found in the competition laws of most countries are expressed either in absolute terms or as a percentage of the annual turnover of the respondent company. Without more experience in assessing the unlawful gain realised by cartels, it is difficult to know whether these maximums are sufficiently large to accommodate the desired multiples of that gain. One benchmark in this regard might be the new law in New Zealand, which recently completed an in-depth study of optimal sanctions in cartel cases. The maximum fine provided in that law is the greater of three times the unlawful gain, NZD 10 million (the equivalent of approximately EUR 4.8 million) or 10% of the total turnover of the enterprise. In most countries whose laws contain absolute maximum fines the maximum is below the equivalent of NZD 10 million. Several of these countries have as an alternative maximum, however, 10% of total turnover of the respondent, which is consistent with the New Zealand standard.

In several OECD countries, but less than half, natural persons can be fined for cartel conduct, often for very large sums. The laws of nine OECD countries provide for imprisonment of natural persons. Fourteen countries permit the recovery of money damages by cartel victims.

6. *Some countries are now imposing very large fines on enterprises for cartel conduct, but more countries are still not doing so. Few countries are aggressively sanctioning natural persons. There is a noticeable and welcome trend toward stronger sanctions, however. Several countries are revising their laws and practices with a view toward increasing sanctions on cartels and their members.*

The OECD survey showed that ten countries had imposed organisational fines in excess of the equivalent of USD 1 million within the survey period of 1996-2000. In three countries the largest fines were in excess of USD 100 million. In two the largest fines were between USD 10 million and 100 million and in the remainder the largest were between 1 and 10 million. Within the survey period these large fines increased in number and severity in the later years. In the remaining countries, however, no fines exceeded USD 1 million and in some the fines were small or nonexistent.

Only four countries had imposed fines on natural persons. In three of the four the largest fines exceeded the equivalent of USD 100,000. Only two countries, Canada and the United States, had imposed sentences of imprisonment on natural persons, and the U.S. was by far the leader in this regard. It imposed 28 such sentences in 1999 and 18 in 2000. The average length of those sentences was approximately 8 months in 1999 and 10 months in 2000. While the possibility for the recovery of money damages by cartel victims exists in several countries, in only the United States is the practice common.

Several countries have just completed or are in the process of reviewing their laws and policies relating to cartels, with a view toward increasing their enforcement efforts in this area. Those countries include Brazil, Canada, Denmark, France, Israel, the Netherlands, New Zealand, Norway, Sweden, Switzerland and the United Kingdom.

7. *Available data indicate that sanctions actually imposed have not reached the optimal level for deterrence.*

The OECD survey permitted comparison of financial sanctions with the cartel gain in a relatively few cases. The fines, expressed as a percentage of the gain, varied widely, from 3% to 189%. In only four cases, two from the United States, one from Canada and one from Germany, were the fines more than 100% of the estimated gain, and in no case was the fine as high as two or three times the gain, as recommended by some experts. Thus, it must be concluded that, while there is a distinct, if uneven trend toward more rigorous sanctions in cartel cases, available data indicate that larger sanctions are required to achieve effective deterrence.

## **I. Introduction**

1. The 1998 Recommendation of the OECD Council Concerning Effective Action Against Hard Core Cartels (“Cartel Recommendation”) noted in its Preamble that “. . . hard core cartels are the most egregious violations of competition law and . . . they injure consumers in many countries by raising prices and restricting supply, thus making goods and services completely unavailable to some purchasers and unnecessarily expensive for others.” The Preamble notes further that hard core cartels “. . . create market power, waste, and inefficiency in countries whose markets would otherwise be competitive.” The Recommendation calls on OECD Members to provide for “. . . effective sanctions, of a kind and at a level adequate to deter firms and individuals from participating in such cartels.”

2. The 2000 Cartel Report noted that an important step in enhancing anti-cartel enforcement is “overcoming the knowledge gap concerning the harm done by hard core cartels.”<sup>1</sup> Improving public knowledge about the nature of this conduct and the harm that it causes would bolster popular support for more effective action against it. The Report also called for further work on sanctions against cartels, recognising that the principal purpose of such sanctions is deterrence.<sup>2</sup>

3. This report is a follow-on to that earlier work. It discusses the types of harm that can result from cartel activity and notes issues relating to quantifying that harm. It describes some recent cartel cases in Member countries in which some approximation of the level of harm was estimated, and illustrates the nature of cartels with examples of evidence from such cases. It reviews the laws of Member countries providing for sanctions against cartels and lists some sanctions that were applied in recent cases. Finally it discusses the subject of optimal sanctions and again considers some recent cases relating to that question.

## **II. The nature and impact of cartels**

4. Cartels are universally recognised as the most harmful of all types of anticompetitive conduct. Moreover, they offer no legitimate economic or social benefits that would justify the losses that they generate. Thus, they are condemned in all competition laws; in some countries they are classified as a crime. Sophisticated cartel operators know that their conduct is unlawful and so they conduct their business in secret, sometimes taking great pains to keep their agreements from the public and from law enforcement officials.

5. That the harm from cartels is large is undisputed. Quantifying it precisely, however, is difficult. Data collected through a recent OECD survey provide some additional information on the magnitude of cartels’ harm. The OECD’s study permits the following general, non-scientific but important conclusion: The harm from cartels is even larger than has been previously thought, and conservatively exceeds the equivalent of billions of U.S. dollars per year.

Issues of identification and calculation

6. It is helpful first to consider briefly the economic basis for the generally accepted conclusion that cartels cause great harm.

7. Cartels that successfully reduce output and raise price above the competitive level cause consumers, collectively, to purchase less of the cartelised product and to pay more for the quantity that they do purchase. There can be differing views about the real harm to society that results. Economists agree that there is a loss resulting from consumers' collective decision to purchase less of the product at the cartel price. A lower quantity of a product (or service) is produced and consumers are forced to substitute a less desirable product for that quantity that they can no longer afford to buy. There is another, usually larger loss to consumers resulting from their having to pay the higher cartel price for that quantity that they do purchase. Without more, however, economics could not conclude that society as a whole is worse off as a result of this "wealth transfer" from consumers to producers (the cartel operators).

8. Of course, economics is not the only means of determining cartel harm. There are social and equity issues that are relevant as well. It is difficult to be indifferent about the total effect of a cartel on consumers. They unwittingly pay a supra-competitive price that is the result of an agreement, usually secret, among producers who know, or should know, that their conduct is unlawful. Those circumstances plus the international consensus that an important purpose of competition laws is to protect consumers cause almost all competition experts to consider the wealth transfer effect as a cartel harm.

9. Cartels can have other harmful economic effects as well. In addition to the misallocation of resources described above, a cartel shelters its members from full exposure to market forces. The result could be reduced pressure to control costs and to innovate.<sup>3</sup> This harm to "productive" and "dynamic" efficiency is no less real than that to "allocative" efficiency described above, if even more difficult to measure.

10. Indeed, measuring any of the harms described above is difficult. The competition community tends to focus on the unlawful gain accruing to the cartel operators, because it is the easiest to calculate. There is another, equally important reason for concentrating on gain, however, which relates to sanctions. It is agreed that the purpose of sanctions in the cartel context is deterrence. As discussed further below, an optimal sanction should ensure that would-be cartel operators cannot expect to profit from such conduct, meaning that they would lose through sanctions whatever gains they might initially acquire. The optimal financial penalty, therefore, would take into account the gain from the unlawful conduct.

11. Calculating unlawful gain is also difficult, of course. In its simplest form it can be approximated by multiplying the increase in price resulting from the cartel agreement (the "overcharge") by the amount of turnover (in units) subject to the agreement.<sup>4</sup> Determining the hypothetical competitive price, or "reference price," that is used to determine the unlawful margin is itself difficult. One can either attempt to make a prediction of what the price would have been in the affected market, or use a "benchmark" price determined by examining one or more other markets comparable to the affected one where presumably there was no collusion.<sup>5</sup>

12. In sum, calculating the harm from cartels is difficult, and requires the use of various proxies and assumptions. There are several reasons why it should be done, however. The overarching one is the need to inform consumers and policymakers about the importance of implementing an aggressive program against this practice. It may also be necessary to calculate harm in order to provide redress to consumers who suffer from the effects of an unlawful agreement. An important additional reason, however, is that only by understanding the extent that cartels cause harm can governments apply appropriate sanctions against the practice, sanctions that provide an effective deterrent.

Estimates of actual harm

13. The Cartel Report noted recent prosecutions of international cartels in the United States, which disclosed that just ten such cartels had “affected over USD 10 billion in U.S. commerce,” and “cost individuals and businesses many hundreds of millions of U.S. dollars annually in the U.S. alone.” Taking into account the fact that these data represented the effects of only a few cartels in one economy (albeit the world’s largest), and that other cartels presumably are never discovered or prosecuted, the report extrapolated from that information the conclusion that the effects of hard core cartels world-wide are of great magnitude. The Report relied upon estimates that on average, cartels produce overcharges amounting to 10% of the affected commerce and cause overall harm amounting to 20% of affected commerce.

14. This report builds on the base provided in the Cartel Report, but progress in this area is difficult, for at least two reasons. First, most competition laws do not require proof of a specific harm as an element in the prosecution of a hard core cartel. While most countries have not embraced a “per se” rule like that in effect in the United States, proof of a specific level of harm is usually not required to establish liability, and so competition agencies usually do not undertake to do it. Second, as discussed above, it is difficult to calculate harm. Thus, even where proof of harm may be useful in arriving at an appropriate sanction it may not be done.

15. In early 2001 Working Party No. 3 of the Competition Committee collected data from 15 Member countries on cartel cases that they had processed between 1996 and 2000. The Members provided information about a total of 119 cases. These cases do not represent nearly all of the cartel cases prosecuted by the responding countries (nor indeed, by all OECD countries) in that period, however. Issues of reporting burdens or confidentiality of information kept some countries from reporting on all of their cases. Thus, these 119 cases represented substantially less than half of the total number of cartel cases prosecuted by OECD countries in the relevant period, although they do include many of the larger ones.

16. In October 2001 the Competition Committee held its first “Global Forum on Competition.” Delegations from eighteen non-Member countries<sup>6</sup> participated with Committee delegates in a two-day meeting on competition policy issues of interest to all participants. The invitees were asked to submit information about cartel cases that had been prosecuted in their countries in recent years. Twelve countries responded. Those responses were also employed in the preparation of this report. A summary of the responses is contained in Annex C.

17. The surveys provided some interesting information about the general characteristics of cartels that have come to the attention of competition agencies. By number, domestic cartels, or cartels that affect markets that are no larger than national boundaries and sometimes smaller, were predominant in the survey results. The participants in these cartels were usually local or domestic firms, though on occasion they were domestic subsidiaries or affiliates of foreign enterprises. Domestic cartels occurred in all economic sectors, but they were relatively more common in some sectors, including construction and construction materials (cement, concrete, asphalt), sales to government institutions, bulk food products, electrical equipment, and the services sector, including in particular local transportation services, the professions and health care. A single “profile” of markets that were subject to cartelisation did not emerge, but some characteristics did come up repeatedly, including high concentration (but not necessarily in some service markets), homogeneous products and, a factor that occurred in many cases, the existence of an industry trade association that provided the opportunity for conspirators to meet and agree. Some of these cartels had existed for many years, even decades, especially in countries that had not long been prosecuting cartels actively.

18. More recently, however, competition agencies have begun to uncover and prosecute large international cartels, whose participants are multinational companies headquartered in different countries. The number of reported international cartels was relatively small, which makes generalisation difficult, but these markets also tended to be highly concentrated, to involve homogeneous products and to have at the centre of the conspiracy an industry trade association. Several of the international conspiracies had devised complex price fixing schemes, which were augmented and made more transparent for their members by market allocation agreements, either in the form of quotas or territorial agreements. In some cases involving both domestic and international cartels the cartel operators had designed elaborate mechanisms to enforce the agreement and punish cheating.

19. In several of the reported cases evidence was developed showing that the cartel operators fully realised that their conduct was harmful and unlawful, causing them sometimes to go to great lengths to keep their agreement secret. Following are a few examples:

- Fire protection devices, Australia: Officials from one of the largest corporate defendants provided detailed evidence of deliberate destruction of incriminating documents after ACCC document demands were received. Two men, with the approval of their superior, loaded two automobiles with bid files and took them to the country, where it took a full day to burn them in “four huge bonfires.”
- Driving schools, Denmark: One person remarked: “. . . [I]f we compete on prices at that level, a bit of mental calculation will show that each of us would give away 75.000 DKK each year to our customers instead of earning the money ourselves. That would be a stupid thing to do.”
- Ready-mix concrete, Germany: The cartel kept detailed records, specifying in some cases the allocations of sales to the second decimal point. The system even specified who was to provide food and drink for the cartel meetings.
- Hotel association, Spain: the chairman of the hotel association wrote to his members: “. . . [W]e should make an important effort in order to obtain a price increase between two to four points over the inflation rate. . . .” At the same time the association was urging such an increase it represented to the Spanish government that it would not attempt to raise rates in order to help to control inflation.
- Lysine, U.S.: The now widely-viewed videotapes of cartel meetings contain several examples of overt, knowing conspiratorial activity, including some members joking at one meeting about inviting their customers and antitrust officials to sit with them. They also show an ADM executive exhorting his co-conspirators at one meeting to support the agreement, in which he says, “I wanna be closer to you than I am to my customer . . .” a sentiment that coincided with the oft-quoted unofficial motto at ADM, “Our competitors are our friends; our customers are the enemy.”
- Vitamins, U.S.: The conspirators went to great lengths to keep track of and destroy incriminating documents, including conducting internal audits to verify that such documents no longer existed. When it was felt necessary to keep certain spreadsheets showing allocations of business among the conspirators, the files were copied onto computer disks and hidden in the eaves of one employee’s grandmother’s house.

20. The surveys also provided information about harm resulting from the reported cases. Annex A provides information about some of the larger cases in the surveys. The data relating to amount of affected

commerce and harm are not complete, for the reasons outlined above, but they do support some general conclusions. It was possible to estimate the amount of affected commerce in 16 of these large cases. Many of them involved affected commerce in the hundreds of millions or billions of national currency. The total for the 16 cases exceeded USD 55 billion. In some of the other reported cases it was not possible to provide a specific estimate of affected commerce, but the reporting agency noted that it amounted to “many billions” of national currency. Taking into account the many cartel cases, both known and unknown, in which specific amounts of affected commerce cannot be calculated, it seems clear that the total of such commerce amounts to many billions of dollars each year.

21. Annex A also provides estimates of harm, expressed in terms of percentages of affected commerce, that could be derived in 14 of the cases. These estimates range from a low of 3% to a high of 65%. Specifically, there were two cases below 5%, five between 5% and 15%, four between 20% and 30%, and three at 50%-65%. Real-world data on actual harm is sparse, however. One relevant document, the United States Sentencing Guidelines, employs certain assumptions about gain and loss in the cartel context:

It is estimated that the average gain from price-fixing is 10 percent of the selling price. The loss from price-fixing exceeds the gain because, among other things, injury is inflicted upon consumers who are unable or for other reasons do not buy the product at the higher prices. Because the loss from price-fixing exceeds the gain, subsection (d)(1) provides that 20 percent of the volume of affected commerce is to be used in lieu of the pecuniary loss . . . [in calculating a base fine]. The purpose for specifying a percent of the volume of commerce is to avoid the time and expense that would be required for the court to determine the actual gain or loss. In cases in which the actual monopoly overcharge appears to be either substantially more or substantially less than 10 percent, this factor should be considered in setting the fine within the Guideline fine range.<sup>7</sup>

Empirical data supporting these percentages are sparse.<sup>8</sup> Interestingly, in the limited data (14 cases) from the survey, the median is between 15 and 20%. At the very least it seems clear that the gain from cartel agreements can vary significantly from case to case, and sometimes it can be very high. Moreover, since the actual loss to consumers includes more than just the gain transferred to the cartel, as discussed above, that loss – the total harm from cartels – is significant indeed.

22. In sum, it has been generally accepted for many years that cartels inflict substantial harm on consumers throughout the world. The experience of OECD countries in recent years, as they become more aggressive in finding and prosecuting cartels, has been to confirm that assumption. Indeed, recent cases against large, international cartels suggest that the dimensions of the problem are even larger than previously thought. It remains difficult to place a monetary value on the harm, but it is surely significant, amounting to billions of dollars annually.

### **III. Sanctions available and applied in cartel cases**

#### Sanctions in Members' Competition Laws

23. Annex B contains thumbnail descriptions of the available sanctions for hard core cartels in the laws of Member countries.

*Fines against enterprises*

24. The laws of most Member countries provide for the possibility of large fines against enterprises found to have participated in a cartel. Maximum permissible fines may be expressed either as a specific monetary amount or as a percentage of some measure of turnover, or both. In the first category are Australia (AUD 10 million), Canada (CAD 10 million per count for conspiracies and discretionary for bid rigging) and Mexico (375,000 times the minimum general wage prevailing in the Federal District, currently the equivalent of about USD 1.5 million). In the second category, maximum fines expressed as a percentage of turnover, are France (10% of world-wide turnover), European Union (10% of previous year's global turnover), Hungary (10% of previous year's turnover), Italy (10% of previous year's turnover), Sweden (10% of annual revenue), and United Kingdom (10% of UK turnover for the duration of cartel, maximum three years).

25. Several countries have both types of maximums: Czech Republic (CSK 10 million or 10% of "net turnover" for previous year), Finland (EUR 672,752 or 10% of previous year's global turnover), Ireland (EUR 3,809,214 million or 10% of previous year's turnover), Japan (administrative surcharge of up to 6% of cumulative sales of products subject to the agreement, maximum three years, criminal fine of up to JPY 100 million), Korea (surcharge of 5% of turnover affected by cartel or KRW 1 billion, criminal fine of up to KRW 200 million), Netherlands (EUR 450,000 or 10% of turnover), Poland (the lesser of EUR 5 million or 10% of previous year's turnover) Slovak Republic (SKK 10 million or 10% of previous year's turnover), Spain (EUR 901,518 or 10% of previous year's turnover) and Turkey (TRL 200 million or 10% of previous years gross income). Two countries also provide alternatives, but instead of total turnover the maximum is stated in terms of unlawful gains: Germany (administrative fine of EUR 511,292 or three times additional profit from the cartel and United States (USD 10 million or twice the gain to the cartel or loss to the victims). A recent amendment to the New Zealand law provided for three alternatives: the greater of NZD 10 million, three times the illegal gain, or if the illegal gain is not known, 10% of the enterprise's annual turnover. Denmark and Norway provide for fines, but maximums are not stated. In Norway a court can also order confiscation of the cartel gains.

*Fines against natural persons*

26. Several countries, but less than half, provide for the imposition of fines on natural persons involved in cartel conduct: Australia (AUD 500,000), Canada (CAD 10 million per count for conspiracies and discretionary for bid rigging), France (EUR 1,524,490), Germany (administrative fine up to EUR 511,292 or three times the additional profit from the cartel realised by the natural person (and not the enterprise); criminal fines of up to EUR 1,840,651 for collusive tendering), Ireland (EUR 3,809,214), Japan (JPY 5 million), Korea (KRW 200 million), Mexico (7,500 times minimum general wage in Federal District), New Zealand (NZD 500,000), Norway (unspecified fines), Slovak Republic (unspecified fines), Spain (EUR 30,050), United States (USD 350,000 or twice the gain to the cartel or loss to the victims). In the majority of countries that impose fines on natural persons the violation is classified as a crime.

*Imprisonment of natural persons*

27. Fewer countries provide for the criminal sanction of imprisonment for natural persons: Canada (5 years per count), Germany (5 years for collusive tendering), Ireland (2 years), Japan (3 years), Korea (3 years), Mexico (sanction determined by the judicial authority), Norway (6 years), Slovak Republic (5 years), United States (3 years).

*Recovery of damages by victims*

28. In the following countries it is possible for victims of cartel activity to recover damages for their monetary loss, either in the course of the enforcement proceeding by the competition authority or separately in a civil action: Australia, Canada, Denmark, Finland, Germany, Ireland (including exemplary damages), Japan, New Zealand (including exemplary damages), Norway, Spain, Sweden, Switzerland, United Kingdom, United States (three times actual damages).

Sanctions actually applied in cartel cases*Fines against enterprises*

29. Annex A provides data on sanctions imposed in several of the larger cases reported in the OECD survey on cartel cases. The monetary sanctions are also expressed as percentages of affected commerce and estimated harm, where those two factors could be calculated. The data show that in some countries large fines for cartel conduct, often in tens or hundreds of millions of national currency, are common. Ten countries have imposed fines in excess of the equivalent of USD 1 million. In three countries the largest fines were in excess of USD 100 million: the European Commission, Germany, and the United States; in two the largest were between USD 10 and 100 million: Canada and Korea; and the remainder were between USD 1 and 10 million: Australia, Finland, Japan, Norway and Spain. Other countries, of course, have not been so aggressive, but in several countries there are efforts underway to bring about substantially larger fines in cartel cases in the future, discussed further below.

30. Increases in fines in the United States have been particularly noteworthy in recent years. In the ten years prior to 1997 an annual average of USD 29 million in fines was collected. In 1997 USD 205 million was assessed, and in the four-year period 1997-2000 the total fines collected were USD 1.7 billion. This effort coincided with a new emphasis in the U.S. on prosecuting international cartels that harmed U.S. consumers. More than 90% of the 1.7 billion in fines collected in 1997-2000 was obtained in international cartel cases. Other countries reported similarly dramatic increases in fines in recent years, including Australia, Canada, the European Commission, Germany and Korea.

*Fines against natural persons*

31. Only four countries, Australia, Canada, Germany and the United States, reported in the survey that they had imposed fines on natural persons. All four were aggressive in targeting individuals for punishment, however. Canada, Germany and the United States each reported several fines that exceeded the equivalent of USD 100,000. Again, the U.S. has imposed some very large fines on natural persons in recent cases. In the graphite electrodes case, three individuals were fined in excess of USD 1 million, the largest of the three being 10 million. In a recent case involving bid rigging in sales of food to the New York City schools, one individual was fined 1 million and he and his company were required to pay 4.2 million in restitution.

*Imprisonment of natural persons*

32. Two countries, Canada and the U.S., reported sentencing individuals to terms of imprisonment. Canada reported three such sentences, the longest being for one year. Other individual defendants were required to perform community service for a specified period. The U.S. has been the most active in imposing imprisonment for cartel conduct. In fiscal year 1999, 28 individuals received such sentences; in

2000, 18. The average length of those terms of imprisonment was approximately 8 months in 1999 and 10 months in 2000. Again, in recent cases some longer terms have been imposed. In the lysine case three individuals were sentenced to terms of 36, 34 and 30 months, respectively. In the New York food bid rigging case noted above, the individual who was required to pay restitution of USD 4.2 million and fined 1 million was also sentenced to imprisonment for four years, the longest such penalty yet imposed in a cartel case.<sup>9</sup>

#### *Reviews of sanctions in other countries*

33. It is clear from the discussion above that countries are at different places in their treatment of cartels. There is substantial variation across countries in the number of prosecutions and in the sanctions applied to them. Several countries have just completed or are in the process of reviewing their laws and policies relating to cartels, however, with a view toward increasing their enforcement efforts in this area. These include Denmark (a new competition law in 1998), France (an amended competition law in 2001), Ireland (a new emphasis on cartels as the top enforcement priority), the Netherlands (a new competition law in 1998, new guidelines for the setting of fines in 2002 and ongoing work on a leniency programme), New Zealand (a recently completed study of optimal sanctions, discussed below, and amendments to the competition law in 2001), Norway (a recently completed study of optimal sanctions, discussed below), Sweden (a proposal to criminalise cartel conduct), Switzerland (a proposal for fines for substantive violations of the competition law) and the United Kingdom (a new competition law that took effect in 2000 and an aggressive anti-cartel programme). Among non-Member observer countries to the Competition Committee, Brazil and Israel have implemented new anti-cartel programmes recently.

#### Conclusion

34. The competition laws of OECD countries provide for a wide range of sanctions against cartel participants, and by their terms they permit the imposition of heavy penalties. There is a clear trend in several countries toward stronger sanctions in cartel cases, and other countries are reviewing their laws and policies to provide for enhanced sanctions against cartels. Whether even the recent, more severe penalties are sufficient to deter future cartels is an open question, however, which is discussed further below.

#### **IV. Optimal sanctions**

35. The principal purpose of sanctions in cartel cases is deterrence. The decision to form or join a cartel is primarily a financial one – cartels can rapidly and substantially improve their participants' profitability.<sup>10</sup> An effective deterrent, therefore, is one that promises, on average, to take away the financial gains that otherwise would accrue to the cartel members. Sanctions have another, related purpose in the cartel context – that of providing an incentive for cartel participants to defect from the secret agreement and provide information to the investigators.<sup>11</sup> The "carrot and stick" approach to cartel investigation requires that the "stick" – the possible sanction – be sufficiently severe to give effect to the "carrot" – the opportunity to avoid the sanction by co-operating. Thus, for both deterrence and co-operation purposes the potential sanction must be substantial if it is to be effective.<sup>12</sup> The following discussion will focus on the deterrent value of sanctions, as sanctions that are severe enough to be an effective deterrent will also provide the necessary stimulus to co-operate.

## Fines against enterprises

### *In theory*

36. As noted above, both New Zealand and Norway have studied this subject recently, and both came to similar conclusions.<sup>13</sup> These studies agree with the generally accepted wisdom that an effective sanction takes into account both the expected gains from the cartel and the probability that the cartel will be detected and punished.

Firms will tend to discount the expected costs of penalties or remedies by some factor that represents their view on the likelihood of detection and punishment. . . . As detection and punishment are not perfect, effective deterrence requires penalties (or remedies) to be greater than the expected benefit from the illegal activity to compensate for imperfect detection and prosecution.<sup>14</sup>

The most important principle for levying fines is that expected loss from violating the law should exceed the gain.<sup>15</sup>

To what extent the financial punishment should exceed the gain is much less clear. If, for example, only one in three cartels is detected and punished, then the monetary penalties for those that are prosecuted should be at least three times the expected gains if there is to be effective deterrence. It would be quite difficult to estimate the probability of detection of cartels, however, which in any event probably varies from country to country. One study based on a sample of cases from the United States during the period 1961 to 1988 estimated the probability of detection and punishment as between 13% and 17%, or between one in six and one in seven.<sup>16</sup> The U.S. authorities have developed more effective investigation methods since 1988, of course, notably an enhanced leniency programme, which presumably have improved the detection rate in that country. The detection rate in some other countries, however, is probably lower than in the U.S.

37. In any case, determining the multiplier to be applied to the gain is not the only problem in applying this equation. Quantifying the gain is itself difficult, as discussed above. Both Norway and New Zealand confronted this issue in their studies of optimal sanctions. Norway focused on simplifying the methodology for calculating gain from the cartel conduct. In its simplest form the calculation can be: cartel price minus the competitive price, or “reference price,” multiplied by the turnover (in units) affected by the cartel agreement. Norway proposes that the reference price be determined by “benchmarking,” using data from related, presumably competitive, markets.

38. New Zealand would focus equally on measuring the illegal gain and exceeding it by some amount to take into account a probability of detection of less than one, but it recognises the difficulties with calculating the gain, and proposes that a “proxy” for gain be available where necessary. The New Zealand study examined some alternative forms of sentences employed in other countries, as described above, including those that: 1) have a specific maximum stated in national currency, 2) are stated in terms of percentage of annual turnover, 3) are stated in terms of multiples of illegal gain, or 4) employ a combination of these measures. The study proposed

. . . that penalties be allowed to be imposed of up to three times the illegal gain, or 10% of annual turnover (i.e. the Swiss model).<sup>17</sup> The Swiss model is preferred as it has the advantage that it sends a signal to the courts that penalties should be punitive by using a multiple of the illegal gain. The model then acknowledges the difficulty of calculating illegal gain by providing a proxy – the percentage of turnover.<sup>18</sup>

In 2001 the law was amended according to this recommendation, combining three measures: the greater of NZD 10 million, three times the illegal gain or, if the gain is not known, 10% of the turnover of the body corporate.

39. In recent years some large, high-profile international cartels that affected many countries have been discovered and prosecuted. Designing effective sanctions against these agreements presents special issues. Theoretically, unless a multinational cartel participant is prosecuted and fined in most or all of the countries in which the cartel had effects, the cartel still might have been profitable after paying fines in only some of the countries affected. This problem can be addressed, of course, through enhanced international co-operation in investigating and prosecuting these agreements. Further, the laws of several countries permit, sometimes explicitly, fines to be assessed on the basis of world-wide turnover. Thus, the cumulative effect of fines in these countries could account for non-prosecution in other countries. Of course, there is also a possibility of double counting if foreign turnover is taken into account in more than one country. That concern may be more theoretical than real, however, especially since some national laws permit basing fines on only one year's turnover.<sup>19</sup>

*In practice*

40. There are two issues affecting the adequacy of fines as a deterrent: whether a country's competition law permits fines that are sufficiently large to achieve the desired effect; and whether, if the laws are adequate, the fines actually imposed by the competition agency (and courts, where applicable) are large enough.

41. Assuming that an optimal sentence is best expressed as a multiple of the unlawful gain, the laws of only three countries, Germany, New Zealand and the United States, are written in that fashion – three times the gain in Germany and New Zealand and in the United States two times the gain realised by the entire cartel (not just the defendant). Other countries employ either a specified maximum amount or a percentage of annual turnover, or a combination of the two. Whether these measures are sufficiently large in any given country is difficult to determine in the abstract. Presumably the harm from a cartel – and therefore the optimal sentence – will vary according to the size of an economy.

42. One benchmark might be the new law in New Zealand. That country's economy is relatively small, on the global scale, and it has recently completed an in-depth review of optimal sanctions against cartels. As noted above, its new law provides for organisational fines of the larger of three times the unlawful gain, NZD 10,000,000 or 10% of the total turnover of the enterprise. Ten million NZD is equivalent to approximately EUR 4.8 million. Fifteen countries listed in Appendix B other than New Zealand express maximum fines at least in part in absolute terms. In 11 of the 15, the maximum amount is less than New Zealand's. Most of these countries, however, provide alternative maximums in terms of percentages of the annual turnover of the offending organisation. Maximum fines under this standard are potentially much larger. For example, the European Commission has imposed some very large fines (see Appendix A) under its maximum of 10% of the offender's annual global turnover. In a few countries, however, the relevant turnover is defined more narrowly, such as turnover affected by the cartel, or turnover within the prosecuting country. These limits would result in much smaller maximum fines.<sup>20</sup>

43. In sum, if it is concluded that an optimal organisational fine is one that is at least three times the unlawful gain to the respondent, it is difficult to determine in the abstract if the maximum fines in the laws of most countries are sufficiently large, as most of the maximums are not expressed in terms of unlawful gain. It is likely that in some cases, however, existing laws would not permit the imposition of optimally large fines against organisations.

44. In any case, the limited data that are available indicate that countries are not yet assessing fines that approach optimal levels. Annex A summarises 38 of the 119 cases reported in the OECD survey. On balance these are the larger ones, in terms of affected commerce and size of sanctions. It was possible to express pecuniary sanctions as a percentage of affected commerce in only 10 of these cases because, as discussed above, available data did not permit making even rough estimates of this relationship in most cases. In these 10 cases there was substantial variation in sanctions as a percentage of harm, ranging from 3% to 189%. Interestingly, four were above 100%, two from the U.S., one from Canada and one from Germany, though none was as large as twice the gain, when the prevailing wisdom seems to be that the multiple should be at least two or three.

45. The U.S. has had the most experience with fines nominally expressed as a multiple of the unlawful gain. U.S. law, it will be recalled, provides that the maximum corporate fine for cartel conduct is the larger of USD 10 million or twice the gain to the entire cartel or loss to the victims from the conduct. As of September 2001 U.S. courts had imposed more than 30 fines larger than USD 10 million in cartel cases.<sup>21</sup> They had also imposed at least five fines upon individuals in excess of the statutory maximum of USD 350,000. These fines in excess of 10 million and 350,000 were assessed, at least implicitly, under the “twice the gain or loss” formula. In fact, however, none of them was based on a finding by a court of gain or loss; all were resolved by a plea agreement. There are strong incentives in the U.S. system for both the government and the defendant to avoid litigation on the gain or loss issue.<sup>22</sup> U.S. officials state that they do make estimates of gain or loss in the process of applying the statutory formula internally<sup>23</sup>, but their calculations usually are not publicly disclosed and have not been tested in court.

#### Compensatory damages for victims

46. As noted above, the laws of several OECD countries, but fewer than half, provide for recovery of compensatory damages by cartel victims. Such damages are properly considered as a component of pecuniary sanctions to which cartel participants are exposed. While the possibility for recovery of damages exists in several countries, it is seldom invoked, however. Civil damage cases are not common in most countries, save again the U.S., which has its well-known treble damage liability in antitrust cases. A detailed analysis of the U.S. treble damage policy is beyond the scope of this report, and in any event there is disagreement both within and without that country about the utility of various aspects of it. It is without doubt an important component of the financial deterrent to cartel conduct under U.S. law, however.<sup>24</sup>

47. New Zealand studied the issue of strengthening incentives for private damage actions as a part of its review of sanctions.<sup>25</sup> The report stated:

Private enforcement of the Commerce Act 1986 is a necessary corollary to public enforcement in achieving an optimal deterrence to would be offenders. However, the Act currently provides insufficient incentives for market participants to engage in private litigation under the Act.<sup>26</sup>

It concluded that merely providing for the recovery of compensatory damages would not provide sufficient incentives for private enforcement in the New Zealand system. The report considered both treble damages and exemplary (punitive) damages as additional incentives, and settled on the latter, concluding that they are likely to provide more accurate signals and to offer greater fairness.<sup>27</sup>

## Sanctions against natural persons

### *In Theory*

48. In theory it is possible to fashion a sufficient deterrent simply through financial sanctions against the enterprise, but there are practical difficulties with such a regime. As discussed above, sufficient information on which to calculate the penalty (including the amount of the cartel gain and the multiple to be applied to it to account for the probability of detection and punishment) is usually lacking. But further, the optimal fine may be too large for the enterprise to bear; if imposed it could cause it to exit the market, one adverse result of which, of course, would be to diminish competition. The result in most cases of this kind would be the imposition of a less than optimal fine. Thus, a case can be made for providing for additional sanctions against individuals who engage in cartel conduct.<sup>28</sup>

49. This was the conclusion in a recent report to Parliament by the United Kingdom Department of Trade and Industry.<sup>29</sup> The report concluded that it would not be feasible to impose optimal fines on organisations if one assumes that the proper multiple to be applied to the cartel gain to arrive at the optimal fine is as high as six. To address the problem the report recommended creating a new criminal offence for individuals who participate in hard core cartels. The crime would be punishable only by imprisonment (“custodial sentence”). The report recommended against individual fines as punishment, given the risk, apparently unavoidable, of the employer paying the fines for its employees.

50. New Zealand studied this issue in its review of appropriate sanctions. Current New Zealand law provides for civil fines of individuals of up to NZD 500,000 (approximately EUR 236,000) for cartel conduct. The report concluded that this level of fine was sufficiently large, but noted that the sanction had been little used. The report recommended certain options for increasing the imposition of fines against individuals, including signalling to the courts that there is a greater need to impose such penalties and forbidding an employer from indemnifying the individual for any such fines imposed.<sup>30</sup>

51. Sanctions against individuals have another beneficial effect. They provide an incentive for individuals to offer co-operation in cartel investigations, against the interest of their employer. Thus, individual sanctions can enhance the effectiveness of leniency and “whistleblower” programmes. There is an offsetting consideration relating to individual sanctions, however. In many countries, sanctioning individuals requires criminalisation of the conduct. In that context individuals have rights against self-incrimination, which makes it more difficult to obtain evidence from them unless they willingly co-operate. In this sense, criminalisation of cartel conduct for individuals makes voluntary co-operation more possible, because of the threat of personal sanctions, but also makes it more necessary, because a right against self-incrimination attaches.

### *In practice*

52. As noted above, while the laws of as many as thirteen OECD countries provide for the imposition of fines against individuals and seven provide for imprisonment for cartel conduct, only four have actually fined individuals in recent years and in only two have sentences of imprisonment been imposed. Thus, few countries are currently employing this potentially important, additional sanction.

## **Conclusions**

53. Accurate quantification of the harm from hard core cartels is not currently possible, for several reasons, but there is no doubt that it very large, amounting to the equivalent of many billions of U.S.

dollars annually. OECD countries are increasingly aware of the magnitude of the problem, and of the need to impose severe sanctions on cartel participants so as to deter such conduct. Sanctions in recent cases in some countries reflect this growing awareness. Fines against enterprises above the equivalent of USD 1 million are no longer uncommon in some countries. Sanctions against individuals have also dramatically increased in a few countries, where such sanctions are legally possible. Still other countries have recently undertaken a review of their sanctions policy, with a view toward increasing penalties for cartel conduct. The trend toward more rigorous sanctions in cartel cases is uneven – in some countries sanctions continue to be minimal – but it is unmistakable.

54. A related question has to do with what level of sanctions is sufficient to provide the necessary deterrent to would-be cartel operators. This question also is difficult to answer accurately. Without doubt the sanctions should be severe. Many experts hold the view that the gross amount of financial sanctions should be greater than the gain to the cartel, to account for the fact that not all cartels are discovered and punished. Multiples of two or three times the cartel gain are most often advanced for this purpose, but studies supporting larger multiples exist. Sanctions can be imposed in any of three ways: as fines or forfeitures upon the offending enterprises; as fines, and in a few countries, imprisonment, imposed on natural persons who participate in the cartel; and as compensatory and, possibly, punitive damages awarded to the victims of the cartel. Sanctions against natural persons and civil damages are currently employed in only a few countries, but these alternative methods can provide an important supplement to organisational fines.

55. In any case, while there is a noticeable trend toward more rigorous sanctions in cartel cases, available data indicate that sanctions against enterprises and natural persons have not yet reached the optimal level for deterrence.

NOTES

<sup>1</sup> *Id.* at 13.

<sup>2</sup> *Id.* at 19-20.

<sup>3</sup> Cartel operators desire to maximise profits, of course, which means that each firm has incentives to control costs even in the cartel environment, but the agreement lessens external pressures to do so.

<sup>4</sup> This methodology does not take into account other relevant factors, such as changes in unit costs resulting from the cartel and possible lost “profits” resulting from a reduction in unit sales caused by the higher cartel price.

<sup>5</sup> New Zealand and Norway have recently undertaken ambitious studies of sanctions under their competition laws. Both deal in greater detail than this paper with these issues of identifying and quantifying harm to consumers and gain to producers resulting from cartels. Both also contain excellent analyses of the topic of optimal sanctions, which is discussed below. “Review of the Penalties, Remedies and Court Processes under the Commerce Act,” Office of the Minister for Enterprise and Commerce, New Zealand, 1998; “Sanctioning Pursuant to the Norwegian Competition Act,” Norwegian Competition Authority, 2001.

<sup>6</sup> Argentina, Bulgaria, Chile, China, Chinese Taipei, Egypt, Estonia, India, Indonesia, Kenya, Latvia, Romania, Slovenia, South Africa, Thailand, Ukraine, Venezuela and Zambia.

<sup>7</sup> United States Sentencing Guidelines, §2R1.1 cmt. n. 3.

<sup>8</sup> *See*, Klawiter, “After the Deluge: The Powerful Effect of Substantial Criminal Fines, Imprisonment and Other Penalties in the Age of International Cartels,” Remarks before the George Washington Law Review Symposium, 2001, at 17.

<sup>9</sup> The maximum sentence for a single violation is three years, but this person was also convicted of other crimes that were related to and arose out of his cartel conduct.

<sup>10</sup> There are ancillary benefits to the cartel participants as well. Cartels offer the “quiet life,” or perhaps more accurately a “less stressful life,” to their members – a respite from the full rigours and uncertainties of a competitive marketplace.

<sup>11</sup> *See generally*, Report on Leniency Programmes to Fight Hard Core Cartels, OECD Competition Committee, 2001.

<sup>12</sup> Sanctions are not the only deterrent to cartel conduct, of course. The probability of detection is a related and important element. Detection can be enhanced in a variety of ways, including the provision of adequate investigation tools, an effective amnesty programme and, in the context of international cartels, effective international co-operation among national competition agencies.

<sup>13</sup> *See* note 4 above.

<sup>14</sup> New Zealand, “Overview Paper” at paras. 28-29.

<sup>15</sup> Norway, Summary of the Committee’s Report.

<sup>16</sup> P.G. Bryant and E.W. Eckhard (1991): Price Fixing: The Probability of Getting Caught,” *Review of Economics and Statistics* 531.

17 In fact, as noted above, Switzerland has no direct sanctions for cartel conduct at present. Those fines can be imposed for failure to adhere to a decision of the Competition Commission or a voluntary settlement. An amendment providing for direct sanctions has been proposed.

18 New Zealand, “Paper 2 – Reforming Penalties and Offences” para. 16.

19 The European Commission, for example, can impose a fine of up to 10% of an enterprise’s world-wide turnover in the preceding business year. Regulation 17/62, Article 15(2). The United States Sentencing Guidelines require calculation of fines in antitrust cases on the basis of “affected commerce,” the definition of which is not limited to turnover in the U.S. United States Sentencing Guidelines, §2R1.1(d)(1). The U.S. Department of Justice takes the position that it can consider foreign turnover in its fine calculations. See, Spratling, “Are the Recent Titanic Fines in Antitrust Cases Just the Tip of the Iceberg?,” remarks before the Twelfth Annual National Institute on White Collar Crime (1998), available at <http://www.usdoj.gov/atr/public/speeches/1583.htm>.

20 One writer has concluded that even a maximum of 10% of total turnover is likely not to be large enough in many cases. Assuming a gain to the cartel of 5% of the selling price (low, by most estimates), a duration of the cartel of five years and a 16% probability of detection, the optimal fine would be approximately 150% of the annual selling price of the cartelised product. In this hypothetical, only in the case in which the turnover of the cartelised product amounts to less than one fifteenth of the enterprise’s total turnover would 10% of total turnover be sufficiently large. Wouter P.J. Wils, “Does the effective enforcement of Articles 81 and 82 EC require not only fines on undertakings but also individual penalties, in particular imprisonment?,” at 11-14, presented to Sixth EC Competition Law and Policy Workshop at the European University Institute (Florence, 1-2 June 2001), available at [http://www.iue.it/RSC/competition2001\(papers\).html](http://www.iue.it/RSC/competition2001(papers).html) and forthcoming in C.D. Ehlermann (ed.), *European Competition Law Annual 2001 : Effective Private Enforcement of EC Antitrust Law* (Hart Publishing 2002) and in W.P.J. Wils, *The Optimal Enforcement of EC Antitrust Law : Essays in Law and Economics* (Kluwer Law International 2002).

21 For data on these fines through March 2001, see, Griffin, “Status Report: Criminal Fines, International Cartel Enforcement, Corporate Leniency Program,” remarks before the American Bar Association Section of Antitrust Law, 49th Annual Spring Meeting, March 28, 2001, available at <http://www.usdoj.gov/atr/public/speeches/8063.htm>.

22 See, Klawiter, note 7.

23 See, Spratling, “The Trend Towards Higher Corporate Fines: It’s a Whole New Ball Game,” remarks before the Eleventh Annual National Institute on White Collar Crime, New Orleans, Louisiana, March 7, 1997.

24 Damage recoveries in private litigation resulting from the vitamins cartel, for example, have amounted to approximately USD 1 billion, and some aspects of the litigation are continuing. Private recoveries in the lysine litigation amounted to USD 45 million. There continues to be debate, however, about whether such recoveries are, on the one hand, still too small to provide an adequate deterrent, or on the other, excessively punitive. Compare, Adams, Colón and Busman, “License to Steal – The Benefits of Cartel Activity Still Outweigh the Costs,” presented at the American Bar Association Section of Antitrust Law 49<sup>th</sup> Annual Spring Meeting, March 29, 2001, with Denger and Arp, “Does our Multifaceted Enforcement System Promote Sound Competition Policy?” *Antitrust Magazine*, summer 2001, 41-46.

25 New Zealand, “Paper 3- Reforming Remedies.”

26 *Id.* at para. 1.

27 The 2001 amendments to the competition law added the remedy of exemplary damages in private cases.

28 See Wils, *supra*.

<sup>29</sup> Department of Trade and Industry, "A World Class Competition Regime," July 2001, 37-45.

<sup>30</sup> The 2001 amendments to the competition law left the maximum fine for individuals unchanged but provided that a court must impose a fine on an individual adjudged to have engaged in a cartel unless there are good reasons not to.

## Annex A

**SELECTED CARTEL CASES**  
**AFFECTED COMMERCE, ESTIMATED HARM AND SANCTIONS APPLIED**

(Monetary amounts stated in local currency – euros in eurozone countries)

Country	Case	Affected Commerce	Estimated Harm	Sanctions (including damages to private parties, where applicable)	Fines as of affected commerce	Fines as of estimated harm
Australia	Distribution Transformers	320,505,000	NA	1.5 million (case continuing)	NA	NA
Australia	Power transformers	40 million	NA	5.5 million (case continuing)	NA	NA
Australia	Vitamins	NA	NA	26 million	NA	NA
Australia	Frozen foods, Tasmania	NA	10 – 12% price increase	1.245 million	NA	NA
Australia	Installation of fire protection devices	More than 500 million	5-15% price increase	15.386 million	3%	31%
Canada	Snow removal	16 million	Up to 20%	4.048 million	25%	127%
Canada	Lysine	NA	NA	3.573 million	NA	NA
Canada	Citric acid	NA	NA	11.5 million	NA	NA
Canada	Sorbates	NA	NA	25.3 million	NA	NA
Canada	Vitamins	706.35 million	NA	91.395million (case continuing)	13%	NA
Denmark	Electric wiring services	NA (many billions over “several decades”)	20-30%	(Case continuing)	NA	NA
European Commission	Graphite electrodes	More than 2 billion	Up to 50%	218.8 million	11%	22%
European Commission	Lysine	NA	NA	110 million	NA	NA
European Commission	British sugar	NA	NA	50.2 million	NA	NA
European Commission	Pre-insulated pipe	More than 2 billion	NA	92.210 million	5%	
European Commission	Vitamins	NA	NA	855.22 million	NA	NA
Finland	Purchases of raw wood	NA	NA	30 million	NA	NA

Country	Case	Affected Commerce	Estimated Harm	Sanctions (including damages to private parties, where applicable)	Fines as of affected commerce	Fines as of estimated harm
Germany	Ready-mix concrete	1,406 million (OECD estimate)	112 million (8% of affected commerce)	153 million	12%	136%
Germany	Road markings	More than 358 million (OECD estimate)	“Hundreds of millions” (more than 14% of affected commerce – OECD estimate)	13.1 million	3%	NA
Germany	Power cables	Many billions	Up to 50%	127.6 million	NA	NA
Japan	Ductile iron pipe	NA	NA	11.1 billion surcharges, 230 million criminal fines	6%	NA
Korea	Military fuel	USD 548.3 million	NA	USD 14.6 million	3%	NA
Mexico	Lysine	NA	NA	1.699 million	NA	NA
Norway	Hydro-electric power equipment	1.6 billion	140 million (9% of affected commerce)	75 million	5%	54%
Slovak Republic	Flour	NA	200-300/ton	2.24 million	NA	NA
Slovak Republic	Beer	4 billion	NA	.1 million	Less than 1%	NA
Spain	Hotel association	6 billion	180 million (3% of affected commerce)	6,600	Less than 1%	Less than %
Spain	Sugar	1.1 billion	25.2 million (2% of affected commerce)	8.7 million	Less than 1%	35%
Switzerland	German language books	Many billions	NA	Fines not currently possible; amendment proposed	NA	NA
Switzerland	Drug distribution, industry-wide	NA	NA	Id.	NA	NA

Country	Case	Affected Commerce	Estimated Harm	Sanctions (including damages to private parties, where applicable)	Fines as of Est. om-erce	Fines as of stimated arm
United States	Lysine	1.4 billion world-wide	78 million in U.S.	147.48 million; imprisonment for three executives	NA	189%
United States	Citric acid	4.8 billion world-wide, 320 million U.S.	100 million in U.S. (31% of affected commerce)	141.89 million	44%	142%
United States	Graphite electrodes	6 billion world-wide, 1.7 billion U.S.	As much as 65%	410 million; imprisonment for two executives	24%	NA
United States	Cairo wastewater construction	300 million U.S.	100 million (33% of affected commerce)	87.7 million;	29%	88%
United States	Marine construction	1 billion world-wide, 107 million U.S.	NA	49.3 million; confinement for one executive	46%	NA
United States	Sodium Gluconate	NA	NA	32.95 million	NA	NA
United States	Sorbates	2.2 billion world-wide, 1 billion U.S.	NA	123.2 million	12%	NA
United States	Vitamins	Up to 33 billion world-wide	NA	1 billion in fines, 1 billion in damages; imprisonment for eight executives	NA	NA

*Annex B***AVAILABLE SANCTIONS FOR HARD CORE CARTELS**

<b>Country</b>	<b>Sanctions</b>
<b>Australia</b>	<ul style="list-style-type: none"> <li>• Pecuniary penalty (non-criminal) of AUD 10 million for corporations (AUD 750,000 for a secondary boycott offence) and AUD 500,000 for individuals, per offence.</li> <li>• Injunctions.</li> <li>• Damages (may only be sought through private action in a Court by a person who has suffered loss as a result of a contravention).</li> <li>• Ancillary orders of various kinds in favour of persons who have suffered loss or damage because of the conduct (including specific performance and rescission and variation of contracts).</li> </ul>
<b>Canada</b>	<ul style="list-style-type: none"> <li>• Fine up to CAD 10 million per count, imprisonment for up to five years per count, or both. For “foreign directed conspiracies,” fines in the discretion of a court. For bid rigging, fines in the discretion of a court, imprisonment of up to five years, or both.</li> <li>• Damages</li> </ul>
<b>Czech Republic</b>	<ul style="list-style-type: none"> <li>• Fine up to CSK10million or up to 10 percent of the net turnover recorded over the last complete calendar year.</li> </ul>
<b>Denmark</b>	<ul style="list-style-type: none"> <li>• Fine, must be imposed by a Court, but the law does not provide for a maximum.</li> <li>• Administrative order of annulment.</li> <li>• Civil damages.</li> </ul>
<b>European Union</b>	<ul style="list-style-type: none"> <li>• Administrative fine imposed on enterprises only of up to 10 percent of previous year’s global turnover.</li> </ul>
<b>Finland</b>	<ul style="list-style-type: none"> <li>• Penalty payment (competition infringement fine) of EUR 841 to EUR 672,752; the fine may be higher, but no more than 10 percent of the previous year’s turnover.</li> <li>• Agreements violating the law are void.</li> <li>• Civil damages.</li> </ul>
<b>France</b>	<p>Pecuniary sanctions up to 10 percent of world-wide turnover.</p> <ul style="list-style-type: none"> <li>• Criminal sanctions (individuals only): fines up to EUR 1, 524,490.</li> </ul>
<b>Germany</b>	<ul style="list-style-type: none"> <li>• Wilful or negligent violations: administrative fine up to EUR 511,292 or up to three times the additional profit obtained as a result of the violation.</li> <li>• Collusive tendering: a crime, punishable by fines of up to EUR 1,840,651 or up to five years imprisonment, or both.</li> <li>• Agreements violating the law are void.</li> <li>• Civil damages.</li> </ul>
<b>Hungary</b>	<ul style="list-style-type: none"> <li>• Fine of up to 10 percent of undertaking’s net turnover in previous year.</li> <li>• Termination order; injunction.</li> </ul>
<b>Ireland</b>	<ul style="list-style-type: none"> <li>• Criminal conviction: fine of up to EUR 3,809,214 or 10 percent of previous year’s turnover, whichever is greater (undertaking); same level of fine plus imprisonment for up to 2 years (individual).</li> <li>• Civil declaratory and injunctive relief.</li> <li>• Civil damages, including exemplary damages.</li> </ul>

Country	Sanctions
<b>Italy</b>	<ul style="list-style-type: none"> <li>• Fine, up to 10 percent of the turnover of each undertaking or entity during the prior financial year.</li> </ul>
<b>Japan</b>	<ul style="list-style-type: none"> <li>• Administrative surcharge upon entrepreneurs, up to 6 percent of the cumulative sales of the goods and services subject to the cartel for the duration of the agreement, except if the duration exceeds three years, the period for three years retroactive from the date on which the conduct ceased.</li> <li>• Criminal fine up to JPY 100 million (entrepreneur);imprisonment up to three years or fine up to JPY 5million (persons).</li> <li>• Damages may be sought through private action in a court by a person, a firm, or government agency that has suffered loss as a result of a contravention either under civil law or the Antimonopoly Act; under the AMA, a private suit may follow a decision by the JFTC finding a defendant to have violated the Act, and its decision becomes prima facie evidence of a violation in the private suit.</li> </ul>
<b>Korea</b>	<ul style="list-style-type: none"> <li>• Surcharge up to 5 percent of the turnover set forth in the Presidential Decree; where there is no revenue, up to KRW1billion.</li> <li>• Criminal violation: imprisonment up to three years or fine up to KRW200million.</li> <li>• Order to cease and desist, a public announcement of the violation by the enterprise, or any other necessary corrective measure. Failure to comply with the corrective measure is punishable by imprisonment up to two years or a fine up to KRW150million.</li> </ul>
<b>Mexico</b>	<p>Fine for enterprises up to 375,000 times the minimum general wage prevailing in the Federal District; for individuals, fine up to 7,500 times the minimum general wage prevailing in the Federal District.</p> <ul style="list-style-type: none"> <li>• Criminal prosecution for conduct that violates the Criminal Code.</li> <li>• Order the suspension, rectification or elimination of the practice.</li> </ul>
<b>Netherlands</b>	<ul style="list-style-type: none"> <li>• Administrative fine on enterprises not to exceed the higher of EUR 450,000 or 10% of the turnover of the undertaking or, if the infringement is committed by an association of undertakings, of the combined turnover of the undertakings that are members of the association, in the financial year preceding that in which the fine is imposed.</li> </ul>
<b>New Zealand</b>	<ul style="list-style-type: none"> <li>• Pecuniary penalties for bodies corporate of up to the greater of: NZD 10,00,000, three times the illegal gain or if the gain is not known, 10% of annual turnover; for individuals, up to NZD 500,000.</li> <li>• Injunctions and remedial orders.</li> <li>• Civil damages, including exemplary (punitive) damages.</li> </ul>
<b>Norway</b>	<ul style="list-style-type: none"> <li>• Criminal sanctions (for individuals): fines and imprisonment up to six years.</li> <li>• Writ to relinquish cartel gains. Under the Criminal Code (Section 34) a Court can also order confiscation of the cartel gains.</li> <li>• Injunctions.</li> </ul>

Country	Sanctions
<b>Poland</b>	<ul style="list-style-type: none"> <li>• Order to relinquish practices violating the law.</li> <li>• Impose a fine equivalent to the amount of EUR 1,000 to 5,000,000 but not exceeding 10 % of the annual revenue of the undertaking in question in the year preceding the year of imposition of the fine; where there is no revenue (such as for trade associations), fine up to 50 times the average salary.</li> </ul>
<b>Slovak Republic</b>	<ul style="list-style-type: none"> <li>• Fine up to SKK 10 million or 10% of total turnover in previous year.</li> <li>• Criminal fines and imprisonment up to five years.</li> </ul>
<b>Spain</b>	<ul style="list-style-type: none"> <li>• Fine up to EUR 901,518 (economic agents, companies, associations, unions or groups); can be increased up to 10 percent of total sales for the fiscal year preceding the Tribunal's decision.</li> <li>• Coercive fines of between EUR 60 and 3,006 per day to require cessation of unlawful conduct or adherence to remedial orders.</li> <li>• If the offending party is a legal entity, then an additional fine up to ESP 5 million imposed on the legal representative or the persons constituting the administrative bodies that participated in the agreement.</li> <li>• Injunctions and remedial orders.</li> <li>• Compensation of damages in a civil action.</li> </ul>
<b>Sweden</b>	<ul style="list-style-type: none"> <li>• Intentional or negligent infringement by an undertaking, fine up to 10 percent of the annual turnover of the undertaking.</li> <li>• Injunctions and remedial orders.</li> <li>• Remedies in civil law, including damages to private parties.</li> </ul>
<b>Switzerland</b>	<ul style="list-style-type: none"> <li>• Injunctions. Currently there are no fines directly for violating the competition law. Amendment providing such sanctions is under consideration.</li> <li>• Administrative fines (for legal entities) of up to three times the illegal gain or up to 10 percent of the previous year's turnover realised in Switzerland for failure to comply with a decision of the Competition Commission or a voluntary agreement.</li> <li>• Remedies in civil law: a) removal or cessation of the restriction; b) damages and reparations; c) remittance of illicitly earned profits.</li> </ul>
<b>Turkey</b>	<ul style="list-style-type: none"> <li>• Fines at least TRL 200million (undertakings and associations of undertakings) and up to 10 percent of the gross income in the prior fiscal year, as calculated by the Board (individuals or legal entities with the status of an enterprise and associations of undertakings and/or the members of those associations)</li> <li>• In cases where the above fines are imposed on a legal entity (undertakings and associations of undertakings), a fine up to 10 percent of that fine is imposed on the individuals personally who are in the management organs of these legal entities.</li> </ul>
<b>United Kingdom</b>	<ul style="list-style-type: none"> <li>• Fines up to 10 percent of UK turnover (undertakings) for the duration of the infringement, up to a maximum of three years.</li> <li>• Civil liability for damages.</li> </ul>
<b>United States</b>	<ul style="list-style-type: none"> <li>• Criminal violations: fines up to the larger of (a) USD10 million (corporations) and USD350,000 (others), or (b) twice the amount gained by the cartel from the violation or lost by the victims, and imprisonment up to three years.</li> <li>• Private parties can make claims in court for injunctions, three times the damages suffered and reasonable attorney's fees.</li> <li>• Restitution (generally where private damage case not available).</li> </ul>

*Annex C***SUMMARY OF SUBMISSIONS ON CARTEL ENFORCEMENT BY NON-MEMBER INVITEES  
TO THE OECD GLOBAL FORUM ON COMPETITION****Bulgaria**

Described three cases: price fixing in public transportation services in Sofia; price fixing in phone cards; market allocation in gasification services. The respondents were fined the equivalent of EUR 47,000, 9,000 and 25,500, respectively. Maximum fines for cartel conduct under Bulgarian law are EUR 150 million for organisations and EUR for individuals.

**China**

Described three cases: bid rigging on tenders to operate a brickyard plant and two bid rigging cases on construction contracts. In one case the respondents were fined the equivalent of EUR 6,500. The maximum fine under the 1993 China Law for Countering Unfair Competition is the equivalent of EUR 26,000.

**Estonia**

Described three cases: information exchange on prices among milk processors and wholesalers; price fixing in taxi services; price fixing in road transport. Fines equivalent to EUR 639 were imposed on each respondent in the taxi case. Maximum fines of to 5% of the net turnover of the offending party in the preceding year can be imposed for cartel conduct.

**Indonesia**

Described one case, the first brought in Indonesia: bid rigging in the supply of pipe and pipe processing services. No fines were imposed. Fines of up to the equivalent of EUR 2.875 million can be imposed for civil violations. Fines of up to EUR 11.5 million and prison terms of up to six months can be imposed for criminal violations.

**Latvia**

Described two cases: price fixing between a Latvian and a Russian airline on service between Riga and Moscow; agreement on contractual terms between providers of international courier post services. A fine of 0.7% of the annual turnover of the Latvian airline in the air transportation case was imposed in that case. No fines were imposed in the courier services case. A maximum fine of 10% of the respondent's total annual turnover can be imposed for cartel conduct.

**Peru**

Described three cases: price fixing and information exchange in the sale of live chickens; bid rigging on construction of electricity transmission facilities; price fixing in taxi tours. Fines of the

equivalent of EUR 1,800 were imposed on each respondent in the bid rigging case and of EUR 900 on one respondent in the taxi tours case. Maximum fines for cartel conduct are the smaller of the equivalent of EUR 900,000 or 10% of the respondent's gross sales or income.

### **Romania**

Described two cases: price fixing in bottled mineral water; market allocation in the distribution of pharmaceuticals. Unspecified fines were imposed in both cases. Maximum fines for cartel conduct are 10% of the respondent's annual turnover.

### **Slovenia**

Described two cases: price fixing in the sale of electric energy; and market allocation in the production of cultural events. Maximum fines for cartel activity are the equivalent of EUR 135,000 for enterprises and EUR 13,500 for individuals.

### **South Africa**

Described one case: fixing of contractual terms for the purchase of citrus fruits. The maximum fine for cartel conduct is 10% of the respondent's annual turnover.

### **Chinese Taipei**

Described three cases: market allocation by a flour association in the purchase of grain; bid rigging on a contract for the purchase of mobile cranes; price fixing and market allocation in liquefied petroleum gas. The maximum penalty for cartel conduct is fines of up to the equivalent of EUR 3.1 million and imprisonment of up to three years.

### **Thailand**

Maximum penalties of fines of up to the equivalent of EUR 144,000 and imprisonment of up to three years.

### **Ukraine**

Described two cases: price fixing in the provision of services for electronic cash machines; market allocation in the sale of kaolin. Sanctions not specified.

### **Zambia**

Described two cases: conspiracy between producer and purchaser of live poultry preventing entry of new sellers; price fixing in refined petroleum products. Maximum fines for cartel conduct of the equivalent of EUR 5,220, and for criminal violations, imprisonment for up to five years.