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*Department of Foreign Affairs  
and International Trade*

**POLICY STAFF PAPER**

**NO. 94/3**

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**Competition Policy Convergence:  
The Case Of Export Cartels**

by

**William Ehrlich**

Technical Barriers and Regulations Division (EAS)

and

**I. Prakash Sharma**

Economic and Trade Policy Division (CPE)

(April 1994)

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Policy Staff Papers are written to stimulate discussion within the foreign policy community on international trends and specific issues. The views expressed are not necessarily those of the Government of Canada.

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## Executive Summary

Many countries have permitted and sponsored export cartels of certain sorts which are seen to be in the public interest. Most industrial countries, including the United States, Japan and Canada, permit export cartels by exempting them from the discipline of domestic competition law. In theory, from a narrow national point of view, this may make some sense. If corporations of a country occupy a powerful position in international markets, that country can enhance its national income by exempting an export cartel from the normal purview of competition policy.

However, with all major countries following such strategies, the overall effect must be some net loss for most of them. Trade and competition policies are interrelated. Consequently, the effects of competition policy spill across national borders. The integration of the world economy makes it increasingly difficult to ignore constraints on movement across borders and attempts to shift profits from one country to another.

Recently, some leading trade and competition policy analysts have argued against the exemption that export cartels are accorded in individual national competition and antitrust laws. However, there is also a trend toward broadening exemptions for export cartels. For example, the Export Trading Company Act of 1982 in the U.S. and the Competition Act of 1986 in Canada have broadened the scope of export cartels. Not to be outdone, Japan limits the reach of its competition policy by tolerating a variety of cartels, including export cartels.

This Paper seeks to address the following questions: How do export cartels affect trade? What is their significance in international trade and, more broadly, for international trade policy? What is the effect of export cartels on corporate pricing strategies?

As far as export cartels are concerned, the gap between policy prescriptions and its actual practice is widening. If tariff policies are no longer available to constrain international competition, attempts are being made to change competition and antitrust laws themselves. Export cartels are increasingly coming to be viewed as an instrument of strategic trade policy. A national government exempting its export cartels, it is argued, would permit cartels based in its territory to capture supra normal profits in international markets. This Paper argues that there is only limited support from economic analysis for such a presumption.

Another reason for export cartels arises when a major importing country negotiates a restriction on exports from foreign sources. For instance, in the last three decades the U.S. and the E.U., among others, have negotiated many voluntary export restraints (VERs) or voluntary import expansion agreements (VIEs), or have imposed anti-dumping duties on many goods they import from Japan and elsewhere. In the Japanese case, at least, the use of such

"managed" trade policy has led to the emergence of export cartels in Japan. Furthermore, VERs and VIEs can facilitate cartels in both exporting and importing countries.

In contrast, some other cooperative arrangements among firms, even those in similar lines of business, have the potential of being beneficial. For example, research joint ventures (RJVs) can benefit the member firms, as well as being efficiency enhancing for the economy at large, provided the RJV firms do not collude in selling their products. Moreover, export consortia established in smaller economies (including Canada) where firms are not usually large by global standards can assist those firms in competing more effectively in the international market place. Such participation can enhance the degree of competition in the market, contributing to dynamic economic benefits.

This Paper argues that the pro-efficiency contributions of export consortia should be recognized and permitted (as they are under the current Competition Act in Canada), while the potential cartelizing and price-fixing elements should be restrained. Therefore, a per se prohibition of export cartels clearly is not desirable. On the other hand, it is for consideration whether broader Canadian interests might lie in supporting proposals to replace the current export cartel exemption found in the competition statutes of most OECD countries as part of a comprehensive multilateral or plurilateral review of competition issues and trade remedy practices. Economic theory indicates that a case-by-case rule of reason application of competition policy law is preferable, although trade policy experience would indicate that such an approach would also require mutually agreed guidelines on the operation of rule of reason procedures to foreclose the unilateral adjustment of such criteria by our major trading partners.

The companion issue of import cartels is explored somewhat further in the annex to this paper. In general, import cartels are welfare reducing, require the undermining of effective and responsible competition policy and can encourage a self-defeating, beggar-thy-neighbour reaction from other trading partners.

The mis-use of trade policy as a substitute for international competition policy undermines the multilateral trading system. The net effect of such mis-use could well move beyond bilateral friction and result in a form of de-globalization if major countries retreat into a defensive trade policy stance. Thus, the re-emergence of concern with international cartelization should be a positive signal to those interested in developing a more complete rules-based trading system.

In the NAFTA context, the cartel issue could be used to spark a policy reconsideration of the long term role of competition policy in an integrating free trade area and the role for competition policy in propelling such integration to support market forces.

## Résumé

Plusieurs pays ont autorisé et encouragé divers types de cartels d'exportation jugés favoriser l'intérêt public. La plupart des pays industriels, dont les États-Unis, le Japon et le Canada, autorisent les cartels d'exportation en les exemptant des lois nationales sur la concurrence. En théorie et d'un strict point de vue national, cette façon d'agir peut avoir un certain sens. Si les sociétés d'un pays occupent une position de force sur les marchés étrangers, ce pays peut accroître son revenu national en exemptant un cartel d'exportation de l'application normale de la politique de concurrence.

Mais si tous les grands pays appliquent des stratégies similaires, la plupart d'entre eux en sortiront nettement perdants. Comme les politiques en matière de commerce et de concurrence sont interreliées, les effets de la politique de concurrence débordent les frontières nationales. L'intégration de l'économie mondiale fait qu'il est de plus en plus difficile d'ignorer les contraintes posées aux mouvements transfrontières. Elle a pour effet de transférer les bénéfices d'un pays à un autre.

Certains éminents analystes des politiques du commerce et de la concurrence ont récemment critiqué l'exemption que les cartels d'exportation se voient accorder par certains pays aux termes de leur législation sur la concurrence et sur les ententes. Mais on note aussi une tendance à l'élargissement des exemptions accordées à ces cartels. À titre d'exemple, le *Export Trading Company Act* de 1982 des États-Unis et La loi canadienne de 1986 sur la concurrence ont élargi le champ d'action des cartels d'exportation. Et le Japon restreint la portée de sa propre politique de concurrence en tolérant divers types d'ententes, y compris les cartels d'exportation.

Ce document tente de répondre aux questions suivantes : Comment les cartels d'exportation affectent-ils le commerce? Quel est leur effet sur le commerce international et, de façon plus générale, sur la politique commerciale internationale? Quel effet les cartels d'exportation ont-ils sur les stratégies de prix des entreprises?

Pour ce qui concerne les cartels d'exportation, l'écart entre les prescriptions de politique et la mise en pratique ne cesse de s'élargir. Lorsque les politiques tarifaires ne peuvent plus être utilisées pour restreindre la concurrence internationale, des efforts sont faits pour modifier directement les lois sur la concurrence et sur les ententes. Le cartel d'exportation est de plus en plus souvent vu comme un instrument de la politique commerciale stratégique. On soutient qu'un gouvernement national qui exempte ses cartels d'exportation permettrait aux cartels basés sur son territoire de s'accaparer normalement des

superbénéfiques sur les marchés étrangers. À notre avis, cette hypothèse est peu appuyée par l'analyse économique.

La question des cartels d'exportation se pose aussi quand un grand pays importateur négocie une limitation des exportations de sources étrangères. Dans les trente dernières années, par exemple, les États-Unis et l'UE ont négocié nombre de limitations volontaires des exportations (LVE) ou d'augmentations volontaires des importations (AVI), ou ont imposé des droits antidumping sur plusieurs produits importés du Japon et d'ailleurs. Dans le cas du Japon, l'utilisation d'une politique «d'encadrement» des échanges a au moins entraîné l'émergence de cartels d'exportation. De plus, les LVE et les AVI peuvent faciliter l'émergence de cartels dans les pays exportateur et importateur.

Par contraste, certains autres arrangements de coopération entre firmes peuvent être avantageux, même lorsqu'ils impliquent des entreprises oeuvrant dans le même domaine d'activité. Par exemple, les coentreprises de recherche peuvent avantager les sociétés membres tout en améliorant généralement l'efficacité économique, à condition que les coentrepreneurs n'aient pas de pratiques de vente collusoires. De plus, les consortia d'exportation établis dans des économies plus petites (comme le Canada) où les firmes n'ont généralement pas une taille de calibre international peuvent aider ces firmes à livrer une meilleure concurrence sur les marchés étrangers. Cette participation peut rehausser le niveau de concurrence sur le marché et générer ainsi des avantages économiques dynamiques.

Nous soutenons dans ce document que les contributions des consortia d'exportation au renforcement de l'efficacité devraient être reconnues et sanctionnées (comme elles le sont actuellement dans la Loi canadienne sur la concurrence), mais que les éléments potentiels de cartellisation et de fixation concertée des prix devraient faire l'objet de restrictions. Par conséquent, une prohibition per se des cartels d'exportation n'est nettement pas souhaitable. Par ailleurs, il faut se demander si le Canada aurait globalement intérêt à appuyer les propositions visant à remplacer l'exemption actuellement accordée aux cartels d'exportation dans les lois sur la concurrence de la plupart des pays de l'OCDE dans le cadre d'un grand examen multilatéral ou plurilatéral des questions de concurrence et des mesures commerciales correctives. Selon la théorie économique, il est préférable d'appliquer la législation sur la concurrence au cas par cas sur la base de la règle du caractère raisonnable; mais la pratique de la politique commerciale semble indiquer qu'une telle approche nécessiterait aussi des lignes directrices mutuellement convenues sur l'application du critère du caractère raisonnable pour que l'interprétation donnée à ce critère ne puisse être unilatéralement modifiée par nos grands partenaires commerciaux.

La question connexe des cartels d'importation est explorée un peu plus en détail à l'annexe. On peut généralement dire que les cartels d'importation réduisent le niveau de bien-être, qu'ils sont incompatibles avec une politique de concurrence efficace et responsable, et



qu'ils peuvent encourager nos grands partenaires commerciaux à adopter une politique de prédation auto-destructrice.

L'utilisation abusive de la politique commerciale comme substitut de la politique de concurrence internationale affaiblit le système commercial multilatéral et, outre ses effets négatifs sur les relations bilatérales, pourrait bien entraîner une certaine forme de dé-mondialisation si les grands pays commerçants se replient sur une politique commerciale défensive. Ainsi, la réémergence des préoccupations devant le phénomène de la cartellisation internationale devrait donner un signe positif à ceux qui veulent développer un système commercial basé sur des règles plus exhaustives.

Dans le contexte de l'ALENA, la question des cartels pourrait être utilisée pour susciter un réexamen du rôle à long terme de la politique de concurrence dans l'intégration au niveau de la zone de libre-échange, et aussi un réexamen de la façon dont la politique de concurrence encourage cette intégration à l'appui des forces du marché.

## 1. Introduction<sup>1</sup>

A growing number of economic policy instruments have become subject to international discipline. As a result, the remaining national policy tools have become increasingly salient to domestic interests searching for some advantage. In parallel, the international community has become concerned that the remaining instruments falling outside effective multilateral commitments not be misdirected to protect or improve the terms of trade of domestic firms. In such an environment, any perception that governments manipulate markets for the benefit of domestic firms raises questions regarding the national competition regime and its application. Exceptions to national competition law and the selective or discriminatory application of these laws is thus coming under increased international scrutiny.

The purpose of the paper is to highlight a specific issue, the tolerance of export cartels under most national competition laws. Export cartels permit the shifting of profits from foreigners to home-country firms, presumably on grounds that no national is injured and that domestic producers profit. Virtually every nation has laws or policies that permit export cartels to operate from within its borders. Export cartels are authorized by governments or are broadly exempted from competition law. Their alleged purpose is to increase the quantity and value of exports, especially by domestic firms that are small players in international markets.

In an integrating world economy, the treatment of export cartels goes to the heart of the trade-competition interface, particularly the direct relationship between market integration and competition. Countries have become increasingly vulnerable to the actions of foreign actors due to the growing interdependence of international markets. In the past, many claims related to alleged export cartel activity were dismissed or went unchallenged on the grounds that, because they did not demonstrate the requisite effect on home markets, the domestic courts lacked jurisdiction. This jurisdictional requirement is unlikely to be a barrier to future antitrust action in view of the growing interdependence of markets.

The basic premises of this paper are:

- the effects of competition policies spill across national borders, and trade and competition policies are interrelated;

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<sup>1</sup> The authors thank the following for their comments: Keith Christie, Nicolas Dimic and Prue Thomson from Foreign Affairs; Derek Ireland, Don Partridge and Margaret Sanderson from the Competition Bureau; and Gilles Gauthier from Finance. Mrs. Joanne Burger provided valuable research assistance. Of course, the responsibility for the views expressed in this Paper remains with the authors. A segment of this Paper was used for the inter-departmental preparations of the OECD initiative on trade and competition.

- the integration of the world economy makes it increasingly difficult to ignore constraints on movement across borders and attempts to shift profits from one country to another; and
- a rules-based multilateral framework is a desirable objective for dealing with international aspects of competition policy. This is preferable to allowing competition law to become an instrument of protectionism, selective or discriminatory application or a buttress for market segmentation.

Attitudes in many jurisdictions, including the U.S. and E.U., have become increasingly hostile toward practices seen as tolerating or promoting anti-competitive conduct by engaging in unfair trading practices, including the use of government-sponsored cartels. The U.S. Justice Department is increasingly concerned about foreign anti-competitive activities that inhibit exports of U.S. goods. The E.U. has reacted to foreign anti-competitive practices by passing legislation designed to broaden the scope and reach of its antitrust law against export cartels directed at the E.U.. For example, in the Wood Pulp case,<sup>2</sup> the Union used the equivalent effects doctrine—which allows affected nations to enforce their law against in-bound cartels—to find jurisdiction over various foreign wood pulp producers, including Canadian firms, involved in a conspiracy to fix the price of pulp sold in the Community. To the extent that foreign firms distributed products in the Community and the effect of these prices was a direct result of a cartel agreement, the Community found a presence within its market sufficient to support an assertion of jurisdiction.

In Canada, there has been increased reflection on the international aspects of competition policy. Concerns have recently been expressed regarding the discriminatory use of antitrust for industrial policy reasons, for instance the recent U.S. antitrust immunity law for production joint ventures. In a more positive light, competition policy has found a niche, albeit a general and modest one, in the NAFTA agreement. A debate continues as to the desirability and feasibility of replacing antidumping measures between Canada and the U.S. with competition rules. At the same time, Canada has taken a leadership role in the OECD initiative on trade and competition.

The rest of this Paper is organized as follows. Section 2 takes up an analysis of export cartels. The treatment of export cartels by major industrial countries is discussed in section 3. Policy implications are brought out in section 4. Finally, section 5 contains the conclusions. In the annex, the issue of import cartels is introduced and briefly examined.

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<sup>2</sup> A. Ahlstrom Osakeyhtio v. Commission of the European Communities, E. Comm. Ct. J. Rep. 5193, 1988 Common Mkt. Rep., (CCH) p. 14,491 (1988).

## 2. An Analysis of Export Cartels

Export cartels are cooperative arrangements among firms attempting to market their goods and services abroad, to enter new markets or to expand their share of existing markets. Most governments encourage export cartels because they are viewed as enabling exporting firms to achieve economies of scale in distribution networks and information gathering or to counter the buying power of overseas procurement/importing cartels. Both industrial and developing countries have taken similar positions in defending the use of export cartels to build international sales and shift rents. In addition, developing countries claim a need for export cartels as a mechanism for development.

Cartels may involve price fixing, output controls, bid-rigging, allocation of customers, allocations of sales by product or territory, establishment of trade practices, common sales agencies or a combination of these.

### 2.1 Definition

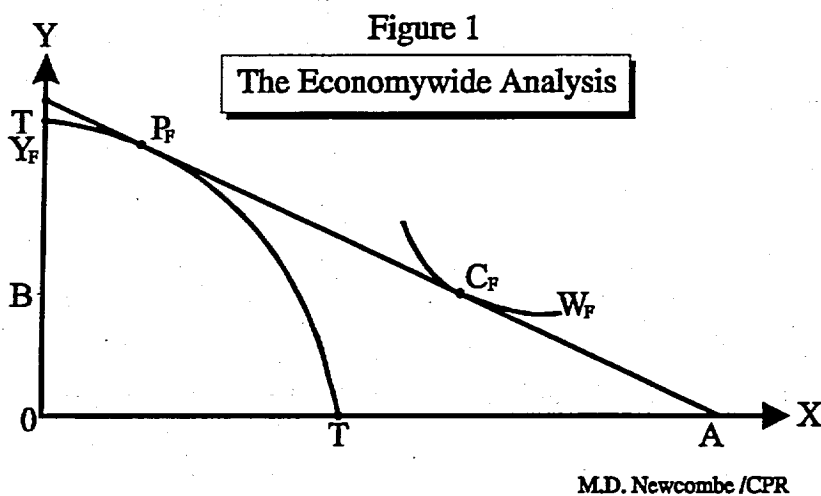
Export cartels vary in terms of their scope and constituency. The simplest case is the *pure export cartel* directed exclusively at foreign markets. *Mixed export cartels* restrain competition in the exporting country's home market as well as foreign markets. *National export cartels* only include suppliers from one country, while *international export cartels* are comprised of producers from several countries. A further distinction between private and *public export cartels* is also made. *Private export cartels* involve private agreements. They may or may not be publicly enforced depending on the country, the period and the agreement. Some export cartels are private, but the best known have resulted from agreements among national governments.

Even though most industrialized countries now have anti-cartel laws, virtually all have derogations treating export collaboration by companies incorporated domestically as beyond the reach of the competition laws. However, some countries do not distinguish between pure and mixed cartels in their competition laws. Traditionally, *commodity export cartels* have been organized by producing countries. The best known and most successful commodity cartel in history is the Organization of Petroleum Exporting Countries (OPEC). However, attempts at sustaining international oligopoly in the form of an *export cartel for manufactured goods* have generally not been successful. Recently, there have been attempts to form *technology cartels* in various countries to promote research and development (R&D).

A perfect cartel would maximize the sum of the profits of its members. Such an objective requires that output be allocated among participants so that cost is minimized. This

further requires that different producers operate their capacities at different rates. In the long run, some participants' plants would have to be closed. Such a perfect cartel would be difficult to distinguish from a well-run firm. The classic example was the prewar German chemical firm, I.G. Farben (Interessen Gemeinschaft Farbenindustrie meaning "Community of Interests in the Dye Industry"). It did begin as an eight-firm cartel, but by 1925 they had all merged.<sup>3</sup>

## 2.2 The Logic of Export Cartels

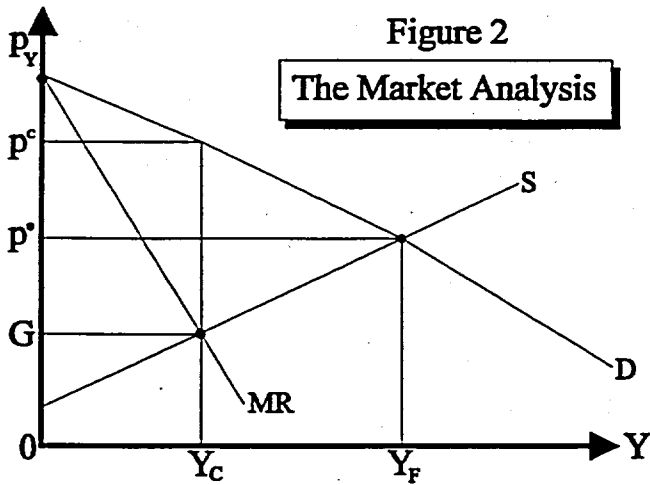


International trade pays dividends by enlarging the gains from trade and enforcing market competition on companies. However, if the companies, taken together, possess monopoly power on the international market, then a country can extract higher joint profits on its exports by letting the companies collude as an international oligopoly. When a domestic export cartel earns supra-normal profits on goods sold to foreigners, those profits both enrich the export oligopolists and enter into the exporting country's national income. For an illustration of this logic, consider Figures 1 and 2.

In Figure 1, goods X and Y are produced in a competitive economy at a point, such as  $P_F$ , on its production possibilities curve (labelled  $TT$ ). The world market price of good X (relative to the price of good Y) is represented by the slope of the line, labelled  $AP_F C_F$ . In free trade, the economy produces  $OY_F$  amount of good Y, of which  $Y_F B$  is sold by its firms abroad; and the country's national income, measured in terms of good X, is  $OA$ . The level of social welfare enjoyed in the economy is represented by the community indifference curve

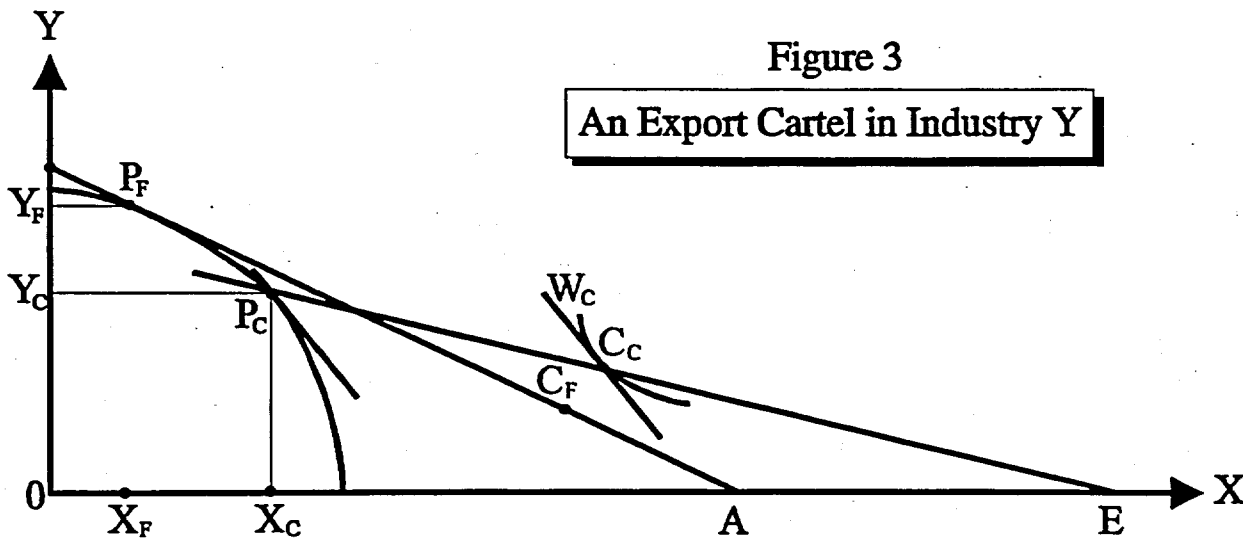
<sup>3</sup> R.K. Michels, *Cartels, Combines and Trusts in Post-War Germany*, New York: Columbia University Press, 1928.

labelled  $W_F$ . In Figure 2, the demand and supply of good  $Y$  determine the output level at  $OY_F$  and the price at  $Op^*$ .



Suppose that the competitive firms producing good  $Y$  are now permitted to form an export cartel. To drain wealth to its member firms from customer countries, the cartel must scale back the level of output to  $OY_C$  in Figure 2. This reduction in the supply of good  $Y$  on the world markets results in a higher price of  $Op^c$ . Supra-normal profits contribute to an increase in the national income in the economy. The antitrust or competition policy authorities are willing to tolerate this situation provided the domestic market price of  $Y$  remains below  $Op^*$ , such as at  $OG$ .

The economywide consequences of the cartel formation are analyzed in Figure 3. The reduction in the output of good  $Y$  to  $OY_C$  shifts the production in the economy to  $P_C$ . The resources freed up in the  $Y$  sector move over time to sector  $X$  and the output expands from  $OX_F$  to  $OX_C$ . Additional output of good  $X$  results in a lower relative price of good  $X$ , as shown by the slope of the line  $P_C C_C$ . The higher level of national income possible under the



M.D. Newcombe / CPR

export cartel is represented by a point like *OE* in Figure 3. With the cartelization of *Y* industry, as compared to the free trade situation, the economy enjoys a higher level of social welfare at a point such as *C<sub>c</sub>*.

In adjusting its production and consumption to the cartelization of the *Y* industry, the income earned by the factors of production in the economy also changes. Consider an example. Let us assume that the *Y* industry employs more capital (machines, computers, laboratories and so on) per worker than does the *X* industry. As the *Y* industry contracts, it sets free many more units of capital than can be readily employed by the *X* industry. Consequently, the return on capital will fall in the economy. Industry *X*, however, would want to hire more workers, being relatively labour intensive, than are being released by industry *Y*. Consequently, wages will rise in the economy and workers will favour export cartels. In addition, shareholders and owners of member companies benefit by partaking of rents generated by the export cartel, although the rate of return on capital tends to decline. This theoretical prediction is relevant in the upcoming discussion of export cartels in Japan.

Most countries are happy that domestic companies form or join an export cartel. They hope to take advantage of their market power effectively—by exploiting foreign customers or by snatching monopoly rents away from foreign exporters. The optimal policy, in the home country, is to compel the export cartel to sell domestically at a competitive price (such as the one shown by the slope of *P<sub>c</sub>C<sub>c</sub>* price line in Figure 3).

However, the problem is to find a practical policy instrument that will effectively control the domestic price while allowing the producers to cartelize the international markets. In practice, governments have some means to regulate the degree of competition in an industry, but not much leverage for making it more competitive in its domestic than in its foreign sales. This shortcoming makes the government face a trade-off. The more cartelization it allows in the industry overall, the more rents are lifted from foreign pockets, but also the more that consumer benefits (surplus) are lost by domestic buyers.

In theory, the government can make a second-best choice—the right degree of cartelization has the property that a slight increase adds just enough income from exporting profits to offset the resulting, extra deadweight loss of domestic consumers' surplus. Other things being equal, the welfare-maximizing degree of cartelization corresponds to the proportion of its output that the domestic industry exports. In general, theory predicts that the more important an exporting activity is for a country, the more generously does the country allow collusion among its exporters.<sup>4</sup>

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<sup>4</sup> See A.A. Auquier and R.E. Caves, "Monopolistic Export Industries, Trade Taxes and Optimal Competition Policy", *Economic Journal*, 89, September 1979: 559-81.

The meat and potatoes of market distorting cartels are price fixing and the allocation of output quotas. A promising route to restrict competition has often seemed to be when a good number of countries exporting the same commodity agree to restrict supply and drive up price. The scope for gains from forming a cartel is greatest when the cartel controls much of the world production, when there is little ability on the part of consumers to switch away from the product, and when alternative sources of supply are difficult to develop.

### 2.3 The Self-Liquidating Nature of Cartels

Certain conditions are required for the continued viability of an export cartel arrangement. First, demand for the product must be relatively insensitive (i.e., inelastic) to price changes; that is, a higher price must neither excessively reduce demand for the product nor trigger much substitution. Second, the supply of the product must also be relatively insensitive to price changes. In virtually all cases, maintaining an artificially limited supply requires that most of the commodity be under the control of members of the export cartel. In order to discourage new entrants, cartel members must pursue moderate strategies in raising their prices; and they must find the optimum price at which they can maximize their returns without triggering investment by new entrants. In addition, the likelihood of substitution of alternative commodities for a cartel's products is sharply reduced if the price of competing commodities is rising as well. For example, natural rubber became a candidate for cartelization when the price of synthetic rubber climbed dramatically in the 1980s in response to the rise in oil prices. Also, the production processes for many end products, in the short term, require fixed proportions of resources which permits resource export cartels to jack up prices without substantial loss of sales.

Enforcement is a crucial aspect of cartels. This requires (a) detection of violations and (b) sanctions on violators. Detection is easy in transparent situations, such as oral auctions. However, in the more common cases where firms must bid for customers in sealed-bid auctions or through salesmen, detection is much more difficult, unless winning bids are publicly announced. For the individual members, the gains from "cheating" are greater than the loss from potential punishment when detected. There may result a general price war and a temporary suspension of the cartel. Consequently, private cartels with many members are weak unless the market is concentrated.

To see why cartel members have an incentive to cheat, consider Figure 2 again. To maximize the overall cartel profits, each member must not sell more than its assigned quota such that the overall cartel production does not exceed  $OY_C$  output level. But the  $OY_C$  level of output does not maximize profits of an individual member firm. The firm figures that its revenue from selling one more unit is  $Op^c$ , while that incremental unit costs it only the amount indicated by  $OG$ . The firm can make higher profits by selling more.



However, once a few firms cheat, others may follow. Price concessions made secretly by a few "chislers" or openly by a few malcontents cut into the sales of cooperative members of the cartel who are induced to match them. Thus, the ranks of the unfaithful are expanded; and ultimately, the cartel may break down completely. The likelihood increases with the number of firms in the cartel. Consequently, as long as a cartel is not maintained by legal provisions, there is a constant threat to its existence as each participant tries to maximize its profits.

The cartel group is always conscious that collusive agreements tend to break down. To avert such an outcome, effective private cartels are most likely to build and maintain excess capacity. The excess capacity serves two purposes. First, it signifies a credible threat of retaliation against violating members. Second, it makes the threat of a lower (predatory) price and higher output credible to an entrant, should he venture forth to test the market.<sup>5</sup>

What is the effect of cartels on corporate pricing? In private cartels, prices are unlikely to be set at joint profit maximizing levels. The bargaining power of major participants is apt to reflect their potential profitability without the cartel. Usually the low-cost firms have the best prospects without the cartel. If they determine cartel price, it is likely to be lower than that of a monopolist with the same plants. Small firms may also have a special influence on cartel price. A firm that is too small to be worth disciplining will probably sell at a discount from the cartel price, as argued above. Such a small firm as a cartel member is likely to favour high cartel prices from which it may discount. If the number of such small firms becomes large, the larger members may try to discipline the fringe as a whole to limit their discounts. Ironically, the growth of a large fringe commonly leads to the collapse of the cartel.

## 2.4 Resource Cartels

Export cartels have a popular association with resource products. Over the years, there have been many attempts to form export cartels, in commodities ranging from coffee to oil to tin. Primary-product cartels first became prominent after World War I. The measures employed by these primary product, multi-country cartels are directed at controlling the supply of a given product on the market. Depending on the circumstances, the techniques employed are decreed prices, production cutbacks, selective embargoes, increased royalty payments, negotiated prices, direct market intervention, stockpiling and export taxes.

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<sup>5</sup> W.A. Brock and J. Scheinkman, "Price Setting Supergames with Capacity Constraints", *Review of Economic Studies*, 52(3), July 1985: 371-82.

Most export cartels failed for want of one or another of the requisite conditions listed above, even after producer governments became active participants in the 1930s. Producer countries often argue that associations of producers should be tolerated or even encouraged in order to stabilize commodity prices. Their objectives include: a sharp increase in receipts from the commodity itself, protection against price declines, greater price stability, conservation of a depleting resource, more domestic processing, and/or more local control over the industry. There may be real economic gains from building up buffer stocks to raise prices in periods of excess supply and selling the stocks to mitigate price increases when demand exceeds production. However, stabilization can be hard to distinguish from plain monopolistic price increases.

The operation of international commodity agreements since World War II reflects this ambiguity of objectives and also illustrates the ways in which the export cartels can fail. Reflecting their unclear objectives, the cartels have employed a mixture of policy instruments—buffer stocks (usable mainly for price stabilization) and export quotas (needed to secure monopoly prices). Even those cartels that succeeded for some time collapsed through the failure of one or the other mechanism.

In the 1970s and 1980s, producers of primary products made an intense effort to maximize their market power by forming cartels in order to boost their earnings.<sup>6</sup> Some of the more prominent efforts have been to cartelize:

- oil-exporters through OPEC;
- leading bauxite producers through the International Bauxite Association ;
- phosphate producers;
- leading copper producers through the Council of Copper Exporting Countries;
- tin producers, through the International Tin Agreement; and
- the leading coffee producers, through a series of interlocking market companies and stockpile-financing arrangements.

In addition, efforts have from time to time been undertaken regarding iron ore and mercury and a number of other products such as tea, tropical timber, natural rubber, nickel, tungsten, cobalt, columbium, tantalum, pepper and quinine. Some arrangements have enjoyed some success: oil, phosphates and coffee. Others faltered rapidly: bananas, bauxite, copper and tin. The average life expectancy a multi-country resource sector cartel is relatively short. In view of this, the economics literature stresses the inevitability of their collapse. Diamonds

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<sup>6</sup> Richard E. Caves, "International Cartels and Monopolies in International Trade", in Rudiger Dornbusch and Jacob A. Frenkel, (ed.), *International Economic Policy: Theory and Evidence*, Baltimore: The Johns Hopkins University Press, 1979: 39-73.

are the most cartelized resource product. De Beers, a private cartel, manages the marketing of South African and Russian diamond ores.

*Case Study: De Beers's Diamond Cartel Forever?*<sup>7</sup>

De Beers sells illusions. It sells the idea that diamonds bring love, romance and sex. It encourages the belief that its monopoly is essential to the business of diamonds and as everlasting as they are. The diamond cartel was set up in 1930 by Sir Ernst Oppenheimer, a South African mining magnate.

Its survival is testimony to the ingenious way in which De Beers dominates its trade. The basic element of market control is to make it hard for producers to desert the system. De Beers pays producers higher prices than they can find elsewhere when prices are weak, so they have little incentive to undercut De Beers in pursuit of market share. De Beers backs up this carrot with a stick—its ability to increase the supply to the market of particular types of diamond. Every diamond mine has its own characteristic output. If a mine with lots of medium-sized stones is tempted to go it alone, it must face the likelihood that De Beers is able to flood the market with just that sort of diamond. Nearly all producers opt to stay with De Beers. De Beers treats them with utmost discretion. For instance, during the years of apartheid, diamonds from Russia found their way through the De Beers system and into the hands of cutters without Russia suffering any embarrassment over collaboration with South Africa.

De Beers deals with the problem of possible overproduction by cartel members with a clever quota system. The biggest producer is Australia, followed by Zaire, Botswana, Russia and South Africa. Most significant producers have a contract to supply a certain proportion of De Beers's annual diamond sales. When sales are weak, these quotas follow and the burden passes on to the mines. Moreover, De Beers's own mines also act as a swing producer when times are bad.

Another ingredient of De Beers's production control is that its own mines are one of the world's cheapest sources of fine diamonds. Down the line from production, De Beers also dominates the trade in rough diamonds. It reinforces its role as buffer stock manager through its external buying offices, particularly in Kinshasa and Antwerp. These operate in the market for diamonds mined outside De Beers's own production network.

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<sup>7</sup> For the data in this case study, see *The Economist*, "Diamonds: The Cartel Lives to Face Another Threat", London, January 10, 1987: 58-60.

The trade's next middlemen, the rough-diamond cutters, are also cajoled to play along with the system. De Beers sells over 3,000 types of diamonds, but does not allow the cutters freedom to select what they want. The rough stones are sold at "sights". A buyer takes a whole box, or he turns down a whole box. Nor can he bargain over price (boxes are worth from \$1 million to \$25 million each). The box method keeps the flow of diamonds going in lean times. Just as important, it keeps the right mix of diamonds flowing.

This box system is based upon an intimate knowledge of the state of the diamond pipeline. Such is De Beers's clout that it can check whether cutters are secretly building up stocks of a certain type of gem through the spot checks of its clients' books. De Beers records the capacity of cutters, their requirements and their stocks. De Beers claims that more than 80% (by volume) of the world's diamonds flow to the market through this system.

The final element in De Beers's grasp of the diamond market is the way it shapes diamond demand by spending over \$110 million a year on advertising. This focuses the consumers' attention specifically on the stones which De Beers needs to sell. For instance, to shift lots of small diamonds in one go, De Beers invents the diamond-studded wedding anniversary rings—"a band of diamond that says you'd marry her all over again".

Control production. Dominate the trade. Influence demand. De Beers, in short, is a hard act to follow.

The international coffee agreement, like others, failed because producers could not agree on reallocating quotas among themselves toward suppliers that were raising their efficiency (lowering marginal cost) or producing varieties in growing demand. After maintaining high and stable prices during 1980-1989, the agreement collapsed (and wholesale prices fell 40%) when Brazil left it. Brazil, a large but not high-quality producer, was unwilling to accept a reduced output quota and market share.<sup>8</sup>

### ***Case Study: The International Tin Agreement***

Of all commodities, tin is probably the one where conditions are most conducive to the success of a commodity agreement. There are relatively few major exporters, tin is important to all of them (so they have a strong incentive to cooperate), the market is thin enough to be very responsive to intervention and the stocks available for intervention are large relative to the market.

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<sup>8</sup> See Christopher L. Gilbert, "International Commodity Agreements: Design and Performance", *World Development*, (15), May 1987: 591-616; and Takamasa Akiyama and Panayotis N. Varangis, "The Impact of the International Coffee Agreement on Producing Countries", *World Economic Review*, (4), May 1990:157-73.

The bulk of the world's tin is produced by Malaysia, Indonesia, Thailand and Bolivia. The largest producer is Malaysia. The country most dependent on tin is Bolivia. The most important uses of tin are in cans and in solder. Substitutes, such as plastics and aluminum, have become more and more important for containers, while the resmelting of tin scrap has increased.

International attempts to regulate the tin market began back in the 1920s. In the face of depressed prices caused by an oversupply of tin after World War I, the main producing firms established voluntary production quotas. These did not work, and so the countries concerned negotiated an agreement in 1931. This involved mandatory quotas, enforced by the member governments and a buffer stock. The members of the agreement accounted for about 90% of world output. The agreement was successful in supporting prices, but this success induced expanded operations by "free riders", tin producers who did not participate in the agreement even though they benefited from the higher prices it brought about. Thus by 1933, the members' market share had fallen to about 73%. Successive agreements followed, up to World War II, with outsiders being brought in (for a price) and more features added to the agreement.

Negotiations after the War for a new arrangement culminated in the International Tin Agreement of 1956. Consumer countries were also included. Every five years, a new agreement came into being, with the most recent being the 1981 Sixth International Tin Agreement, which included 22 producing and consuming nations. The agreement set floor and ceiling prices and provided for a Council to oversee operations. There was a buffer stock (usually about 15% of world production), whose manager bought and sold tin to keep the world price between the floor and ceiling. The Council also set export quotas and levied fines on members who violated them. The floor and ceiling prices had to be changed repeatedly and the buffer stock had been depleted several times. Nonetheless, there was modest success in limiting price fluctuations.

In the early 1980s, the price of tin began a long downward slide. The buffer stock manager bought tin steadily to support the price. This was successful, but with the price kept up producers were tempted to cheat or to free ride. Consumers were tempted to substitute for tin. Production expanded greatly in Brazil and China, both non-members, while Britain took more tin from its ancient Cornish mines. These two countries were actually members of the Agreement, but as consumers rather than producers. There were also allegations that the U.S., a non-member, was selling from its stockpile and that firms in member countries were cheating. All of this put pressure on the market.

In October 1985, the International Tin Council ran out of cash and announced that it could not honour commitments it had made to buy tin at the floor price: about 80,000 tons valued at around \$1 billion. Many of these contracts had been made on the London Metals

Exchange (LME). The Council had dealt with about half of the twenty-eight members of the LME. These members are not brokers but deal as principals. So when the Council reneged, the members it had dealt with were left holding the bag. The LME suspended all trading in tin, and negotiations began to bail out the Council. But the consumer countries and small producers had little incentive to contribute for this purpose and other countries, such as Bolivia, were themselves in desperate financial shape. Despite this spectacular collapse, the tin cartel lasted for almost thirty years and was perhaps the least unsuccessful of the many attempts at commodity market stabilization.

Despite this woeful experience, in the 1970s the developing countries demanded, through the United Nations Conference on Trade and Development (UNCTAD) an international programme of commodity agreements as the keystone of a "New International Economic Order". This cartelization-for-development position was asserted in the course of the UNCTAD negotiations regarding the Restrictive Practices Code and is reflected in its preamble. It would involve agreements covering 18 commodities, along with a Common Fund to finance the agreements and to assist the developing countries to diversify their exports. A much reduced version of the Common Fund was agreed to in principle in 1983, but ratification faltered.<sup>9</sup>

## 2.5 Export Cartels in Manufactured and Technology Goods

In theory, export cartels for industrial and technology goods should resemble the resource sector cartels in terms of pricing and viability. However, in principle resource goods are traded in perfectly competitive markets in which individual firms have no significant influence on price. On the other hand, manufactured products and technology goods are commonly traded in imperfectly competitive markets, which provide firms with greater opportunities to shape the price of their products. In imperfectly competitive markets, price is often in excess of the marginal cost of production, leading to supra-normal profits. Efforts to maximize such profits provide ample scope for restrictive business practices and anti-competitive practices for extending the impact of the export cartel.

The industrial cartel attempts to cope with an extra challenge that is not as acutely experienced by the resource cartels—the prospects of a technological challenge. The resource sector operates, in part, on the basis of locational endowments. Technological improvements in the resource sector are generally diffused among producers fairly evenly. The manufactured or technology product requires a substantial investment in R&D or other fixed costs, or involves significant learning-by-doing so that there are important economies of scale.

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<sup>9</sup> See Christopher L. Gilbert, *op.cit.*, 1987.

In manufactured and high-technology industries, imperfect competition, strategic behaviour, dynamic economies of scale, and technological externalities provide a fertile breeding ground for interventionist national policies. Such measures can include subsidies, antitrust relaxation or exemptions, and broadly speaking results-oriented or managed trade. The strategic trade policy tools are interventionist and discriminatory. The obvious question is, can the home government implement policy measures that give their export incumbents an advantage and thus shift the profit in international markets toward their firms? Might things be different with export cartels under conditions of imperfect competition in a relaxed competition environment where one country is determined to create advantages for its firms? How does the scope for collusive behaviour on the part of the export cartel member affect the international price structure?

Policy proposals are aimed at a search for the best method of boosting the home exporters' position relative to other members of the international oligopoly. The aim is to drive the rivals out of business and enjoy a full-blooded export monopoly. The scope available for national policy depends very much on how the domestic export monopoly competes with other foreign oligopolists in international markets.

In the so-called Cournot-Nash model of sales competition, an increase in the home export cartel's output is assumed to cause its foreign rival to reduce output. In this case, the domestic government can subsidize the export cartel's output expansion. Since world output increases, world profit falls. However, the home export cartel's enlarged market share gives it a sufficiently bigger share of the shrunken profit pie to make it—and the domestic country—better off.

In the so-called Bertrand model of price competition, an increase in the home export cartel's price is assumed to encourage its foreign rivals to raise their prices. To implement this approach, the home government of the first cartel has to hit the domestic export cartel with an export tax. Consequently, the cartel raises its price and supplies the smaller output that is demanded. The foreign rivals will respond by raising their prices and lowering their output. Depending on the relative shifts in prices and output, the overall result could be that the domestic government once again, in theory, is able to shift rents from foreign competitors toward the domestic export monopoly.

At this point, the policy-maker ought to ask the hard question: "How do I know whether the Cournot or the Bertrand assumption fits a given market, so I can tell whether to subsidize or to tax?" Nobody has the answer. Neither assumption can be confirmed by direct

observation. Consequently, the policy advice stemming from these models tends to evaporate into nothing more than an engaging curiosity.<sup>10</sup>

In such an environment, market access barriers create monopoly power for the cartel in its home market. As a result, potential foreign rivals may be deterred from committing to the initial or on-going investment to challenge the incumbent cartel technologically. These rivals recognize the difficulty in recovering their investment in competition with cartelists enjoying a home market monopoly. Export cartels, in such an environment, are transformed into an industrial policy vehicle for targeting foreign markets and strategic pricing. The very success of the cartel depends on weak domestic competition policy enforcement and on its ability, at the same time, to foreclose its home market to foreign rivals.

Another possible technique is the buttressing of the cartel's technological lead through a patent pool which diffuses critical know-how among participating firms. Patent pooling occurs when owners agree to license to each other the use of their innovations. The patent pool may prevent a new innovator from effectively exercising his discovery because it infringes on another blocking patent, owned by the pool. Pool participants may place restrictions on patents, increase prices, decrease output or otherwise deter competition. Such arrangements among the export cartel facilitates collusion in the marketplace and provides the participants a significant advantage over their rivals. In addition, if the cartel agrees to pool future patents, this provides a further disincentive for competitors to invest in research and development of new technology. A strategy focused on the joint use of an export cartel and market access barriers to protect the home market, if sufficient and if successful in deterring the rival's needed investments, would extend the cartel's monopoly power to foreign markets over time.<sup>11</sup>

Certain industrial structures, exempted from antitrust scrutiny, such as civilian-military integration in the U.S. or the *keiretsu* structure of interlocking corporations in Japan may accelerate the monopolizing effects created by such barriers to entry.<sup>12</sup>

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<sup>10</sup> For a detailed analysis of these issues, see I. Prakash Sharma and Keith H. Christie, "And the Devil Take the Hindmost: The Emergence of Strategic Trade Policy", *Policy Staff Paper*, No. 93/14 (December 1993).

<sup>11</sup> David Taylor, "The Sinking of the United States Electronics Industry Within Japanese Patent Pools", *The George Washington Journal of International Law and Economics*, Vol. 26, No. 1, 1992, pp. 181-212.

<sup>12</sup> Daniel Okimoto, "Political Inclusivity: The Domestic Structure of Trade", in *The Political Economy of Japan*, Vol. 2, edited by Takashi Inoguchi and Daniel Okimoto, Stanford University Press 1988.



A judicious combination of these factors dramatically alters the dynamics of the export cartel and facilitates its resort to strategic pricing tactics. The cartel, having secured a domestic monopoly position, can enforce higher domestic prices than would be the case if the home market were open to foreign suppliers. Import barriers and lax domestic competition enforcement induce exports and shape overseas pricing strategies. Thus, at the international level, for example, if the intention is to maximize overseas market share, the cartel would attempt to price so that rivals could not recover their costs. If the intent is to drive the rival from business, predatory pricing can be used. The assumption, of course, is that the cartel can operate without fear of third-party arbitrage that would impose a constraint on its pricing strategies. However, the sustainability of these pricing strategies over time is questionable, although their anti-competition impact on rivals can be distinctly negative over the short to medium term.

## 2.6 Joint Ventures, R&D and Export Consortia

A joint venture occurs when two or more firms join together to form a third, often with a particular project in mind. For example, the parents might incorporate to produce an input or to enter a geographic region where neither operates. As with most forms of business organizations, there are both efficient and inefficient aspects of joint ventures.

Consider the disadvantages first. Through participation in the venture, the financial interests of the parents are linked. Joint ventures become suspect when they take over existing operations of firms. If the likelihood of collusion is increased by the venture, effects can be synergistic. For example, through the venture the parents can share cost information. A common subsidiary can also redistribute rents from collusion. Finally, the venture can be used to exclude certain competitors in a specific market, thereby putting them in a disadvantageous position.

On the pro-efficiency side of joint ventures, firms can achieve gains from economies of scale in their production processes while remaining separate entities. Therefore, joint ventures are numerous in industries where scale economies are important, for example automobile production. When capital markets are imperfect, joint ventures can enable small firms to participate in projects that are otherwise beyond their means. These arrangements can also enable small firms to diversify and share risks.

Joint ventures can be used to enter markets that are artificially restricted. For example, in the presence of high tariffs and quotas, foreign companies often enter into joint ventures with domestic firms, thus reducing costs to both producers and consumers. Moreover, export consortia established in smaller economies, where firms are not usually large by global standards, can assist those firms in competing more effectively in the

international marketplace by sharing market information, pooling risk associated with initial penetration in contestable markets, etc..

Perhaps the most important economy associated with joint ventures is the production and exchange of information. This is particularly important in arguing for special consideration for research joint ventures (RJVs).

The R&D incentive of a single firm hinges squarely on the extent of appropriability of the R&D benefits, so that the presence of large R&D spillovers may drastically reduce the incentives for cost reduction, with the result that the R&D commitment made voluntarily by a firm tends to be socially too small. In a recent study, Bernstein and Mohnen have estimated that the private rates of return to R&D capital are around 17% in the U.S. and Japan, even when international spillovers between the two countries are factored in, while the social returns are three and a half to four times greater than the private return.<sup>13</sup>

Moreover, an agreement on cooperative R&D efforts seems to facilitate more R&D investments. A prominent example of such an RJV in the U.S. is Sematech Inc., a consortium of 14 firms that was formed with the support of the U.S. government to develop new technologies for the production of computer chips.

The alleged advantage of an RJV, aside from enabling the participants to overcome a cost-of-development barrier impenetrable to any one of them alone, is the elimination of duplication of R&D effort. Thus, even if each firm in an RJV were to contribute less than it would spend unilaterally on R&D, the collective R&D effort might result in the development of the technology at a lower cost; or a technology superior to what could be achieved by individual efforts. Against these advantages lurk the fears that the participating firms in an RJV will tend to "free ride" on each other or curtail competition by also cooperating in the product market. The means by which an RJV could enforce price collusion among participants may be quite subtle.

The issue here is how to achieve the alleged advantages of an RJV while avoiding the potential disadvantages. An obvious solution is to allow cooperative R&D in the first stage of this situation (or game), while actively monitoring the possible curtailment of competition in product sales in the second stage. However, this solution leaves open the question of whether or not the firms participating in the RJV should be allowed, by coordinating their R&D decisions, to take fully into account the effect of their R&D efforts on their collective profits

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<sup>13</sup> Jeffrey I. Bernstein and Pierre Mohnen, "International R&D Spillovers Between U.S. and Japanese R&D Intensive Sectors", Cambridge, MA: *National Bureau of Economic Research*, Working Paper No. 4682, March 1994.

from the sale of their products. A firm's payoff consists of the second-stage production profits less its first stage R&D expenditures.

Among the four possible scenarios, the R&D cartel emerges in one case. In the first case of *R&D competition*, each firm decides on its R&D expenditures unilaterally without sharing the resulting R&D knowledge. In the second case of *R&D cartelization*, firms coordinate their R&D investments without eliminating the duplication of R&D. In the third scenario of *RJV competition*, firms make independent R&D investment decisions but share their R&D results fully. The spillover rate is at its maximal possible level in this case. The last model is of an *RJV cartel*, in which firms form an RJV, share their R&D information completely, eliminate duplication of effort and coordinate their R&D expenditure to maximize the sum of their profits. Among all four models, the RJV cartel dominates the other three models, as it yields the highest producers' profit and lowest product prices.<sup>14</sup>

Thus, while the competition policy (antitrust) authorities may seek to prevent collusion among the participants in the RJV in the sale of their final product, they may tolerate or even encourage a high degree of coordination in the conduct of R&D activity. The caveat here is that, whereas RJVs between noncompeting firms or between a few firms in a nonconcentrated industry seem socially desirable, they may well slow research in concentrated and cartelized industries.<sup>15</sup>

However, R&D joint ventures are not completely benign. RJVs, insofar as they pool incumbents' incentives to deter entry, can be effective entry-detering devices. The formation of joint ventures for large innovations can weaken the incumbents' incentive to innovate by removing the competitive stimulus.<sup>16</sup>

Thus, the joint venture is a rather peculiar hybrid form of organization. It is difficult to make sweeping judgements concerning the efficiency of joint ventures. As with other forms of cooperative arrangements, much depends on the particular circumstances and on the

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<sup>14</sup> Morton I. Kamien, Eitan Muller and Israel Zang, "Research Joint Ventures and R&D Cartels", *American Economic Review*, 82(5), December 1992: 1293-1306.

<sup>15</sup> Jean Tirole, *The Theory of Industrial Organization*, MIT Press, Cambridge: Mass., 1988, p. 414.

<sup>16</sup> J. Vickers, "Pre-emptive Patenting, Joint Ventures and the Persistence of Oligopoly", *International Journal of Industrial Organization*, (3) 1985: 261-73.

alternatives available. Therefore, a case-by-case rule-of-reason approach is preferable for joint ventures.<sup>17</sup>

## 2.7 Fighting Off Export Cartels

Can the government of the importing country retaliate against the cartel's pricing strategies? The importing country faces the problem of how to fight off raids on its economic welfare by export cartels of the goods that it imports. In theory, an importing country, facing an export cartel, can increase its welfare by putting a tax on its imports. The tax on imports may cause the cartel to reduce its price.<sup>18</sup> While the consumers themselves are worse off than before the tax, the importing country as a whole is better off because the tax revenue becomes part of national income and could be rebated to consumers or used to buy public goods or to reduce the national debt. From a trade policy perspective, nonetheless, such an import tax would be inconsistent with a country's GATT obligations if the good in question has been formally bound through GATT negotiations (such bindings cover the vast majority of products exported by OECD countries).

Alternatively, policies can be used to shunt business toward a competing domestic oligopolist (whose excess profits *are* part of the national income). If the importing state possesses sufficient will power or politico-economic bargaining power, it could potentially respond or retaliate. Trade policy remedies or defences include antidumping, VERs, and voluntary import expansion agreements (the latter is a recent variant which seeks to establish a minimum numerical target for the cartel's home market to be satisfied by imports). A variety of market access impediments may also come into play, including testing and certification procedures and standards. The importing country is unlikely to liquidate the cartel through these measures. Rather these measures create new distortions, worsening an already inefficient domestic situation. But therein lies the danger—pushing back the power of the cartel using these measures will distort the allocation of resources in the importing country.

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<sup>17</sup> Alexis Jacquemin and Margaret E. Slade, "Cartels, Collusion and Horizontal Merger", in (eds.) Richard Schmalensee and Robert G. Willig, *Handbook of Industrial Organization*, Vol. I, New York: North-Holland, 1989, chapter 7, p. 443.

<sup>18</sup> Homi Katrak, "Multi-National Monopolies and Commercial Policy", *Oxford Economic Papers*, 29, July 1977: 283-91; and James A. Brander and Barbara J. Spencer, "Trade Warfare: Tariffs and Cartels", *Journal of International Economics*, 16, May 1984: 227-42; and Ronald W. Jones, "Trade Taxes and Subsidies with Imperfect Competition", *Economic Letters*, 23, 1987: 375-9.

Furthermore, these retaliatory measures lead to a cycle of frictions in trade relations. The appropriate response to an export cartel rarely involves retaliatory measures. At best, these measures provide a disjointed response. The root issue is a lax domestic competition policy with regard to market distorting export cartels which opens the route to monopolistic tactics both domestically and internationally. The various trade policy responses to the operations of the cartel attempt to take on the impossible substitute role of restricting the international effects of cartelization. As a result, the free flow of international trade comes under strain, international trade frictions are triggered and the trade policy process is overwhelmed in the importing countries as it is captured by defensive interest groups. The underlying issue is not the inadequacy of the trade policy system, but the misdirected use of trade measures in the absence of minimum multilateral standards of competition.

The complex interaction of trade measures and competition enforcement can be illustrated by the U.S.-Japan trade dynamics over the last three decades. In the first instance, the U.S. imposes VERs on Japanese exports to the U.S.. Next, the Japanese authorities respond to these quantity-based restrictions by instituting rationalization and export cartels in their home market. The Japanese response, premised on weak domestic competition enforcement, seeks to avoid foreign retaliation, to maintain access to the U.S. market, and to move Japanese producers up the value-added chain. As a result, Japanese cartelists are successful in maintaining their profitability and become more entrenched in the home and U.S. markets. Subsequently, the Americans protest the lack of antitrust enforcement in Japan. This leads to U.S. demands for guaranteed access to specific Japanese markets. What had been distorted by the U.S. imposition of VERs on Japan and made worse by lax antitrust enforcement and resulting cartelization in Japan, is crowned at a later stage by a frustrated U.S. demanding a guaranteed minimum market share. VERs and the absence of competition enforcement leads to a destructive cycle of trade and competition distortions.

The situation with regard to Japan thus appears complex. Essentially, a tacit historic compromise between Japan and the Western countries seems to have been struck which has not been challenged until recently. Western countries desirous of protecting their industries have tacitly agreed to frail anti-trust enforcement in Japan in return for Japanese export restraints.

Moreover, the countries buying products from export cartels may, as a practical matter, find it impossible to get relief through attempts to enforce the competition law of their own nation because of jurisdictional, discovery and enforcement problems. Consequently, it is essential to search for an international agreement that incorporates minimum standards for national laws against possible inefficient anti-competitive behaviour by export cartels.

### 3. Treatment of Export Cartels by Major Industrial Countries

Many medieval cities and mercantilist nations were tightly bound by collusive restraints on trade, but the cartel movement is usually pictured as arising with the large private firm in the late 19th century. Cartels were carried farthest in Germany in the half-century ending with World War II. Cartels were also important in Austria, Switzerland, Italy, France, Scandinavia and Japan in the same period. They reached their peak during the great depression of the 1930s. Cartelization was slower to develop in Britain and other countries with a common law tradition such as the United States, although they "caught up" in the second half of the 19th century. A prohibition of contracts in restraint of trade (largely a refusal of the courts to enforce) goes back at least to the early 15th century in English common law.

The purpose of this section is to highlight the main elements involved in the treatment of export cartels by major industrial countries, review any empirical studies regarding the economic effects of such cartels and highlight the opinions of selected commentators or officials. National laws exempting export cartels are essentially similar except with regard to notification requirements. Only four national laws—those of Germany, Japan, the U.K. and the U.S.—provide for certification of *pure* export cartels. Canada and the E.U. exclude pure export cartels from the scope of their cartel law and do not require notification. Perhaps the most important contrast is found in Japan's permissiveness with respect to mixed cartels, which are largely prohibited in most other major jurisdictions.

#### 3.1 Canada

In Canada, an export cartel exemption has been available since 1960. Export cartels were an issue in the run-up to the current Competition Act which entered into force in 1986. Bill C-256, introduced in 1971, proposed that a Competitive Practices Tribunal examine contemplated export cartels to determine whether the agreements were in the public interest. If accepted, the tribunal would have placed the agreement in a public register. It was argued that this increased transparency would guard against domestic spillovers resulting from cooperation in the export market. There was never a question of prohibiting these cartels as *illegal per se*.

The proposal generated strenuous opposition and an alliance of private sector groups sought to torpedo the planned notification procedures. It was generally understood that export cartels were widely used by the resource sectors. Private sector opposition to the proposed changes was vigorous and was presented publicly as follows:

"The enormous importance of Canada's export trade should be recognized and the clear necessity for cooperative arrangements between Canadian corporations in developing export markets should receive greater encouragement than would appear possible under Bill C-256."<sup>19</sup>

The resulting Competition Act excluded "pure" export cartels from the scope of the statute and did not require their notification. Section 45(5) of the Canadian Competition Act exempts, from application of the conspiracy provisions of the Act, combinations which relate solely to exports. Under section 45(6), this exemption can be lost if the combination results or is likely to result in a limitation of the real value of exports of a product, to injure the export business of another, to restrict any person from entering into or expanding in the export business, or to lessen competition unduly in the supply of services facilitating the export of a product from Canada. One implication is that mixed cartels, much like domestic cartels, would be criminally actionable under Section 45 of the Competition Act.<sup>20</sup>

The export exemption in the current Competition Act is broader than its predecessor statute in two respects.

First, the old Combines Investigation Act provided that the exemption did not apply if the export agreement lessened or was likely to lessen competition "in relation to a product in the domestic market". This language was eliminated because it was felt that the emphasis of competition in the Canadian market was preventing firms from freely availing themselves of the export exemption.

Second, whereas the 1986 Competition Act will find a reduction in the *real value* of exports as contravening the exemption, the old Combines Investigation Act would have found the exemption inapplicable if the export agreement reduced the *volume* of exports. Under the old Combines Investigation Act, the unreduced *volume* of output requirement was designed to contain deleterious spillover effects of the export cartel in the domestic market and adverse effects on the supply of inputs to the industry. In contrast, the maintenance of the *real value* of output for exemption means that an export cartel can raise prices and reduce output.

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<sup>19</sup> R.J. Roberts, *Roberts on Competition/Antitrust: Canada and the United States*, Toronto: Butterworth, 1992; and W.T. Stanbury, *Business Interests and the Reform of Canadian Competition Policy, 1971-1975*, Toronto, 1977.

<sup>20</sup> Although pursuant to Section 45 (1), the successful prosecution of such an horizontal arrangement would require proof that it lessens competition "unduly", this is an imprecise term that falls short of a full *per se* prohibition, thereby making successful prosecution more difficult.

Implicit in this amendment is the revealed preference for the use of export cartels as an instrument of strategic trade policy. As long as export cartels can snatch miasmatic rents from foreigners to "us", we continue to compromise our competition policy at the cost of ignoring possible inefficiencies due to the misallocation of resources caused by reduced output and higher relative prices in Canada.

There is not much evidence that export cartels are undergoing a re-assessment in Canada. Professor McFetridge is, however, a significant exception. He presents the export cartel exemption as a form of "managed" commercial policy passing in the guise of competition policy.<sup>21</sup>

### 3.2 United States

A prohibition of contracts in restraint of trade was written into the American Sherman Anti-Trust Act when it was passed in 1890. However, the National Industrial Recovery Act, passed in the depths of the great depression in 1933, permitted industries to formulate enforceable "codes of fair competition". The Act was ruled unconstitutional by the Supreme Court of the United States in 1935. Nonetheless, the U.S. continued public cartels in such fields as coal-mining, oil production, interstate transportation and agriculture for many years. In the years since World War II, most private and public industrial cartels have weakened. The U.S. strengthened its prohibition of private cartels and many public cartels were ended.

Export cartels are exempted from the antitrust laws under the Webb-Pomerene Act (WPA) of 1918, and Title III of the Export Trading Company Act (ETCA) of 1982. These exemptions from antitrust of price fixing and other agreements pertaining solely to export sales are a mercantilist remnant common to the competition policy of most industrialized nations.<sup>22</sup> Although the intent of the laws was partly to permit small domestic firms to penetrate foreign markets more effectively and to secure economies of scale through coordinated marketing, an equally important objective has been to alter the terms of trade and enhance payments balances by allowing domestic producers to exploit whatever power over export prices they might collectively possess. The ETCA of 1982 was a response to, among other weaknesses in the WPA, the assertion that antitrust laws were adversely affecting U.S. export trade. In 1982, the Foreign Trade Anti-Trust Improvements Act (FTATIA) was also

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<sup>21</sup>Donald G. McFetridge, "Globalization and Competition Policy", *Bell Canada Papers on Economic and Public Policy*, 1992.

<sup>22</sup>Fredric M. Scherer and David Ross, *Industrial Market Structure and Economic Performance*, Boston, MA: Houghton Mifflin Co., 1990, p. 324.



passed, with the aim of narrowing the off-shore reach of U.S. antitrust laws against U.S. export cartels.<sup>23</sup>

The WPA of 1918 stipulates that the export association must not be:

- in restraint of trade within the U.S., or
- in restraint of the export trade of any domestic competitor of the association.

On the other hand, the recent amendment to that Act by the ETA of 1982 stipulates that the export conduct must not:

- artificially or intentionally enhance or depress prices within the U.S., or;
- otherwise substantially lessen competition or restrain trade within the U.S..

Both these acts aim to promote what we defined above in section 2 as *pure* export cartels and are instruments of neo-mercantilist trade policy. Nonetheless, mixed export cartels are subject to the same rules as are applicable to purely domestic cartels. That is, domestic effects of a mixed cartel's activities, such as price or quantity fixing, market segmentation and capacity restraints, are per se prohibited.<sup>24</sup> In addition, the Webb-Pomerene exemption does not extend to international export cartels, such as MNCs.

Another interesting issue is whether buyer or import cartels are entitled to a reciprocal exemption from U.S. antitrust law for cooperative business dealings with an Webb-Pomerene exempt export cartel. A Japanese paper manufacturer, Daishowa, and its U.S. subsidiary brought suit against a lumber export cartel, which refused to sell it wood chips. The lumber cartel countered that Daishowa had engaged in cooperative conduct with other Japanese wood chip buyers in dealing with it. Daishowa argued for a reciprocal exemption: it should be

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<sup>23</sup> Title IV of the FTATIA indicates that the Sherman Act would not apply to a particular export transaction and no jurisdiction lies with respect to conduct, whether occurring in the U.S. or abroad, which has effects only in foreign markets. To avail themselves of antitrust immunity, exporters must obtain a certificate. See American Bar Association (ABA), *Special Committee on International Antitrust Report*, 1991, p. 57. However, there may remain some marginal room for rule-of-reason application where the operation of a pure export cartel has some unintended domestic effects. This reading of the U.S. law was confirmed by an official in the Anti-trust Division of the Department of Justice, Washington, D.C., in a conversation on April 29, 1994.

<sup>24</sup> In contrast to the Canadian regime, however, note that so-called naked price fixing and market-sharing agreements are simply illegal; there is no "undueness" test as is required by the Canadian Act. See footnote 20 above.

allowed to participate in a buyer cartel in dealing with an export cartel. The district court rejected Daishowa's contention.<sup>25</sup>

A 1974 OECD report on export cartels, noted that U.S. export cartels did not contribute substantially to an increase in the total exports of the U.S. The report concluded that most American export cartels were operated by large enterprises which allocated territories internationally. Few were composed of small and medium sized firms engaging in joint market research or establishing common distribution systems abroad as had been intended by the law.

As of January 1990, there were 94 trading companies on the list of approved export combines in the U.S..<sup>26</sup> Of the 127 Certificates issued by 1 April 1991, 33% of the companies exported a wide variety of products.<sup>27</sup> Many such trading companies are formed to promote exports from a particular state of the U.S.. In terms of specific products, 30% of these licensed trading firms export agricultural and industrial equipment; 14% food; and 11% wood products.<sup>28</sup>

Commentators on the U.S. export cartel exemption have emphasized both its limited role in trade and its negative effects on the domestic market. Its role, however, turns out to be reasonably important in terms of the proportion of total exports. For example, the 1979 National Commission for the Review of Antitrust Laws and Procedures noted that exports through cartels accounted for only 2.4% of total U.S. merchandise exports between 1958 and 1962. By 1976, the total had shrunk to 1.5% of total U.S. exports. However, by 1982 it had rebounded to about two to three percent of overall U.S. exports.<sup>29</sup>

On the importance of the Webb-Pomerene Act, the evidence gathered for 1975 by the Federal Trade Commission suggests a huge variance across products and product lines. For example, 86% of sulphur was exported through cartel; over 80% of motion pictures and 70%

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<sup>25</sup> American Bar Association (ABA), *Special Committee on International Antitrust Report*, 1991, p. 56.

<sup>26</sup> In the U.S., only the *licensed* trade associations are immunized from prosecution under Section 1 of the Sherman Act, which prohibits contracts, combinations and conspiracies in restraint of trade, and from Section 7 of the Clayton Act, which deals with mergers.

<sup>27</sup> Janusz Ordover and Linda Goldberg, *Obstacles to Trade and Competition*, OECD, Paris, 1993, p. 28.

<sup>28</sup> *Ibid.*

<sup>29</sup> A.R. Dick, "Testing Strategic Trade Policy Theory: A Case of Export Cartels", mimeo., University of California at Los Angeles, 1990, table 2.

of carbon black, 14% of pulp and paper, 8.4% of soybean oil, and 4.6% of machine tools. The study also tested two hypothesis concerning export cartels:

- that they allow individual firms in a country that collectively possess international monopoly power to collaborate to realize monopoly profits; and
- that they allow efficiencies through common sales functions and economies of scale.

The study concluded that foreign consumers benefitted from the efficient cartels and were injured by the monopolistic cartels, and that the effects on U.S. consumers were ambiguous and depended on the extent to which international markets are well integrated. 39% of the licensed companies fixed export prices, 38% were engaged in bid rigging and 67% were involved in buyer-seller agreements. As discussed above in section 2, these practices lead to trade distortions and result in higher prices. Yet, the pursuit of these anticompetitive objectives may not ensure success. The study found that, with one exception, the export cartels were not really able to improve their terms of trade.<sup>30</sup> The study also highlights the welfare losses from domestic spillover effects and cooperation with international cartels.

The above description of export cartels in the U.S. also suggests that, to the extent these trading companies sell their goods in Canada, economic welfare in Canada will be adversely affected. For instance, Canada is a net importer of movies from the U.S., and given that 86% of motion pictures and TV films from the U.S. were exported by cartel, it is a reasonable conclusion that the export cartel exemption in the U.S. has reduced economic benefits to consumers of these goods in Canada.

In sum, there does not appear to be convincing evidence to support the hypothesis that U.S. export cartels have, on balance, added to national economic welfare in the U.S.. On the contrary, they support a wasteful but vigorous rent-seeking industry populated by lobbyists in the U.S.. They inflict product and input market distortions in the U.S. and in its trading partners, such as Canada.

Both liberal and conservative thinkers on antitrust in the U.S. seem to have accepted the export cartel exemption, for apparently neither school opposed the 1982 Export Trading Company Act. Robert Pitofsky, a leading liberal thinker, in his review of the Reagan Administration's cartel policy, states: "...the level of anti-cartel enforcement and the severity of anti-cartel penalties have always been lower than the volume of anti-cartel rhetoric". While not addressing the export cartel issue directly, Pitofsky sees U.S. antitrust thinking being

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<sup>30</sup> *Ibid.*

shaped by competitive challenges from abroad: "One had to reconsider whether the country could afford an antitrust policy that was profligate in its efficiency considerations".<sup>31</sup>

One of the leading intellectual forces in the U.S. for reconsidering the export cartel issue is Eleanor Fox. She encourages the repeal of export cartel exemptions as a means of achieving international market integration.<sup>32</sup> Furthermore, economists such as Ordover and Goldberg have criticized the current standards for exemption as inadequate.<sup>33</sup> An export cartel should be required to demonstrate that it will not harm competition in the home country and that it serves to counter a genuine barrier to competition in the importing country. EU competition policy, which faced the market integration challenge earlier, is proposed as the model to be followed in approaching this issue multilaterally.

### 3.3 The European Union

The European Union's competition law evolved from the perceived need to break down barriers between Member States and thereby form one common market. Accordingly, Community law stresses as its cardinal principle the free movement of goods, services, people and capital across Member State borders. The E.U. member countries' attitudes toward export cartels tend to vary. There is a presumption regarding the adverse spillover effects into the domestic economy from an export cartel, as discussed above in section 2. Countries with small or decreasing shares in export markets may find cartels increasingly irrelevant and their notification process more a nuisance than an effective policy tool.

Pure export cartels are not subject to E.U. competition law. This is because pure export cartel activities undertaken by E.U. firms do not satisfy the two jurisdictional prerequisites set out in Article 85(1) of the Treaty of Rome, namely the effect has to be either within the Union or on inter-member state trade.<sup>34</sup>

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<sup>31</sup> Robert Pitofsky, "Antitrust Policy in a Clinton Administration", *Antitrust Law Journal*, vol. 62, 1993: 217-23.

<sup>32</sup> Eleanor Fox, "The End of Antitrust Isolationism: The Vision of One World", *The University of Chicago Legal Forum*, 1992: 221-40.

<sup>33</sup> Janusz Ordover and Linda Goldberg, *Op. cit.*, 1993.

<sup>34</sup> In the E.U., if enterprises outside the Common Market are party to an unnotified restrictive agreement affecting trade within the Common Market, they cannot qualify for exemption under Article 85(3). A decision may be taken against them if the agreement is contrary to Article 85(1). Source: OECD, "Competition Law Enforcement: International Cooperation in the Collection of Information", Paris, 1984, p.23.

Mixed export cartels are void under Article 85(1) and subject to high fines. This is because these export cartels may affect trade between member states.<sup>35</sup> In short, the thrust of the EU law has been to eliminate export cartels among the member countries, but not vis-à-vis international trade.

### 3.4 Germany

The Western occupation forces in Germany imposed cartel prohibitions there. In Germany, pure export cartels need only be notified. Mixed export cartels must be notified and authorized. The domestic restraints resulting from their activities must be "necessary to ensure the desired regulation of competition in markets outside of German territory".

Agreements or decisions of a pure export cartel may, under certain conditions, be declared to be ineffective (i.e., disallowed) or the participating enterprise may be ordered to discontinue abusive practices. These measures can be taken if the agreements:

- violate principles recognized in international treaties, or
- substantially impair foreign trade and payments.

The German cartel office has, on several occasions, expressed vague public concerns regarding activities by export cartel members exceeding their legitimate areas of cooperation.

The German Ministry of Economics provided the following information on export cartels to an 1981 parliamentary inquiry<sup>36</sup>:

- about 55 export cartels were legally in force in 1981;
- it confirmed a liberal policy in terms of authorization of mixed cartels: no requests had been refused, five requests were "withdrawn";
- export cartels existed for electro-technical products, mechanical engineering, food products, building materials and earth and fine ceramics; and
- fines or serious charges resulting from enforcement are rare.

The Ministry also indicated that it was:

- supportive of stronger international harmonization of legal provisions relating to export cartels; and

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<sup>35</sup> American Bar Association (ABA), *Special Committee on International Antitrust Report*, 1991, p.48.

<sup>36</sup> See Holzler and Braun, "Antitrust Control Over "Pure" Export Cartels: The New German Approach", *Antitrust Bulletin*, 957 (27), 1982.

- ready to enter into closer cooperation to develop multilateral disciplines.

A 1974 OECD Report concluded that the beneficiaries of the German provision were large enterprises that could likely compete effectively without special legislation.<sup>37</sup> Furthermore, countries such as Germany believe that adverse spillovers from export cartels are quite possible. Consequently, they have adopted a hostile attitude towards such cartels.<sup>38</sup>

### 3.5 Japan

Before the Second World War, a substantial share of Japanese business activity was concentrated in the hands of a few giant conglomerate *Zaibatsu* groups. Each group was strong in some lines and relatively weak in others. They came into contact with one another in dozens of markets, especially in the heavy industrial sector. In addition, there were frequent social and matrimonial ties among member of the several families dominating the principal *Zaibatsu*.

Economic historians disagree on the effect these links had on competitive behaviour or the cartelization of the market in Japan. According to one view, a live-and-let-live attitude was encouraged by the fear that aggressive action in a market where one had an edge would be countered by aggression in markets where rivals had the advantage.<sup>39</sup> Another view holds that the principal *Zaibatsu* were "keen rivals", and that they often refused to cooperate with one another in cartel agreements because of confidence in their own superiority, clique rivalries and dissatisfaction with agreed-upon prices and output quotas.<sup>40</sup>

After the Second World War, the U.S. occupation administration imposed cartel prohibitions in Japan. Subsequently, however, the Japanese government has permitted cartels to aid temporarily depressed industries. Depressed industries can form cartels for one year or less if approved by a specified government agency. The weakened state of the industry need

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<sup>37</sup> OECD, "Export Cartels: Report of the Committee of Experts on Restrictive Business Practices", Paris, 1974, p. 49.

<sup>38</sup> Australia and New Zealand have also perceived that such arrangements can be harmful in bilateral trade and have lifted exemptions for trans-Tasmanian trade. See Janusz Ordover and Linda Goldberg, *Op. cit.*, 1993, p.30.

<sup>39</sup> Corwin D. Edwards, "Conglomerate Bigness as a Source of Power", in the National Bureau of Economic Research conference report, *Business Concentration and Price Policy*, Princeton: Princeton University Press, 1955: 331-59.

<sup>40</sup> William W. Lockwood, *The Economic Development of Japan*, Princeton: Princeton University Press, 1954: 228-30.

not derive from a general depression, but the case for such cartels seems strongest in such a setting.<sup>41</sup> No long-term adjustment by the industry is called for and a temporary cartel may be one of the less costly ways of assisting industries seriously hurt by general economic decline. In normal times, occasional bankruptcies may serve to weed out badly managed firms. Economic pressure on a declining industry serves to transfer resources to more productive uses, whereas widespread financial disasters during a depression seem of little social value. The crucial point is that the depression cartel should be truly temporary and that the problem that made the industry "depressed" does not call for long-term adjustments.

Japanese cartel law also provides for "rationalization cartels", which are not so limited in duration as the depression cartels. They also require the approval of the appropriate public agency.<sup>42</sup> Rationalization refers to long-term adjustments by an industry such as the replacement of suboptimal or obsolete capacity or the elimination of excess capacity. It is possible, in theory, that joint action by the cartelized firms in an industry could offer a better solution to excess capacity than a fight to the finish. At least the transition would be less painful if a joint (cartel) decision were made about which plants should be closed and the survivors bought out the firms which were to go out of business.<sup>43</sup> In practice, rationalization cartels have done little of this. In fact, they set price and output levels that have reduced the pressure on their members to adjust. They accomplished little or no rationalization. In general, most rationalization cartels have turned out to be oriented primarily toward the restraint of trade.<sup>44</sup>

The Japanese Antimonopoly Law prohibits export cartels in principle, but the Export and Import Transaction Law exempts pure export cartels, provided that they are notified to MITI and do not use or encourage "unfair business practices". Mixed export cartels also are allowed, but must be authorized by MITI. By contrast, most Western countries treat mixed export cartels as domestic cartels, that is, they are largely prohibited. Japan permissively subjects mixed export cartels to virtually the same substantive requirements as pure export cartels. (In terms of Figure 2 in section 2, the Japanese antitrust authorities are willing to tolerate a domestic price that approaches  $Op^e$  rather than  $OG$ , which the antitrust authorities in the U.S. would normally enforce.) It also departs considerably from most other jurisdictions in terms of pursuing continuous governmental guidance of cartels in terms of industrial and promotion policy. For example, in order to ensure the "sound development of export trade",

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<sup>41</sup> E.M. Hadley, *Anti-Trust in Japan*, Princeton: Princeton University Press, 1970, chapter 15.

<sup>42</sup> E.M. Hadley, *ibid.*, 1970

<sup>43</sup> Alexis Jacquemin and Margaret E. Slade, *op. cit.*, 1989, p. 466.

<sup>44</sup> *Ibid.*

MITI may impose minimum standards for price, quality, quantity or design upon members of export cartels, as well as on non-members. MITI has advised many export cartels to disband when it felt they were no longer serving "national objectives". The approach to cartel enforcement tends to be low-key. Fines and legal action in this area appear to be rare.

Japanese commentators assert that their country's export cartels are not employed for the purposes of extracting rents from foreign markets, but rather for avoiding harm to a foreign industry. Japanese firms are portrayed as having been forced into cartels to raise their export prices either as a means of respecting antidumping settlements (i.e., price undertakings), or for the purposes of avoiding antidumping challenges or accommodating foreign pressure for voluntary export restraints.

Japan has a far higher rate of export cartels than do most other industrial nations. When export cartels were first permitted in the early 1950s, they were used almost exclusively to prevent competition among domestic exporters, most of which were small enterprises engaging in price-cutting to secure sales in foreign markets. However, the mainstream Japanese position is that, as a result of import control measures taken by the U.S. and E.U. since the 1960s, export cartels are a legitimate means of restraining exports to limit international trade disruptions.<sup>45</sup>

In Japan, therefore, the apparent justification for export cartels is not the extraction of rents from foreign markets, which the theory discussed above in section 2 would suggest, or an increase in the ability to compete. Rather, the alleged underlying *rationale is to avoid competitive harm to a foreign industry*. In other words, an implementation of VERs, under MITI oversight, is the alleged rationale for export cartels in Japan.

The Japanese contend that these export cartels are abolished as soon as the need for them disappears. A closer analysis of this claim, however, does not lend support to this view. The export cartels analyzed in one major study lasted longer than would have been necessary to "protect" industries in the importing countries against the surge of Japanese imports.<sup>46</sup>

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<sup>45</sup> Mitsuo Matsushita, "Coordinating International Trade with Competition Policies", in E.U. Petersmann and M. Hilf, (ed.), *The New GATT Round of Multilateral Trade Negotiations*, Deventer: Kluwer, 1991.

<sup>46</sup> A. Jacquemin, T. Nambu and I. Dewez, "A Dynamic Analysis of Export Cartels: The Japanese Case", *The Economic Journal*, 91, 1981; 685-96.



## 4. Policy Implications

### 4.1 Regarding Immunity for Export Cartels

The Antitrust Section of the American Bar Association has called on governments to enter into an agreement to repeal their export cartel structures, at least to the extent that the statutes allow conduct in foreign markets that would be unlawful in their domestic markets. The project also focuses on the issue of increased transparency.<sup>47</sup>

Their recommendation is not intended to eliminate protection for export arrangements that promote efficiency. Rather, it assumes that pro-competitive collaborative export consortia would be acceptable under existing domestic competition statutes provided the joint venture for export sales does not run afoul of domestic antitrust laws.

The Bar addresses the issue of transparency by recommending:

- Explicit government approval of these export consortia;
- Affording affected foreign parties, including foreign governments and private parties, an opportunity to participate, comment and possibly appeal a decision approving such consortia (This would also serve to put the exporters on notice that their joint activity runs the risk of attack in the foreign market, under foreign law, if adequate safeguards are not considered.);
- A mechanism could be developed to resolve international disputes regarding conduct by export cartels alleged to have anti-competitive effects in foreign markets.

Germany is also reflecting on new policy options in this area. Fox indicates that the Max-Planck Institute is in the process of drafting an International Antitrust Code within the framework of the GATT.<sup>48</sup> The code would include an export cartel prohibition, as well as other minimum standards. Contracting parties to the Code would be obliged to enforce its

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<sup>47</sup> *Op. cit.*, 1991.

<sup>48</sup> International Antitrust Code Working Group, "Draft International Antitrust Code as a GAT-MTO-Plurilateral Trade Agreement", *Antitrust and Trade Regulation Report*, (64) 1628, Special Supplement, The Bureau of National Affairs, Washington, D.C., August 1993; and see Eleanor Fox, and Lawrence Sullivan, "Antitrust and the Future: World Markets, Transnational Restraints", *Northwestern Journal of International Law and Business*, Spring 1989, Vol. 10, No. 1, pp. 140-50.

standards.<sup>49</sup> More unusual is the suggestion that an international antitrust authority could be empowered to sue in a contracting party's national court when the contracting party has failed to enforce its law in violation of its obligations. A dispute resolution mechanism is proposed.

#### 4.2 Is There a Case for a Limited Anti-Export Cartel Multilateral Obligation?

It is reasonable to ask whether, in light of the globalization of business, there should be a change of course in competition policy regarding export cartels.

Past efforts to constrain export cartels have not been successful. International cartels were studied in the late 1920s under the League of Nations. Addressing the drift toward cartelization during the Depression and World War II, President Roosevelt declared in 1944 that cartels that restrict the flow of goods in foreign commerce must be curbed. This drive to restrict export cartels was reflected in the proposals for the Havana Charter for the International Trade Organization, which, of course, was still-born.

More recent efforts to discipline various restrictive business practices have faltered. In particular, a Restrictive Business Practices Code and the Transfer of Technology Code begun in the 1970s, broke down over the differences between the industrial and developing countries. The 1976 OECD Guidelines reflect a symbolic success, to the degree that export cartels are at least openly flagged. These Guidelines, among other points, state that enterprises should:

- Refrain from participating in or otherwise purposely strengthening the restrictive effects of international or domestic cartels or restrictive agreements which are not generally, or specifically accepted under applicable national or international legislation.

The OECD updated its recommendation in 1986 urging:<sup>50</sup>

- When considering whether to order or approve export or import limitations, governments of member nations should take into account the effect of such limitations on competition and on their trading partners.

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<sup>49</sup> This assumes, of course, that the evidentiary threshold required for enforcement can be met by authorities.

<sup>50</sup> OECD, *1986 Council Recommendation for Co-operation between Member countries in Areas of Potential Conflict between Competition and Trade Policy, in Competition Policy and International Trade, Instruments for Co-operation*, Paris, 1987.

Currently, governments may attempt to deal with this issue on a government-to-government basis and the principle of comity (respect for the laws and policies of the other government), rather than through litigation in national courts. In the 1980s, the U.S. Department of Justice announced a policy, later withdrawn, that its antitrust authority could sue American subsidiaries of foreign import cartelists where U.S. exporters are excluded from foreign markets by cartel activity. The exclusionary import cartel is often, but not always, the other side of the outbound cartel.

Most national governments have not of late displayed anxiety concerning export cartels. The German government, however, has been openly critical, stating: "...complete control over export cartels with purely national rules cannot be achieved, but rather here at least cooperative international measures to which a majority of nations are prepared to take concerted action are needed."

Lost from sight among these strategies for exploiting and combatting the possible monopoly power of export cartels is the global interest of all countries in competitive markets that equate prices to long-run incremental costs. Such a global solution requires countries to agree that each will do its best to keep its domestic producers competitive, whether they sell at home or abroad.

The critical considerations that should be recognized are:

- Export cartelists can impose higher costs on others and waste resources in building excess capacity in the countries granting them immunity;
- Countries may wish to repeal export cartel exemptions in their national laws, but are understandably reluctant to do so unless major trading partners likewise repeal their exemption and strengthen their enforcement regarding import cartels;
- Over time, there has been an increased international recognition of the costs of permitting lax antitrust enforcement, particularly as a policy tool in response to trade measures.
- Japan's use of domestic and export cartels is part of a historic modus vivendi with Western countries anxious to limit Japanese imports. This accommodation is breaking down. The emerging international agenda on competition policy is, at least in part, motivated by the desire to get Japan to harmonize its institutions and domestic policies for allocating goods, capital and information with those of its trading partners.

There can be efficiency-enhancing activities carried out by export consortia, such as the R&D cartels discussed in section 2.6. Consequently, a *per se* prohibition of export cartels may not necessarily be the most desirable route. It is for consideration, nonetheless, whether the most desirable route multilaterally or in a future NAFTA context would be to encourage an obligation based on the principle of each country deterring their own nationals from cartelizing exports.

As stated previously, efforts to eliminate export cartels and to develop a multilateral framework of competition and enforcement standards have faltered in the past. There is currently little interest in Canada, with some exceptions such as McFetridge, in eliminating the export cartel, particularly as multilateral standards would not likely distinguish between resource sector and industrial cartels.<sup>51</sup> The mood is very much to let sleeping dogs lie.

## 5. Conclusion

The Canadian hands-off policy with regard to export cartels is, in part, based on the idea that a resource economy requires flexibility in increasing the price of its commodities. In an integrating world and continental economy, in which tariff barriers to imports are decreasing, this supposed positive import-export rent-shifting balance is probably illusory. Moreover, in a world where global financial flows are leading to portfolio and direct investments and production facilities in multiple countries, the old distinction between "domestic" or "our" and "foreign" or "their" firms has become blurred. By granting the antitrust exemption to corporations located in "our" country, the domestic government cannot be sure that all purported gains from the export cartel will accrue to domestic residents.

It is for consideration whether broader Canadian interests lie in supporting proposals to repeal the export cartel exemption from competition law. In this regard, any such proposal, at the very least, should be seen as part of the much more comprehensive multilateral or plurilateral review of international competition policy issues and reform of trade remedy practices. In this context, we should work to ensure that the pro-efficiency contributions of export consortia are recognized and permitted, while the potential cartelizing and price-fixing elements are restrained. Moreover, a *per se* prohibition clearly is undesirable. Economic theory indicates that the rule of reason approach is preferable, including when one takes into account the beneficial effects of research collaboration and the dynamic efficiency gains that can be made through the more active participation in the market place of firms that are small or medium-sized on a global scale. In this regard, however, it would be important to develop a number of mutually agreed criteria to guide competition authorities in the different

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<sup>51</sup> Donald G. McFetridge, *Op. cit.*, 1992.

jurisdictions and to guard against the natural tendency of U.S. authorities to assume that the criteria provided for in their antitrust legislation and related case law represent the ideal.

The role of competition policy within North America, including the export cartel issue, might be usefully pursued in the NAFTA context as a precursor to broader multilateral efforts. NAFTA Chapter 15, Article 1504, requires the establishment of a working group on trade and competition. This group is to make recommendations regarding "relevant issues concerning the relationship between competition laws and policies and trade in the free trade area." Strategically, the export cartel question could be one starting point for engaging the U.S. in long-term comprehensive discussions on competition policy and trade remedies. More specifically, discussions regarding cartels, including export cartels, could serve to:

- draw isolationist elements in the U.S. Department of Justice into a process of re-thinking the role of competition policy harmonization and cooperation in an integrating continental market. U.S. antitrust policy is primarily concerned with the promotion of competition in domestic markets. There is a deep-seated suspicion among U.S. antitrust officials that the entanglement of antitrust within international trade agreements could:
  - (a) move antitrust decision-making away from its legalistic orientation toward more politically-oriented international negotiations;
  - (b) shift the centre of the antitrust ethos away from the ideal of free markets toward regulated markets; and
  - (c) focus concerns on supplier interests rather than general welfare.
- build an understanding as to how competition policy could contribute toward deepening NAFTA and indeed multilateral market integration. There is a limited appreciation in the U.S. of the use of antitrust to integrate markets, especially as the American market was integrated through settlement and expansion, rather than the union of politically mature states, as is the case of the E.U.. This step is not necessarily a precursor to achieving the long-term goal of replacing antidumping by competition law within the free trade area. Nonetheless, at the level of principles, antidumping and export cartels are linked in terms of their price-distorting effects. The willingness to consider the elimination of the export cartel exemption under certain conditions and as part of a comprehensive package could lead to the removal of a U.S. practice (cartelization) that has hurt Canadian interests, could help to engage the needed discussion on anti-dumping reform, would signal a commitment to deeper market integration and could strengthen efforts to discipline the Japanese approach to cartelization, which permits mixed cartels and appears to be permissive in practice with

regard to import cartels. This approach recognizes that governments, if markets are to thrive, must restrain the use of selective policy instruments, including antidumping, to improve the terms of trade for domestic firms.

In sum, the mis-use of trade policy as a substitute for international competition policy undermines the multilateral trading system. The net effect could even move beyond bilateral trade friction and result in a form of de-globalization if major countries retreat to defensive trade policy measures. This is the underlying theme in revisionist American trade policy thinking with regard to Japan and in U.S.-E.U. and E.U.-Japan tensions with regard to investment, local content rules, technology issues, etc. The de-globalization of business in the 1930s was marked by a high incidence of cartels which prolonged and intensified the Great Depression. Thus, the re-emergence of concern with international cartelization should be a positive signal to those interested in developing a more complete rules-based trading system.

In the NAFTA context, the cartel issue could be used to spark a policy reconsideration of the long term role of competition policy in an integrating free trade area and the role for competition policy in propelling such integration to support market forces.

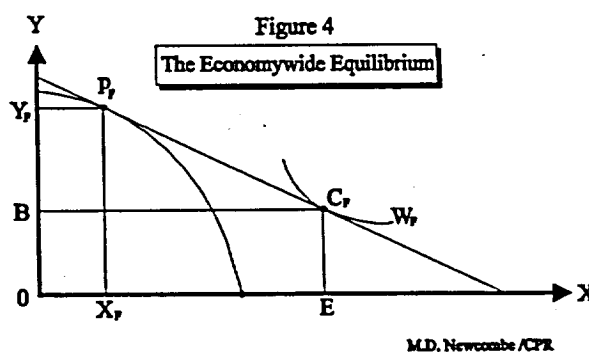
## Annex: An Analysis of Import Cartels

There is a growing perception among policy analysts that the issue of export cartels is linked to that of import cartels. However, a comprehensive examination of the linkage is beyond the scope of this Paper. In this annex, we offer a discussion to motivate further policy thinking with regard to import cartels. We address the following two questions. First, what does the analysis of import cartels suggest about its use as a policy tool for an economy trading in a multilateral, increasingly integrated world economy? Second, why is it that import cartels, as compared to export cartels, are gaining importance on the international agenda?

An import cartel is formed when all the rival companies importing a given product cooperate. The issue of import cartels is interesting for at least three reasons. First, import cartels may be used as a protectionist trade policy tool to limit imports. Second, to tackle export cartels, competition policy authorities may permit formation of domestic import cartels. Third, import cartels may be used as a device to manage demand and the price of crucial inputs, such as resource commodities. The motivation of members of an import cartel is to shape the price and quantity of imports.

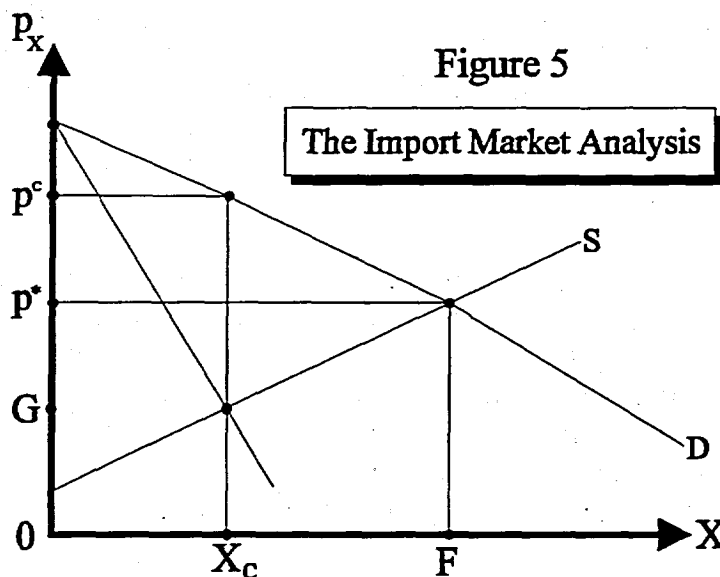
In the following analysis, we will focus on manufacturing sector import cartels on the basis that such import cartels normally operate to raise prices. Not only do the import cartelists of goods make a tidy profit, the domestic producers of the cartelized goods also stand to earn above-normal profits. However, the import cartel results in distorted and higher relative prices of imports. Consequently, the cartel inflicts production and consumption inefficiencies which lower the social welfare in the economy. For an illustration of this conclusion, consider Figures 4 and 5.

In Figure 4, goods X and Y are produced in a perfectly competitive economy at a point, such as  $P_F$ , on its production possibilities curve (labelled  $TT$ ) with a constant returns to scale technology. The world market price of good X (relative to the price of good Y) is represented by



the slope of the line, labelled  $AP_F C_F$ . In free trade: (a) the economy produces  $OY_F$  amount of good Y, of which  $Y_F B$  is sold by its firms abroad; (b) society consumes  $OE$  amount of good X at  $C_F$ , importing  $EX_F$  amount given that it only produces  $OX_F$  of good X; and (c) the country's national income, measured in terms of good X, is  $OA$ . The level of social welfare enjoyed in the economy is represented by the community indifference curve labelled  $W_F$ . In Figure 5, the demand and supply of good X determine the output level at  $OX_F$  and the price at  $Op^*$ .

Suppose that the rival companies importing and distributing good X in the domestic country are now permitted to form an import cartel. To maximize its monopoly profits, the cartel must scale back the level of imports to  $OX_C$  in Figure 5. This reduction in the supply of good X in the home market results in a higher price of  $Op^c$ . **The import cartel members can now make monopoly profits provided the domestic producers of the imported good do not increase their volume and sales of good X.** Because the cartel has fixed the price of good X

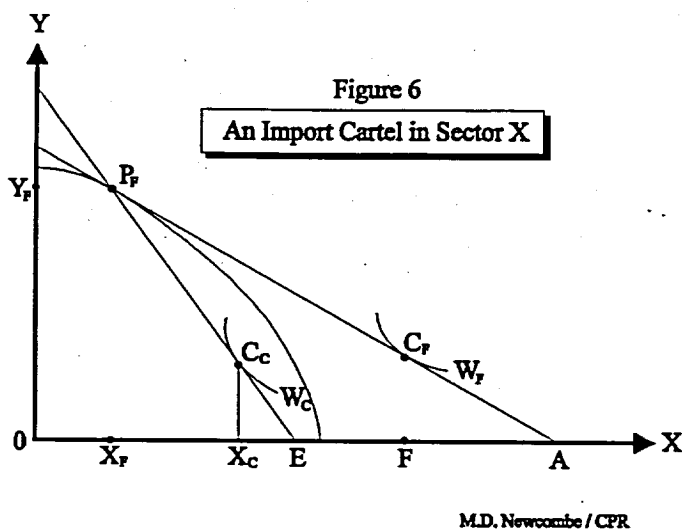


M.D. Newcombe / CPR

above what it would have been in a competitive market, the domestic producers will find it profitable to step up their sales, which will reduce the price of good X and wipe out import cartel profits. Consequently, for the appropriation of monopoly profits the formation of an import cartel is only a necessary, but not a sufficient condition. Explicit or tacit cooperation of domestic producers of the cartelized good and a lack of anti-trust enforcement provide the fuller, sufficient condition to sustain import cartel profits. To ensure such a circumstance, the import cartelists can, among other things, vertically integrate with domestic producers or control them through financial holding companies or through interlocking directorates. Moreover, these anti-competitive arrangements often lead to prohibitions on inward direct foreign investment in the domestic country.

The economy-wide consequences of import cartel formation are analyzed in Figure 6. Assuming that the domestic production of good X does not change, the higher relative price of good X is represented by a steeper sloped relative price line such as  $P_F E$ . With the cartelization of X industry, as compared to the free trade situation (and ignoring the issue of redistributing import cartel's profits), the economy ends up a lower level of social welfare at a point such as  $C_C$  in Figure 6. Production and consumption inefficiencies in the economy have pulled down the national income from  $OA$  to  $OE$ . As a result of the import cartel, society has





become worse off. In sum, import cartel arrangements are profitable to its members at the expense of consumers and end up distorting production and investment decisions in the home and foreign countries. In a multilateral trading world, if one country uses import cartels as a protectionist measure, it will likely encourage the use of this device by other countries. It can lead to a cycle of trade/competition policy tensions which disrupt the flow of goods. A beggar-thy-neighbour process will then begin, leaving all players worse off, including the import cartelists.

The issue of import cartels has been gaining prominence on the international scene for sometime. For instance, import cartels have become a point of contention in U.S.-Japan trade discussions. The U.S. argument is that the *keiretsu* network of firms in Japan is conducive to the formation of import cartels, thus shutting out foreign competitors, especially from the distribution system. Moreover, the political economy of organizing and enforcing an import cartel has parallels and differences relative to export cartels. Successful export cartels need the coordination of policies on world markets and often fail for lack of it. Import cartels are basically domestic corporations that operate by carving up supply of the product in the domestic market. These corporations are much better organized to influence the political process which ultimately determines the trade and competition policy rules. Consumer groups are not that well organized to assert their interests. Consequently, the observed permissiveness toward import cartels is a manifestation of the political success of the pressures exerted by the members of import cartels. The process is often varnished further by a coat of nationalistic gloss attributed to the formation of import cartels as a reaction to trade policy measures, such as voluntary export restraints imposed against the country's exports abroad. Nonetheless, the debate against the import cartel is also more easily joined to the





13. Programme de diversification du libre-échange au lendemain de l'ALENA et des NCM, par Keith H. Christie. Document n° 94/04 (janvier 1994).\*
14. Global Strategies and Foreign Direct Investment: Implications for Trade and the Canadian Economy, par Julie Fujimura. Document n° 94/07 (février 1994).
15. Competition and Trade Policy Interface: Some Issues in Vertical Restraints, by I. Prakash Sharm and Prue Thomson. (À paraître).
16. Competition Policy Convergence : Abuse of Dominant Position, par I. Prakash Sharma, Prue Thomson et Nicolas Dimic. (À paraître).

**B) DOCUMENTS SUR LA PROMOTION DU COMMERCE :**

1. From a Trading Nation to a Nation of Traders : Towards a Second Century of Trade Development, par Andrew Griffith. Document n° 92/05 (mars 1992).
2. Exportation et création d'emplois, par Morley Martin, Document n° 93/06 (juin 1993).\*

**C) DOCUMENTS SUR LE COMMERCE RÉGIONAL ET L'ÉCONOMIE :**

1. Les approches particulières : régionalisme et diplomatie économique canadienne, par Keith H. Christie. Document n° 93/08 (mai 1993).\*
2. Canada in the Americas : New Opportunities and Challenges, divers membres du Groupe de la Planification des politiques (à paraître).
5. China 2000 : The Nature of Growth and Canada's Economic Interests, par Steve Lavergne. (À paraître).

**D) AUTRES DOCUMENTS SUR L'ÉCONOMIE :**

1. Croissance démographique mondiale et mouvements de population : Conséquences pour les politiques canadiennes, par Michael Shenstone. Document n° 92/07 (avril 1992).\*
2. Pour des sanctions efficaces et appropriées, par Jean Prévost. Document n° 93/04 (mars 1993).\*
3. L'or noir : Évolution du marché mondial du pétrole et conséquences pour le Canada, par Shusma Gera. Document n° 93/05 (février 1993).\*
4. Determinants of Economic Growth in Developing Countries : Evidence and Canadian Policy Implications, par Rick Mueller. Document n° 94/08 (avril 1994).
5. Still an Albatross? The LDC Debt Crisis Revisited, par Rick Mueller. (À paraître).

\* Disponible en français - available in English