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Working Group on the Interaction between Trade and Competition Policy

STUDY ON ISSUES RELATING TO A POSSIBLE MULTILATERAL FRAMEWORK ON COMPETITION POLICY

Note by the Secretariat

This document has been prepared under the Secretariat's own responsibility and without prejudice to the positions of Members and to their rights and obligations under the WTO.

The above-noted study, requested at the Working Group's meeting on 1-2 July 2002 (WT/WGTCP/M/18, paragraphs 96-98), is attached. The attached version supersedes the preliminary version (Job (03(31)) which was circulated on 18 February 2003.

The terms of reference for the study (WT/WGTCP/M/18, paragraph 96) are as follows:

"The study would aim to summarize available information that might facilitate an assessment of the costs and benefits of proposals that had been put forward for development of a multilateral framework on competition policy. It would be based on existing literature and public sources, including studies and other documentation prepared by or for UNCTAD, the OECD and the World Bank, and would address the following three main elements:

(a) Examination of issues concerning the relationship between competition policy as it relates to trade and industrial policy, including:

- any trade-offs and complementarities that may arise between the application of competition policy and the attainment of dynamic efficiency gains in developing countries;

- historical experience regarding the relationship between competition and industrial policy;

- the implications of possible provisions relating to non-discrimination, transparency, procedural fairness and hardcore cartels for national industrial/economic policy options, and national experience in this regard;

(b) Examination of issues and compilation of available empirical data relevant to the resource implications of adopting and effectively implementing a multilateral framework on competition policy, including provisions relating

to hardcore cartels, transparency, procedural fairness and responding to requests for voluntary cooperation.

(c) The impact of competition law and policy in tackling anti-competitive practices of firms in a developing country setting."

The study was requested in response to the mandate for technical assistance provided in paragraph 24 of the Doha Ministerial Declaration. Paragraph 24 reads, in pertinent part, as follows:

> "24. We recognize the needs of developing and least-developed countries for enhanced support for technical assistance and capacity building in this area, including policy analysis and development so that they may better evaluate the implications of closer multilateral cooperation for their development policies and objectives, and human and institutional development."

In particular, the study aims to respond to the demand for policy analysis and development to assist Members to better evaluate the implications of closer multilateral cooperation for their development policies and objectives.

As the Working Group has been informed (WT/WGTCP/M/19, paragraph 91), the study has been prepared by a consultant, Dr. Simon J. Evenett, Director of Economic Research at the World Trade Institute, University of Berne. It is based entirely on existing literature and public sources, including documentation prepared by other intergovernmental organizations.

The attached version incorporates comments that were made by various delegations at the Working Group's meeting of 20-21 February in addition to written comments received subsequently from the delegations of Korea and Thailand.

Members with any comments may direct them to Mr. Rob Anderson (tel: 022 739 51 98; fax: 022 739 57 90; email: robert.anderson@wto.org).

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Executive Summary

1. This study examines three issues relevant to the work of the Working Group on the Interaction between Trade and Competition Policy. These are:

- possible trade-offs and complementarities between competition policy and industrial policy, both in theory and with reference to historical experience, and the implications of a possible multilateral framework on competition policy in this regard. A key focus here is on whether and in what circumstances the application of competition policy is likely to facilitate or impede the realization of dynamic efficiency gains;
- possible resource implications of adopting and effectively implementing a multilateral framework on competition policy. This includes, but is not limited to, consideration of the resource implications of: (i) adopting a national cartel law and enforcement regime; and (ii) possible modalities of voluntary cooperation; and
- the impact of competition law and policy in tackling anti-competitive practices of firms in a developing country setting.

2. The study is based entirely on existing economic, legal and developmental literature and empirical information that is available from public sources. Where appropriate, the study has attempted to set out the different perspectives that have been advanced in discussions among and between policymakers, practitioners, and scholars. Considerations of space have required a rigid focus on the issues set out in the terms of reference. Consequently, many not directly-related matters—that are often the subject of vigorous debates among, in particular, scholars—have been omitted.

3. With regard to the first issue referred to in paragraph 1, Part I of the study identifies and discusses four arguments that have been put forward in the relevant economic and developmental literature as to how the attainment of dynamic efficiencies might be compromised by the adoption or enforcement of competition law. Analysis of these arguments reveals that one is sector-specific and not of general application, another does not really constitute a case for *restricting* rivalry between firms, and the remaining arguments have substantial shortcomings. The study goes on to identify five sources of complementarity between competition policy and dynamic efficiency gains that have been advanced in the literature. At least three of these have been shown to have a solid empirical basis. With some potentially important exceptions of a sectoral nature, then, the weight of the evidence suggests that measures to stimulate competition between firms tend to promote rather than impede dynamic efficiency gains and economic growth..

4. Part I of the study also includes an examination of historical experience relating to the interaction between competition and industrial policy in several Asian economies. This reflects the prominence given to the experience of these economies in relevant economic literature and policy debates. An important finding in this regard is that, even when measures to restrict the degree of inter-firm rivalry were employed by some of these economies, subsequent research and policy analyses have found that, in many cases, these measures were unimportant or worse, counterproductive. Reflecting this, recently, the economies examined in this part of the paper have reduced their reliance on policy tools that may limit competition and placed greater weight on the promotion of competition as a means of ensuring satisfactory long run performance.

5. Even though these conceptual, empirical, and historical observations cast doubt on the wisdom of constraining competition between firms as means of improving long-term economic performance, it is recognized that, from time to time, most governments will

choose to limit competition at least in some sectors as a means of pursuing their diverse economic, social, and developmental goals. In this regard, the study describes five distinct means by which any perceived tensions between these goals and the enforcement of competition law have been managed in jurisdictions with active competition regimes. The study then goes on to examine whether these five means can be reconciled with current proposals for a multilateral framework on competition policy. It concludes that, by and large, they can be – implying that a multilateral framework on competition policy of the type that is currently being contemplated, while facilitating the effective application of competition policy by WTO Members in various ways, is unlikely to prevent governments from pursuing other policy goals or even from implementing policies that may sometimes limit competition in ways that they have traditionally done so.

6. With regard to the resource costs of adopting and effectively implementing a multilateral framework on competition policy, Part II of the study identifies, for each of the main elements of a multilateral framework that are described in the current proposals, the types of resource implications that might arise. Empirical data on this subject is sparse; nevertheless, the study sets out what is available, particularly regarding the costs of operating a national competition authority, and offers a number of cautions as to how this data should be interpreted. An important premise of this part of the study is that the costs of the current proposals need to be assessed in light of the benefits foreseen. For example, although measures to promote voluntary cooperation between the competition agencies of WTO Members, including developing country Members, would undoubtedly entail some (probably modest) resource costs, the purpose of such measures is indeed to save resources by enabling countries to obtain necessary information and to take appropriate enforcement actions at a lower cost than would otherwise be the case. More generally, the *nature and magnitude* of many of the benefits of a potential multilateral framework are likely to depend critically on the *magnitude* of the resource costs that a WTO Member is willing to bear.

7. With regard to the third major set of issues included in the terms of reference, namely the impact of competition law in tackling anti-competitive practices in developing countries, Part III of the study examines recent records and other publicly available information regarding the enforcement of competition law in such countries. Perhaps surprisingly, extensive information of both a qualitative and quantitative nature is available with regard to the enforcement activities of an increasing number of developing and transition countries with active enforcement regimes. One of the striking findings in this regard is the number of cartel enforcement actions and, in particular, the number of bid rigging cases where the state has been the target of a conspiracy.

8. This part of the study goes on to describe recent empirical economic research on the impact of competition law enforcement on macroeconomic performance and price-cost margins. This literature is very much in its infancy but it does point to the beneficial effects of tackling anti-competitive practices in developing economies.

9. The remainder of Part III of the study is devoted first to describing the extent of international cartel enforcement efforts in the 1990s and then to assessing the likely effects of enhanced enforcement against cross-border hardcore cartels operating in developing economies. Based on publicly available information, estimates are presented of the value of developing country imports affected by private international cartels in the 1990s as well as of the overcharges paid by customers in these countries. The evidence is overwhelming that the latter run into the billions of United States dollars per annum. In the case of one ten year-long cartel with global reach (the international vitamins cartel), the evidence also shows that countries without active cartel enforcement regimes paid considerably more in overcharges than countries with such regimes. This reinforces the view that there are likely to be substantial net benefits, particularly to developing countries, from strengthening national anti-

cartel enforcement efforts and international cooperation in this area – which of course are two of the principal goals of a multilateral framework.

I. THE RELATIONSHIP BETWEEN COMPETITION POLICY AS IT RELATES TO TRADE AND INDUSTRIAL POLICY

10. As called for by the terms of reference, this part of the study addresses a number of issues that concern the relationship between competition policy, particularly as it relates to international trade and trade policy, and industrial policy. This part of the study will make reference to both theoretical and empirical literature and other public sources.

11. The discussion begins with a review of the key concepts used in the extant literature. Thereafter, the leading characterizations of competition and industrial policy are presented. The study then reviews and assesses the various possible trade-offs and complementarities that are identified in the pertinent theoretical and empirical literature. Particular attention is given to experience of various Asian economies, in the light of the prominence that has been accorded to these economies in economic literature and policy debates within and outside the WTO Working Group. Various ways in which possible tensions between competition law and the attainment of dynamic efficiency gains, to the extent that such tensions arise, are managed in jurisdictions having effective national competition regimes are then identified. This part of the study concludes with a discussion of the possible implications of relevant provisions of a multilateral framework on competition policy for national industrial and economic policy options.

A. KEY CONCEPTS IN THE LITERATURE

12. Before examining the interconnection between competition, trade, and industrial policies, it will be useful to clarify as far as possible some key terms used in the extant literature.

13. To begin with, it will be useful to distinguish between the *final* and *intermediate* objectives of a policy.[1] The former relate to the ultimate goal that the policy is intended to achieve and not to some proximate goal. The latter can be some goal, perhaps even an important goal, that must be accomplished before the final objective can be attained. For example, as will be discussed at greater length later, some scholars believe the ultimate goal of competition policy is to further economic development, and that this can be accomplished through faster economic growth (amongst other means). The same scholars take the view that raising investment outlays by firms stimulates economic growth and that, using the terminology introduced above, increasing investment expenditures is an intermediate objective of competition policy. (It is not the purpose of the current discussion to assess the validity of these claims; that matter will be taken up later.)

14. Nothing prevents a competition or industrial policy from having multiple final or intermediate objectives—a point that will also be discussed at greater length later.

15. The objectives of policy are to be further distinguished from the instruments that a government has at its disposal to secure those objectives. These instruments include measures that a state, court, or their delegated representatives are empowered to take.

16. The concept of efficiency is widely used in discussing the objectives of competition and will be used extensively in this part of the study. Voluntary economic exchange, by

[1] For alternative accounts of the objectives of competition policy see Graham and Richardson (1997, pages 8-13) and American Bar Association (2003, in particular sections III and IV).

definition, involves a purchaser paying an amount for a good that is equal to or less than the most they would be willing to pay for that item. The difference between the amount actually paid and the most that a customer would be willing to pay is known as the consumer surplus of the transaction. Producers, on the other hand, will supply a good if the price they receive from selling it equals or exceeds their incremental costs, and this difference is called the producer surplus of the transaction. Adding across all transactions, the individual consumer and producer surpluses yields the *sum* of the *total* producer and consumer surpluses of a given market outcome or outcomes. Economists then define a market outcome to be efficient if there is no other way to organize the exchanges in the same market so as to increase the sum of total producer surplus and consumer surplus.

17. The concept of efficiency has both static and dynamic aspects. Static efficiency refers to maximization of the benefits of voluntary exchange at a given point in time; that is, maximizing the sum of producer and consumer surpluses in a given market *at a point in time*. Dynamic efficiency refers to the maximization of the sum of such surpluses *over time*. The latter takes account, in particular, of the impact of technical progress, innovation, and investments of various types. It should also be noted that a link between dynamic efficiency and commonly-used and observable measures of long-term economic performance, such as economic growth, is often implied—if rarely stated—in the extant literature on the role of competition policy in economic development.

18. When describing the concept of efficiency, some have found it useful to take a different tack and distinguish between four different types of efficiency. Kolasky and Dick (2002), for example, differentiate between allocative efficiency, productive efficiency, dynamic efficiency, and transactional efficiency, each of which is described in Box I.B1.

Box I.B1: An alternative characterization of the types of efficiencies

Kolasky and Dick (2002) provide a taxonomy of efficiencies. The first notion of efficiency they consider is allocative efficiency which they describe as follows:

"At the most general level, a market is said to achieve "allocative efficiency" when market processes lead society's resources to be allocated to their highest value use among all competing uses. In the context of market exchanges between consumers and producers, the allocative efficiency principle can be restated more specifically to say that the value of a product in the hands of consumers is equalized "at the margin" to the value of the resources that were used to produce that product."

"This intuitive "equality at the margin" condition ensures that an economy maximizes the aggregate value of all of its resources by placing them in the highest value uses. Starting from an efficient market allocation, if a firm were to produce one additional unit of the product, the resource cost to society would exceed what consumers were willing to pay for that last unit. Total social welfare thus would fall as a result. By the same token, if the firm cut production by one unit, the loss that consumers would suffer would exceed the value of the saved resources in whatever alternative use they were deployed. Again, total welfare would fall as a result" (page 49).

Kolasky and Dick then go on to discuss the concept of productive efficiency:

"Production is said to be efficient when all goods are produced at minimum possible total cost. An equivalent way of phrasing the productive efficiency criterion is to say that there is no possible rearrangement or alternative organization of resources (such as labor, raw materials, and machinery) that would increase the output of one product without necessarily forcing a reduction in output for at least one other product. This restatement highlights the

principle that firms' choices involve explicit trade-offs between competing demands for scarce resources" (pages 51-52).

Dynamic efficiency is the third type of efficiency discussed by Kolasky and Dick:

"Whereas allocative and productive efficiency can be viewed as static criteria—holding society's technological know-how constant—a more dynamic view of efficiency examines the conditions under which technological know-how and the set of feasible products optimally

can be expanded over time through means such as learning-by-doing, research and development, and entrepreneurial creativity" (page 56).

Transactional efficiency is the fourth type of efficiency discussed by Kolasky and Dick. They note that:

"…market participants design business practices, contracts, and organizational forms to minimize transaction costs and, in particular, to mitigate information costs and reduce their exposure to opportunistic behavior or [so-called] "hold ups"' (page 58).

Business practices may differ in the magnitude of the costs that parties must incur in order to transact with one another and, therefore, some practices may be more "efficient" than others in this regard.

B. THE OBJECTIVES AND INSTRUMENTS OF COMPETITION POLICY AND INDUSTRIAL POLICY

1. Competition policy

19. Over the last one-hundred or so years there has been an evolution in the importance given to different objectives of competition policy. The goal of the following paragraphs is to describe that evolution and to highlight its relevance for the current discussions over the potential content of a multilateral framework of competition policy. The goal here is *not* to assess the merits of different stated objectives of competition policy[2] and the fact that any objective is listed below should not be taken as an endorsement of that objective.

20. Initially, protecting market processes and rights to engage in commerce were accorded a high priority, as the following quotation from a joint World Bank and OECD study points out:

> "While many objectives have been ascribed to competition policy during the past hundred years, certain major themes stand out. The most common of these objectives cited is the maintenance of the competitive process or of free competition, or the protection or promotion of effective competition. These are seen as synonymous with striking down or preventing unreasonable restraints on competition. Associated objectives are freedom to trade, freedom of choice, and access to markets. In some countries, such as Germany, freedom of individual action is viewed as the economic equivalent of a more democratic constitutional system. In France emphasis is placed on competition policy as a means of securing economic freedom, that is, freedom of competition" (World Bank-OECD 1997, page 2).

21. This quotation suggests that protecting economic freedom and competitive processes as well as fairness have historically been seen as objectives of competition policy in many countries. In a similar vein, the new competition law of India refers, in its preamble, to the objectives of preventing practices having adverse effects on competition, promoting and

[2] There is a fairly rigorous debate on this subject see, for example, the references in footnote 1.

sustaining competition in markets, protecting the interests of consumers, and ensuring freedom of trade carried on by other participants in markets in India.[3]

22. Only after competition laws were enacted did a school of thought develop that justified certain competition laws on the grounds that they resulted in improvements in economic efficiency. In fact, the logic of static analyses of efficiency in markets and the rhetoric of "protecting the competitive process" as well as a focus on consumer welfare often went hand in hand. Posner (1976), for example, was to argue in his seminal treatise on US antitrust law that the "fundamental objective" of such law is "the protection of competition and efficiency" (Posner 1976, page 226). This perspective gained considerable currency and accounts for the role that static economic efficiency still plays in the implementation of competition policy.

23. More recently, a wide range of opinion has stressed the importance of dynamic efficiency as a legitimate and compelling objective of competition policy. For example, Singh (2002) argues that competition policy in developing economies should support the overall development path of an economy. He points to:

> "the need to emphasise dynamic rather than static efficiency as the main purpose of competition policy" (Singh 2002, page 22).

24. In a related vein, Audretsch *et al.* (2001), Baker (1999), Baumol (2001), and Posner (2001) make the point that the nature of technologies or consumer preferences in certain industries and/or the fast pace of innovation in some industries, call for a reassessment of the weight given to static efficiency as an objective of competition policy. Consistent with this view, as will be discussed below in greater detail[4], in many jurisdictions with active competition regimes the promotion of innovation or dynamic efficiency gains has become an important goal of competition policy, and the application of competition law explicitly takes account of this objective. For this reason, it is misleading to suggest that competition policy as it is currently practiced in major jurisdictions attaches little or no importance to considerations of dynamic efficiency. For the moment, however, it suffices to note that scholars of market processes in developing and industrial nations increasingly point to the importance of dynamic efficiency considerations as an appropriate objective of competition policy. Moreover, concerns about dynamic efficiency are not the sole preserve of either wealthier or poorer economies.

25. As well, it should be noted that many states have explicitly introduced other objectives into their national competition laws. For example, as has been noted in the WTO Working Group, the Competition Act of 1998 in South Africa states that:

> "The purpose of this Act is to promote and maintain competition in the Republic in order-
>
> (a) to promote the efficiency, adaptability and development of the economy;
>
> (b) to provide consumers with competitive prices and product choices;
>
> (c) to promote employment and advance the social and economic welfare of South Africans;

[3] India, The Competition Act, 2002 (No. 12 of 2003), available on the Internet at http://dca.nic.in/competition_act2002.pdf

[4] See sections C and E of Part I, below.

(d) to expand opportunities for South African participation in world markets and recognise the role of foreign competition in the Republic;

(e) to ensure that small and medium-sized enterprises have an equitable opportunity to participate in the economy; and

(f) to promote a greater spread of ownership, in particular to increase the ownership stakes of historically disadvantaged persons" (Chapter 1, article 2).

26. This multiplicity of goals reflects the fact that:

> "A fundamental principle of competition policy and law in South Africa thus is the need to balance economic efficiency with socio-economic equity and development" (Introduction, web page of the South African Competition Commission, http://www.compcom.co.za/aboutus/aboutus_intro.asp?level=1&desc=7).

This example demonstrates that competition law need not be directed towards a single objective.

27. Turning now to the instruments of competition policy, it is important to recognize that such policy can be concerned both with private anti-competitive practices and with government measures or instruments that affect the state of competition in markets. For example, trade barriers, barriers to foreign direct investment, and licensing requirements (amongst others) can influence the extent of competitive pressures in markets and so are seen by many researchers as appropriate concerns of competition policy.

28. In many jurisdictions, the anti-competitive effects of government measures are addressed through the instrument of competition advocacy activities. In a report to the International Competition Network, its Advocacy Working Group defined this instrument as follows:

> "Competition advocacy refers to those activities conducted by the competition authority related to the promotion of a competitive environment for economic activities by means of non-enforcement mechanisms, mainly through its relationship with other governmental agencies and by increasing public awareness of the benefits of competition" (ICN 2002, page i).

29. The potential contribution of competition advocacy activities to national economic performance has been discussed extensively in the WTO Working Group on the Interaction between Trade and Competition Policy. An overview of the different types of competition advocacy is provided in Box I.B2.

Box I.B2: Competition advocacy

The growing importance attached to competition advocacy is described by Anderson and Jenny (2002).[5]

"Apart from the potential benefits for developing countries of appropriate competition law enforcement activities, discussions in the WTO Working Group on the Interaction between Trade and Competition Policy and other fora such as the OECD Global Forum on

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[5] For an account of the importance of competition advocacy in the transition economies, see Kovacic (2001) pages 291-292. For a discussion of the role of competition advocacy in Canada, see Anderson *et al* (1998).

Competition Policy have called attention to the importance of so-called competition advocacy activities. These may include public education activities, studies and research undertaken to document the need for market-opening measures, formal appearances before legislative committees or other government bodies in public proceedings, or "behind-the-scenes" lobbying within government. These, it has been suggested in the Working Group, may be among the most useful and high payoff activities undertaken by agency staff" (page 7).

Anderson and Jenny (2002) go onto to discuss the particularly strong link between competition advocacy and regulation:

"The importance of competition advocacy activities arises partly in relation to regulation. Of course, in both developed and developing economies, regulation can and often does serve valid public purposes. For example, it is well-established that regulation can be an efficient

response to market failures such as imperfect information, the existence of a natural monopoly (a situation in which a market is most efficiently supplied by a single firm) and other such problems. Nonetheless, it is important to recognize that, notwithstanding its avowed aims, regulation often thwarts rather than promotes efficiency and economic welfare. This is likely to be the case, for example, where it imposes restrictions on entry, exit and/or pricing in non-natural monopoly industries. In fact, experience in both developed and developing countries shows that, in many cases, rather than having regulation imposed on them for the public benefit, incumbent firms have often sought regulation for their own benefit, for the purpose of limiting entry into the industry and helping them to enjoy higher prices for their products. Recognition of the significance of such conduct as a formidable barrier to economic development dates back at least to Krueger (1974), and is affirmed in recent analyses by the World Bank and other development-related agencies. In the light of this, efforts to remove inefficient regulatory restrictions and related interventions can be central to the establishment of healthy market economies in developing and transition economies" (page 7).

30. Notwithstanding the importance attached to competition advocacy in both national competition regimes and the work on competition policy in international organizations, another instrument—namely competition law and its enforcement — is at the center of competition policy in many countries. Audretsch *et al.* (2001) describe the role of competition law as follows:

> "Competition (or antitrust) law lays down the rules for competitive rivalry. It comprises a set of directives that constrain the strategies available to firms" (page 614).

31. Hoekman and Holmes (1999) add more specificity by defining national competition law:

> "as the set of rules and disciplines maintained by governments relating either to agreements between firms that restrict competition or to the abuse of a dominant position (including attempts to create a dominant position through mergers)" (page 877).

32. UNCTAD (2002a) provides a list of firms' actions that can fall within the purview of competition law. Although there is no agreed list of the elements of competition law, the following five figure prominently in most accounts of such laws:

1. Measures relating to agreements between firms in the same market to restrain competition. These measures can include provisions banning cartels as well as provisions allowing cartels under certain circumstances.

2. Measures relating to attempts by a large incumbent firm to independently exercise market power (sometimes referred to as an abuse of a dominant position).

3. Measures relating to firms that, acting collectively but in the absence of an explicit agreement between them, attempt to exercise market power. These measures are sometimes referred to as measures against collective dominance.

4, Measures relating to attempts by a firm or firms to drive one or more of their rivals out of a market. Laws prohibiting predatory pricing are an example of such measures.

5. Measures relating to collaboration between firms for the purposes of research, development, testing, marketing, and distribution of products.

33. This list of five instruments is not supposed to be exhaustive, nor is it meant to suggest that each element is given the same weight or referred to in the same terms in each country with a functioning competition law.

34. It is worth noting, as well, that competition law and advocacy are not entirely separate spheres: in many countries, advocacy activities are explicitly authorised by relevant national legislation. For example, the competition laws of both Canada and India contain specific provisions relating to competition advocacy activities.[6]

2. Industrial policy

35. The <u>characterization of industrial policy</u> in the extant literature is considerably less precise than in the case of competition policy; consequently, a number of different perspectives are described in detail below.

36. A recurring theme is that an objective of industrial policy in developing economies is to facilitate a "structural transformation" of their economies. Singh (2002) puts it this way:

> "…the crucial importance of industrial policy is to achieve structural changes required for development" (page 22).

37. Likewise, in their survey of developing countries' industrial policies, Dervis and Page (1984) argue:

> "In the period following the Second World War, structural change in favour of industry was viewed as a necessary pre-requisite for modernisation and growth in most, if not all, developing economies. The primary objective of their industrial policy was to speed up the process of industrialization in order to achieve levels of industrial development that were comparable with those in Europe and North America" (page 436).

[6] See, in the case of Canada, the Competition Act (R.S. 1985, c. C-34), sections 125 and 126, and in the case of India, the Competition Act 2002 (No. 12 of 2003), Chapter VII.

38. Pugel (1984) in his analysis of post-war Japanese industrial policy strikes a similar note:

> "Japan's industrial policy in general aims at achieving real economic growth by encouraging shifts in resources to more productive uses, both shifts within firms and industries and shifts in the relative sizes of different industries" (page 421).

39. Using the terminology developed earlier, the final objectives of industrial policy appear to be faster national economic growth and economic development; the intermediate objectives are to expand the output of those sectors with high value added or the potential for considerable growth of value added. It is worth emphasizing that not every industry need—on the definitions above—be identified as high value added or having prospects for fast growth. Furthermore, nothing in principle prevents a non-industrial sector—such as a service or an agricultural sector—from being so identified.

40. Some scholars are unsatisfied with the available definitions of industrial policy and have detected other objectives for industrial policy. For example, Bora *et al.* (1999) argue as follows:

> "It should be pointed out at the outset that the term 'industrial policy' is not a well-defined one. It is ill-defined in relation to its objectives, the industries that are covered and the instruments that are used. The World Bank (1993)[7] has provided a working definition of industrial policy as 'government efforts to alter industrial structure to promote productivity based growth.' This definition is useful since it focuses on the objective of economy-wide factor productivity growth rather than on merely changing the structure of outputs."

> "With regard to objectives, many developing countries have in mind the potential for long run productivity growth improvements. However, in most cases industrial policy is pursued with multiple objectives, increasing short-term employment, increased output, better income distribution and enhancing technological capacity. They are often also, rightly or wrongly, non-economic objectives of national pride and prestige, as well as the perceived need to promote 'strategic' domestic industries."

> "These objectives are further confused to the extent that many developing economies have taken the view that ownership of assets matter. There is a concern that foreign ownership may not always fit in well with broader development objectives, including enhancing domestic capabilities. In some cases, foreign ownership could crowd out domestic firms. Thus, even if the World Bank definition is adopted…the fact remains that developing countries have raised concerns about the source of growth" (Bora *et al.* 1999, pages 1-2).

41. In sum, then, there appears to be a multiplicity of objectives of industrial policies employed by developing economies.

42. Like competition policy, there appears to be no accepted set of instruments that are considered as part of industrial policy. Several characterizations of this set can be found in the literature. In his path-breaking and heterodox analysis of East Asian industrialization, Wade (1990) differentiates between functional and sectoral policy instruments. The latter he defines as follows:

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[7] Here Bora *et al.* are referring to the World Bank's well known study titled *The East Asian Miracle*.

> "A sectoral industrial policy aims to direct resources into selected industries so as to give producers in those industries a competitive advantage" (page 13).[8]

43. In contrast, functional policy instruments affect either economy-wide factors (such as the supply of engineers or the price of energy) or, in principle, alter in the same manner firms' or investors' incentives irrespective of the industry or sector in which they operate. An example of a functional instrument of industrial policy would be an economy-wide investment subsidy or tax credit.

44. Tilton (1996) identified two types of industrial policy instrument in his analysis of postwar Japanese economic performance. The first instrument is described below:

> "The principal way industrial policy functions here is by allocating resources to favoured sectors. It can do so through policies that directly provide resources to industries, such as tax breaks, loans, subsidies, and import protection. More important, however, have been policies to reduce competition between firms…Industrial policy may also support industry by providing or helping to circulate information about market or technological opportunities" (pages 2-3).

He goes on to add:

> "A second form of industrial policy, strategic trade policy, seeks to appropriate the benefits of strategic industrial sectors by promoting them at home and helping them gain a larger share of world markets" (page 3).[9]

45. For the purposes of this study, Tilton's characterization of industrial policy is important because it highlights that some competition policy and trade policy instruments are also seen by some as industrial policy instruments.

46. Pangestu (2002) presents perhaps the most exhaustive categorization of the instruments of industrial policy:

> "In practice, countries have used a wide range of instruments in the name of industrial policy. These can be categorized as external, product, and factor market interventions."
>
> "*External market interventions* involve protecting domestic industries from imports, using instruments such as import tariffs, quotas, licensing, and local content programs, as well as export promotion measures to assist industries to catch up and break into new markets. Common export promotion instruments are export subsidies, export promotion zones, and subsidized credit (sometimes tied to export targets)."

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[8] Noland and Pack (2003) define selective industrial policies in a similar manner to Wade's definition of sectoral policies. This observation is of interest as Noland and Pack present an orthodox or neoclassical perspective on East Asian development that reaches very different conclusions than those found by Wade.

[9] Strategic trade policy involves the setting of national trade policies—such as tariffs—so as to enable a domestic sector to reap greater economies of scale from the protected home market or to enable the sector to expand output and lower costs through so-called learning-by-doing effects. Both of these result in lower production costs enabling a nation's exports to, in principle, expand export sales. In addition to expanding the output of the domestic industry, proponents of strategic trade policy note that it can result in profits being effectively "shifted" from foreign firms to domestic firms.

> "*Product market interventions* to promote competition in domestic markets include competition policy (to ensure fair competition between domestic players as well as for foreign players) and domestic market entry regulations."
>
> "*Factor market interventions* include policies such as performance requirements and restrictions on foreign direct investment (FDI) designed to influence the operations of foreign affiliates so that the host country realizes a net benefit from FDI. Factor market interventions in the capital market and the financial sector are aimed at correcting financial market imperfections, promoting infant industries, and protecting or phasing out declining industries. These measures include setting up development finance institutions, providing direct capital subsidies to selected industrial enterprises, furnishing capital subsidies and capital assistance to declining or mature industries and providing priority access to credit (often at subsidized rates) by requiring financial institutions to lend to particular sectors or types of companies. Intervention in the labor market may have efficiency and equity objectives. The former have to do with human resource development through education and training; the latter include minimum wage requirements and social safety net schemes" (pages 150-1).

47. Pangestu's characterization of the instruments of industrial policy is of interest for a number of reasons. First, her characterization highlights how the enforcement of competition law is *one* of the large number of policy instruments associated with industrial policy. This is important because it implies that the preponderance of industrial policy instruments will fall outside of the domain of a potential multilateral framework on competition policy, as currently conceived of by its proponents. Second, Pangestu presumes the goal of competition law here is to promote rivalry and not to restrain it as Tilton suggested. This the first hint of divergent views as to the contribution of rivalry between firms to economic development.

C. COMPETITION POLICY AND DYNAMIC EFFICIENCY: TRADE-OFFS AND COMPLEMENTARITIES

48. The purpose of this section of the study is to describe the key conceptual linkages between the implementation of competition law and the factors which are thought to influence dynamic economic efficiency. Following this, section D addresses experience concerning the relationship between competition and industrial policy in several Asian economies. Taken together, these discussions will provide an overview of the subtle and various interconnections between these two policies and the processes of economic development.

49. To establish a point of departure, recall that in a competitive market in the absence of government interventions, asymmetries of information, impediments to the entry and exit of firms, and anti-competitive practices by firms, prices and quantities will settle down to levels that generate economically efficient outcomes at a given point of time; ie. attaining static efficiency. In this situation, the prices that consumers pay for a good will equal the incremental (or marginal) costs of the firm that produced the last unit of the good. Cartelization and collusion by firms, which raise prices above incremental costs, will result in a market outcome where the sum of producer and consumer surpluses fall below the level attained with static efficiency. Consequently, measures to enforce competition laws that encourage firms to compete (or discourage or prevent firms from resisting rivalry) will improve the allocation of resources, by making market outcomes move towards the statically efficient outcome.

50. In general, therefore, tensions are unlikely to arise between the appropriate enforcement of competition laws and the attainment of efficiency in a static sense.[10] But does the enforcement of competition law and inter-firm rivalry impede the attainment of *dynamic* efficiencies, and thereby the *long-term* performance of economies? This question is the focus of the next subsection of the study.

1. Possible trade-offs between competition law enforcement and dynamic efficiency gains

51. This section of the study reviews and assesses four arguments identified in relevant literature and policy discourse as to how and why the application of competition might impede the realization of dynamic efficiencies or other industrial policy goals. The discussion is based entirely on published economic and developmental literature. It is important to appreciate that the objective here is to accurately characterize—and then assess—a number of viewpoints that have received attention in discussions among policymakers andcivil society, as well as in academia, on national and international competition policy matters. For this reason, some of the perspectives presented here do not necessarily represent what might be thought of as mainstream academic opinion.

52. The basis for the *first* such argument is the realization that, unlike industrial countries, in many cases developing economies do not have well functioning factor markets—such as stock exchanges and bond markets—and often have not been able to create institutions that support the operation of markets such as bankruptcy codes, efficient contract enforcement, and the like (Laffont 1998). These "missing markets" and "missing institutions" are said to alter the optimal degree of competition in an economy and, therefore, have implications for the vigor and manner with which competition policy should be enforced. It is also argued that these considerations are especially important when considerations of dynamic efficiency drive policymaking. Singh (2002) explains the logic underlying this argument:

> "In order to raise living standards of their people over time, developing economies need high rates of investment to achieve fast rates of growth of productivity. High rates of investment in turn normally require reasonable, if not, high rates of profits in order to maintain the private sector's propensity to invest. This consideration leads to the view that there may at times be too much competition rather than too little. Competition would be too much if it leads to price wars, sharp falls in profits, all of which are likely to diminish the corporate desire to invest" (page 19).

53. Implicit in this perspective is the assumption that firms in developing economies have to raise funds internally and not through borrowing from banks or other financial intermediaries. If such borrowing is not possible, then an attenuation of competitive pressures is said to enable firms to raise prices and secure funds for investment.[11] Tilton (1996) is explicit about the effects of policies that reduce competition among firms in the following remark:

> "To the degree that these policies raise prices, they channel resources from consumers towards targeted industries" (page 3).

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[10] This statement assumes that the approach taken to the enforcement of competition law gives due regard to technological and other considerations (e.g., the importance of scale economies) that may arise in particular sectors. For related discussion, see subsection 1, below.

[11] Of relevance to this argument is the evidence presented in Glen *et al.* (2001, 2002) that implies that the profits earned by firms in developing countries tend to fall fister than in the industrialized economies. If this finding is correct, and firms in developing countries are indeed unable to raise funds from banks or from stockmarkets, then market forces would be effectively undermining the capacity of profitable firms to invest.

54. Singh (2002) also argued that reducing rivalry involves more than maintaining prices set by firms. Excess capacity must also be attended to because, in his view, it can trigger price wars. Governments would, therefore, have to take an active role in managing investment decisions by firms in high growth or targeted industries (see Singh 2002, page 19). In sum, this argument calls into question whether a maximal degree of competition is optimal and suggests that increasing economic growth requires a mix of cooperation and competition by firms.

55. A slightly different variant of this argument has been advanced by Amsden and Singh (1994) in their analysis of "The optimal degree of competition and dynamic efficiency in Japan and Korea". They observed that:

> "In general, whether competition was promoted or restricted [in Japan] depended on the industry and its life cycle: in young industries, during the developmental phase, the government discouraged competition; when the industries became technologically mature, competition was allowed to flourish. Later, when industries are in competitive decline, the government again discourages competition and attempts to bring about an orderly rationalisation of the industry (page 945)."[12]

56. Although these authors do not provide an explicit explanation for these claims, *two* arguments that are consistent with the thrust of Singh (2002) might be developed, without endorsement, along the following lines. In the case of young industries, firms may need to finance growth and reducing rivalry will result in higher prices that, in turn, can generate the internal funds to attain this goal.

57. The argument for constraining competition in declining industries might proceed as follows. If firms have soft budget constraints or face little threat from bankruptcy proceedings, then declining industries may perennially experience price wars and few exits from the industry. Such price wars will result in firms building up losses and greater debts year after year. These ever-growing debts may end up compromising the solvency of the industry's principal financial backers of the firms—that could be the state itself or banks—which in turn could have serious macroeconomic consequences. This outcome may be prevented if firms are discouraged by the state from engaging in price wars while steps are taken by firms and the government to bring productive capacity into line with falling demand.

58. One way to assess these arguments is to identify the intermediate objectives of competition policy that are being alluded to. In Singh's first formulation the intermediate objective was to increase investment outlays.[13] The question, therefore, arises as to whether restricting rivalry is the *least costly means* to obtain this intermediate objective; a claim that is not demonstrated in Singh's analysis. As Tilton acknowledges, reducing rivalry has the effect of increasing prices paid by customers. In contrast, an investment subsidy or tax credit that stimulated investment by the same amount as reducing rivalry, would not have the same adverse effect on customers' welfare. Admittedly, the investment subsidy or tax credit would have implications for the government's budget. Another alternative could be to channel investment funds through the nation's banking system. Arguably, Singh, Tilton, and others have failed to demonstrate that these alternative policy measures are inferior to restricting rivalry through cartelization or other anti-competitive practices.

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[12] Amsden and Singh (1994) cite Okimoto (1990) in support of this claim.

[13] Whether the increased investment outlays are actually used productively or as intended is another important matter, but one that is probably beyond the remit of this study.

59. A *second* possible trade-off between competition policy and dynamic efficiency is said to occur when firms need to attain a certain size in order to compete effectively on world markets. Some argue that in order to reach the appropriate size, state action is called for; essentially to create or foster so-called "national champions." These state actions may include forced mergers and acquisitions (when a state instructs two or more firms to form a single commercial entity), and state-encouraged mergers and acquisitions by private firms (which can result from adopting merger review regulations that places few constraints on mergers by firms or that overlook the consequences of a proposed merger or acquisition that are unrelated to competitiveness). Furthermore, there is an issue as to what should be the appropriate competition law enforcement regime for national champions after the latter have been formed. The following discussion clarifies why size might be important for a firm's competitiveness and then discusses some of the implications of the potential relationship between enforcement of competition law, firm size, and considerations of dynamic efficiency.

60. In principle, firm size is said to be important for corporate "competitiveness" for the following reasons:

1. economies of scale (where larger production runs are associated with low average costs of production),

2. firms need to attain certain minimum scale to successfully innovate or imitate, or to raise funds on capital markets, and when

3. so-called learning-by-doing is faster in larger firms.

61. When firms do have pronounced economies of scale then it is possible to construct arguments, on efficiency grounds, that enforcing competition law so as to maximize rivalry between firms is not necessarily a good idea. The following representative argument by Lau (1996) is couched in efficiency terms:

> "…the government has to take into account the existence of increasing returns to scale which render the usual market allocation inefficient. For example, if the size of the market will support it, it is better to have one minimum-efficient-scale plant than to build two sub-minimum-efficient-scale plants. This is whether the government can and should intervene to prevent potentially inefficient and possibly ruinous competition" (page 59).

62. These arguments still resonate with some policymakers. For example, Estonia made a similar argument to Lau's in a submission to a panel on "Competition Policy in Small Economies" at the Third OECD Global Forum on Competition in February 2003 (Estonia, 2003).

63. As noted earlier, some point to the desirability of subordinating competition policy to the goal of creating national champions or "national leaders," to use Amsden (2001)'s influential account of the rise of non-Western economies. Referring to the latter as "the rest[14]" she argues:

> "After floundering for a century, "the rest" succeeded in creating professionally managed, large scale, national firms" (page 190).

This was accomplished in the following manner:

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[14] Amsden's use of this term is not meant to be derogatory. She wishes to juxtapose "the West" and "the Rest."

> 'National leaders in "the rest," private or public, all shared one characteristic: *they tended to be a product of government promotion*" (Amsden 2001, page 193).[15]

which could include inducements to firms to merge, forced take-overs, and the like.

64. Another important feature of policies employed to create national champions is that they *can* involve *discrimination* against foreign firms. The discrimination can be *de jure*; for example, when foreign firms are simply banned from buying or merging with domestic firms in certain sectors. Alternatively, a foreign firm's proposal to buy or to merge with a domestic firm may be reviewed under a different and potentially more stringent procedure than when two domestic firms decide to form a single combination. The discrimination could also be *de facto*; for example, when merger review procedures are implemented in such a way that proposed combinations involving domestic firms are treated differently than those involving at least one foreign firm.

65. For the purposes of this study, the issue is not whether governments should or should not promote national champions. Nor is the issue whether mergers or acquisitions actually attain the efficiencies and cost reductions that are envisaged, a matter which has been extensively debated in the industrial organization literature. Rather, the question is whether, in order to do so, governments need or are well-advised to relax the enforcement of competition law. Critics points to conceptual and evidential weaknesses in the case for doing so. A recent submission to the Third OECD Global Forum on Competition by the Republic of Ireland succinctly summarizes the key arguments in this regard (see Box I.B3).

Box I.B3: An analysis of the efficacy of creating national champions in small trading economies through the relaxation of competition rules

In a submission to the OECD's Third Global Forum on Competition, the Republic of Ireland questioned the wisdom of small open economies creating national champions. It argued as follows:

"National champion advocates argue that applying the principles of competition policy in small economies can be harmful because firms are precluded from achieving the necessary scale to compete internationally. Accordingly, industrial policy should encourage national champions, and normal competition rules should not apply. There are however, several reasons why the trade-off between competition and other policy goals [including] industrial policy can be considered small, or even non-existent" (Ireland 2003a, page 2).

The first argument Ireland advances is given below:

"In most cases the relevant market is wider than the national market and hence an accurate competition assessment, i.e. one based on the wider market, would not identify a competition problem. Thus, for example, Nokia's strong position in the Finnish market is unlikely to be a competition problem" (Ireland 2003a, page 2).

In this situation, therefore, competition from the "wider market" would ensure any benefits from creating a national champion would not be eroded by higher domestic prices; thus there would be no need to sacrifice stringent merger review procedures in order to promote national champions.

Developing the argument further, Ireland points out that to the extent that creating national champions substantially increases concentration in a domestic market, then there may actually be a stronger case for enforcing competition law than would otherwise be the case. Ireland argues that:

[15] Italics in the original quotation.

"A sanguine position regarding a large or dominant firm…depends critically on distribution and importation systems being open to competition, as this will mean dominant domestic firms are exposed to international competition in the domestic consumer market, not just in foreign markets. For this reason, small economies have all the more reason to apply competition rules more vigorously in the importation and distribution sectors, and doing this would ease any adverse domestic implications from national champions firms…" (Ireland 2003a, page 2).

Ireland then goes onto criticize the argument that domestic firms "need" profits for foreign expansion; an argument, which if compelling, might imply that the enforcement of certain competition laws (specifically those related to cartels and to merger review) place greater weight on export competitiveness than on domestic customers' welfare.

"Monopoly profits could in theory have a beneficial effect by providing a source of funding for the investment necessary to allow the national champion to compete internationally. However, a number of criticisms of this argument can be made."

"Capital markets, rather than monopoly profits derived from domestic consumers, are a more efficient source of funds for investment abroad, and almost certainly result in more sound investment. Funds raised on capital markets, either via bonds or equities, impose obligations, controls and incentives on the shareholders and management of firms. By contrast where a firm has access to monopoly profits there is much less incentive to encourage sensible investment at home or abroad."

"If monopoly profits are necessary to fund a foreign investment, then in effect the investment is only viable because of a cross-subsid[y] from domestic consumers. Consequently the overall effect on the economy would [be] negative as, in effect, the merger would be financed by a tax on domestic consumers to subsidise competition in export markets."

"An alternative case might arise when a multi-product firm seeks to expand externally from a platform of a domestic merger but where in one product market the merger raises monopoly issues…Rather than blocking the whole merger it would be more appropriate to apply competition remedies to the specific domestic market power problem" (Ireland 2003a, page 2).

Finally, Ireland implicitly criticized the assumption that larger domestic firms have greater export competitiveness, especially when the creation of those larger domestic firms results in a substantial reduction in the degree of rivalry between incumbent firms. Ireland notes that:

"It has been argued, by Michael Porter and recently also by the OECD, that the discipline earned by intense competition in the domestic market is the best stimulus to success abroad. Firms that have to compete domestically know how to cut costs, operate efficiently, please customers and win business. This experience has given them an enormous advantage when they expand into foreign markets…"

"In general the evidence is very much against the benefits of domestic monopolies as a launching pad for mergers with foreign firms. In the Irish context there are few examples of domestic monopolies that were protected from competition at home and that used this to compete and expand effectively on foreign markets. Evidence, on the contrary, suggests that the monopoly profits were neither used to expand abroad nor returned to the shareholder (often the state) but instead were wasted in inefficiencies within these firms. These additional costs present problems in terms of transitional costs when an industry or sector undergoes restructuring" (Ireland 2003a, page 2).

Ireland concludes the discussion of this matter with the following statement:

"In summary the arguments supporting the suspension of competition law to encourage national champions are weak. There are almost certainly better policy instruments available to

encourage national champions than exemptions and protection from domestic competition" (Ireland 2003a, page 3).

66. The first two perspectives described above purported to show that government measures to restrain rivalry could, in certain circumstances, enhance dynamic efficiency. In contrast, the *third* perspective purports to show that governments need not intervene to promote rivalry—that is, by attacking market power—in markets where innovation is the principal source of competition between firms and there are no barriers to entry by new firms. This third perspective is of much older vintage than the first two. Schumpeter in his classic book *Capitalism, Socialism, and Democracy* contrasted his view of the dynamics of a capitalist economy—which he referred to as "plausible capitalism"—with the:

> "essentially static conception emphasized in the contemporary neoclassical economic analyses, both at the time he wrote and (with only modest amendments) fifty years later" (Scherer 1992, pages 1416-17).[16]

67. Schumpeter argued that the following types of innovations (or "technological progress", as he put it) drove economic growth: new consumer goods, improved production methods and means of transportation, new markets, and new forms of firm structure and industrial organization. Innovation, however, is an endogenous outcome and is itself driven by entrepreneurs that seek higher profits. According to this view, the riskiness of innovation is such that entrepreneurs are more inclined to invest in innovation when:

> "firms could deploy an array of restrictive practices to protect their investments" (Scherer 1992, page 1417).

Thus,

> "Schumpeter went beyond economists' long-accepted view that the expectation of a monopoly position (e.g. through patent protection on inventions) was necessary to make the venture worthwhile. Monopoly power already held also supported investments in technological progress. Here, Schumpeter argued, both economists and trust-busters had their priorities wrong" (Scherer 1992, page 1418).

In Schumpeter's own words:

> "What we have got to accept is that [the large scale establishment or unit of control] has come to be the most powerful engine…of progress and in particular of the long-run expansion of output not only in spite of, but to a considerable extent through, this strategy which looks so restrictive….In this respect, perfect competition is not only impossible but inferior, and has no title to being set up as a model of ideal efficiency" (Schumpeter 1942, page 106).

68. Schumpeter argued, further, that innovation resulted in a continual process by which new products simultaneously undermined the position of even entrenched incumbent firms (the so-called process of "creative destruction"). He crystallized the differences between his thesis and the neoclassical conception of competition and its emphasis on static efficiency as follows:

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[16] Scherer (1992) is cited extensively in this discussion because this academic article contains a balanced account of both Schumpeter's thinking about the operation of market processes and of the research programs that were spawned by his seminal contributions.

> "But in capitalist reality as distinguished from its textbook picture, it is not [price] competition which counts but the competition from the new commodity, the new technology, the new source of supply, the new type of organization…competition which commands a decisive cost or quality advantages and which strikes not at the margins of profits and the outputs of existing firms but at their foundations and their very lives. This kind of competition is as much more effective than the other as a bombardment is in comparison with forcing a door, and so much more important that it becomes a matter of comparative indifference whether competition in the ordinary sense functions more or less promptly; the powerful lever that in the long run expands output and brings down prices is in any case made of other stuff" (Schumpeter 1942, pages 84-5).

69. As these quotations demonstrate, although Schumpeter presented an alternative conception of the dynamics of market economies—and criticized orthodox analyses for their characterization of market processes—he did not depart from the orthodox prescription that fierce competition between firms is the motor for economic advance. Hence, Schumpeter's theory is not a rejection of competition as the basis of innovation, economic progress, and growth but an alternative vision of how competition occurs.

70. The implications of Schumpeter's analysis for competition policy can be summarized as follows: state measures that seek to arbitrarily reduce concentration levels or to reduce the profitability of innovative firms should be avoided, since this will diminish the incentives of both incumbent and potential firms to invest in potentially profitable innovations and related activities in the first place.[17] Rather, according to this perspective, attention should focus on addressing barriers that reduce the profitability or likelihood of entry by new firms into an industry.[18] As will be seen below, to an important extent the enforcement of competition law in jurisdictions with active competition regimes has already adapted itself to these insights, by de-emphasizing the control of market concentration *per se* and placing more emphasis on entry conditions and other factors that affect the incentives for innovation in markets.

71. It is worth noting, in this connection, that recent empirical research has confirmed that barriers to entry are substantially higher in developing economies than in industrial nations (see Djankov *et al.* 2002 and De Soto 2001). If reforms cannot be introduced to effectively lower these barriers—perhaps because in some situations poor governance practices cannot be eliminated in any realistic time frame—then dynamic efficiency may actually be best served by competition policy measures that prevent incumbent firms from setting higher prices to customers over the longer term. Moreover, to the extent that the enforcement of competition law prevents or discourages incumbent firms from taking steps to foreclose entry by potential rivals, then such enforcement will strengthen the incentives of the latter firms to invest in innovation. This is because these potential competitors will place a lower probability of their eventual entry into a market being impeded and so will have greater confidence that their investments in innovation will bear commercial fruit. Specifically, preserving the ability of innovative firms to enter a market—one of the sources of long-term

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[17] This raises the empirical question of whether industries with more concentrated sellers tend to have more innovative firms. Scherer (1992) recounts the twists and turns in the empirical literature and summarizes the findings of what he believes is the best research paper on the subject (Geroski 1990). Scherer described the results of the latter study of the propensity to innovate by British firms as follows:

> "innovation was found to be less vigorous in more concentrated industries. Thus, the results did not support the 1942 Schumpeterian conjectures" (Scherer 1992 page 1424).

More recent surveys of the relationship between the propensity to innovate and the concentration of producers in a market are cited in paragraphs 90 and 91 below.

[18] For related discussion, see Audretsch *et al.* 2001, page 619.

economic performance in the Schumpeterian world—may well be contingent on the appropriate enforcement of various competition laws.

72. A *fourth* source of potential tension between competition policy, rivalry, and the realization of dynamic efficiency relates to the existence of atypical production cost or consumer preference structures in certain economic sectors. A possible example of this would be the existence of a natural monopoly – i.e. a situation where, due to overwhelming economies of scale, a market is most efficiently served by a single supplier. Another example which has received much attention in recent literature and policy debates relates to industries where so-called network externalities are pervasive (see White 2001, for an accessible economic analysis of such externalities and the implications for regulatory and competition policy.) In the presence of such externalities, the maximum amount that consumers are willing to pay for a good or service depends, in part, on the number of other consumers who also purchase the item in question. Admittedly, much of the discussion of network externalities takes place within the context of markets where firms have advanced technologies such as the market for computer software. (In the latter market consumers effectively place a premium on programs that create files which can be opened by and amended in principle by many other persons.) However, it should not be forgotten that many communication and infrastructure services, that are important for economic development, exhibit network externalities. Such services include telephones, railways, etc (see Laffont and Tirole 2000).

73. Although the analysis of market outcomes in the presence of these externalities can be complex, one theme that does emerge from much of the literature is that there are instances where consumers will prefer that a smaller number of goods (and possibly a single good) be available in the market place. If a small number of firms each supply a different product to a large number of consumers, then the externalities generated for consumers (which result from the fact that each product they consume is consumed by many others) may well exceed any adverse impact on prices that may follow from a high degree of market concentration. Put simply, there may be instances in which consumers may prefer concentrated market outcomes with a small number of firms because of the network externalities that large output levels can create.

74. Moreover, in such industries, firms may adopt pricing strategies that deliberately take into account the impact of the current number of customers on the desirability of their product to potential customers in the future. The latter may only be willing to buy the product once the number of existing customers exceeds a critical level; in which case, firms will have an incentive to keep prices lower at present than in the absence of network externalities. Therefore, network externalities benefit current consumers directly and through the stronger than usual disincentives to firms to raise prices. Both theoretical and empirical analyses of industries with network externalities have shown that firms often adopt complex pricing strategies which typically involve substantial price discrimination across customers.

75. For the purposes of this study, it is worth emphasizing that the above arguments *can* provide an efficiency-based rationale for not taking steps to maximize rivalry between firms in particular (limited) circumstances. Put another way, in *certain sectors* with *observable* and *identifiable* technological characteristics, maximizing rivalry among firms may harm the interests of both consumers and producers. Nonetheless, this does not imply that there is no role for competition policy in these markets; rather, it means that competition policy must be applied in ways that take account of the technological characteristics of such markets—as indeed competition authorities increasingly do.[19] Indeed, recent contributions highlight the

[19] A cursory look at the websites of the Antitrust Division of the US Department of Justice (http://www.usdoj.gov/atr/), the Bureau of Competition of the US Federal Trade Commission

importance of (appropriately tailored) competition rules in network industries, due precisely to concerns over the market power that can be created or entrenched through network effects (see, e.g. Church and Ware 1998). As well, since network externalities are not found in every sector of the economy, this fourth perspective provides at most a sector-specific and not a general counter-argument to the contention that enhanced rivalry promotes dynamic efficiency.

76. To summarize the findings of this subsection of the study, although all four perspectives outlined above imply that dynamic efficiency may not be best served by consistently maximizing the number of competitors in markets, they differ in other important respects. The fourth perspective is sector-specific in nature, whereas the first three perspectives may be of more general application.

77. Of the three perspectives with general application, only the first two potentially call (even potentially) for state measures to constrain competition. With regard to the third perspective, in a smoothly running Schumpeterian world where there are no significant state-orchestrated barriers to entry, it might be argued that there is no need for competition law enforcement to promote rivalry. Yet, once one allows for the possibility that private firms can create barriers to entry or foreclose entry to a market by new firms, then improving dynamic economic performance may well require the appropriate enforcement of competition laws.

78. The four perspectives also differ sharply in the assumptions they embody as to what, if any, are the appropriate *intermediate* objectives of competition policy. Increasing private sector investment is the intermediate objective associated with the first perspective (recall the writings of Singh); whereas export competitiveness could motivate the second perspective.

79. Even if one accepts the intermediate objectives of each perspective as legitimate, one is entitled to ask whether constraining competition is the policy response the most effectively meets these objectives. For example, what is the empirical and theoretical support for the contention in a developing country setting that restraining competition to bolster investment is *more effective and less costly* than offering firms an investment subsidy or tax credit, or taking measures that encourage banks to lend to firms? Unfortunately, this line of questioning has not received the attention it deserves in the extant literature.

2. Complementarities

80. Proponents of the view that rivalry can improve economic performance over time have pointed to a wide range of circumstances under which competition contributes to innovation, productivity, and growth. Since the appropriate enforcement of competition laws can promote inter-firm rivarly, the five perspectives described below highlight the important contribution that the appropriate enforcement of competition law can make to efficiency gains, including in a dynamic sense. As in the previous section, the goal is to present the major perspectives in the discussions among policymakers, members civil society, and academics.

81. *First*, greater competition between firms is said to encourage managers and capitalists to focus on improving their enterprise's performance so as to maximize profits or at least to

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(http://www.ftc.gov/ftc/antitrust.htm), the European Commission's Directorate-General for Competition (http://europa.eu.int/comm/competition/index_en.html) and the Canadian Competition Bureau (http://strategis.ic.gc.ca/SSG/ct01250e.html), to name just a few of the enforcement agencies in the industrialised world, reveals that such efficiency-based arguments figure extensively in the analyses undertaken and decisions made by enforcement officials, particularly though by no means exclusively in merger cases.

stave off the threat of bankruptcy, take-over, or some other loss of control. One of the United States' leading jurists in the early twentieth century, Judge Learned Hand, once observed that:

> "Possession of unchallenged economic power deadens initiative, discourages thrift and depresses energy…Immunity from competition is a narcotic and rivalry a stimulant to industrial progress."[20]

82. The propensity of firms to attain the minimum level of costs subject to a given level of output and the circumstances in which they are most likely to do so has been extensively debated by economists (see, for example, the differing views in Leibenstein 1966, Stigler 1976, and Leibenstein 1978.) One interesting feature of this debate, which is of direct relevance to this study, is the finding that more intense competition in product markets tends to intensify the pressure on firms to lower costs (see, for example, Primeaux 1977 and Leibenstein 1978). Consistent with this view, in a major survey of the impact of regulatory reform across a wide spectrum of U.S. industries, Winston (1998) found that introducing competition into previously-regulated industries significantly strengthened the efficiency of firms and improved economic performance over time.

83. The view that inter-firm rivalry provides incentives for efficiency-enhancing restructuring also finds considerable support in the empirical literature on the enterprise reform in Eastern Europe and the members of the Commonwealth of Independent States (CIS). Fortunately, a detailed survey of the literature on the determinants of the pace of restructuring in transition economies has recently been published (Djankov and Murrell 2002). This survey includes a critical discussion of 54 analyses of the impact of product market competition on the rate of firm restructuring and what is especially appealing is that it uses objective measures to assess the quality of the research papers being reviewed. Djankov and Murrell find that:

> "The analyses indicate that product market competition has been a major force behind improvements in enterprise productivity in transition economies as a whole…" (page 43).

84. They also note that their:

> "…results are upheld in a survey of over 3,300 enterprises in 25 transition economies (Carlin *et al.* 2001) that shows strong positive effects of the reduction in market concentration on firm efficiency" (Djankov and Murrell 2002, page 44).

85. Another striking finding the Djankov and Murrell survey is that, in contrast to their findings with respect to the importance of competition in domestic markets, competition from imports is a far less robust determinant of beneficial restructuring. Djankov and Murrell state that:

> "The findings on the effect of import competition deserve special attention. In the CIS, import competition has a large negative effect in economic terms, although this effect is statistically not robust. In Eastern Europe, import competition has a positive effect in economic terms, but the results of individual studies are mixed, consistent with the literature on developing economies" (Djankov and Murrell 2002, page 44).

86. This suggests that measures to promote rivalry among domestic firms tend to have a more consistent effect on restructuring—and on dynamic economic performance—than trade liberalization. Therefore, according to this perspective it would be imprudent to rely solely on

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[20] United States v. Aluminum Co. of America,148 F.2d 416, 427 (2d Cir. 1945).

lowering trade barriers to discipline entrenched market power and to provide sharp incentives to firms to keep costs under control.

87. A *second* source of complementarity between the competition law enforcement and long-term economic performance is provided by the long-standing contention that the intended benefits of trade reform may not be realized without active enforcement of competition law. . The concern here is that reductions in official trade barriers will be replaced by anti-competitive private practices, the latter counteracting the price-reducing effects of trade reforms. To the extent that reductions in the prices of imported machinery and other capital equipment bolster investment and enhance dynamic economic performance, then reductions in trade barriers on these durable goods may not translate into higher growth without measures to discipline private anti-competitive practices. The enforcement of competition law, therefore, increases the effectiveness of cuts in trade barriers on growth-enhancing imports.

88. The general point that the objectives of trade reform can be frustrated by anti-competitive practices was made with considerable force in a contribution by Argentina to the Working Group in 1998. The contents of this contribution have been summarized as follows:

> "In a recent contribution to the Group (document W/63), Argentina has set out the results of 18 empirical case studies which, in its view, illustrate the importance of an effective national competition policy, even in the context of external market liberalization. The presumption underlying these studies is that, in general, when a country implements far-reaching trade liberalization, domestic prices will tend toward import parity levels. The competition agency of Argentina had, nonetheless, identified several situations where this response had not been forthcoming, due to the existence of anti-competitive practices of enterprises. Factors that tended to facilitate or underlie such anti-competitive practices included high market concentration levels, inelastic demand (reflecting a lack of substitutes), the prior existence of a cartel, and control by a dominant enterprise of scarce facilities that were necessary for imports to occur. Based on these findings, the representative of Argentina concluded that effective national competition policies are vital to ensure that the process of adjustment to external liberalization and resulting benefits for efficient economic development are not circumvented by anti-competitive practices" (WTO 1998a, page 13).

89. A *third* source of complementarity between competition law and dynamic economic performance involves foreign direct investment. In particular, the point has been made that appropriate enforcement of competition law both enhances the attractiveness of an economy as a location for foreign investment and is important to maximize the benefits that flow from such investment (these arguments are developed, for example, in UNCTAD 1997 and in other references cited therein). A synthesis paper on the relationship between competition policy, trade policy, and development reported on the following pertinent discussions in the WTO Working Group:

> "The point has been made in various oral and written contributions to the Group that the implementation of a transparent and effective competition policy can be an important factor both in enhancing the attractiveness of an economy to foreign investment, and in maximizing the benefits of such investment. More specifically, these contributions have suggested that competition policy can enhance the attractiveness of an economy for foreign investment by providing a transparent and principles-based mechanism for the resolution of disputes involving such investment that is consistent with international norms that are widely-accepted internationally. This increases investor confidence and therefore the propensity to invest. Vigorous

competition in markets, reinforced by competition policy, also helps to maximize the benefits of such investment to host countries, by encouraging participating firms to construct state-of-the-art production facilities, to transfer up-to-date technology into host countries and to undertake appropriate training programmes, and by preventing the exploitation of consumers" (WTO 1998a, page 8).

90. A *fourth* set of complementarities arises from the substantial body of research into the effects of greater competition in the product market on the incentives for firms to innovate. Comprehensive surveys of the latter can be found in Ahn (2002), American Bar Association (2002), and Anderson and Gallini (1998). Leading economic researchers have explored the following three distinct channels through which competition in product markets stimulates innovation:

"-Darwinian effect: Intensified product competition could force managers to speed up the adoption of new technologies in order to avoid a loss of control…due to bankruptcy (Aghion *et al.* 1999). More generally, firms should innovate to survive under competitive pressure (cf. Porter, 1990)."

"-Neck-and-neck competition: In a simple model of "creative destruction" the incumbent firms unlike new entrants have no incentive to innovate. Under a more gradualist technological progress assumption with incumbents engaged in step-by-step innovative activities competition could increase innovation. It is because more intensive product market competition between firms…will increase each firm's incentive to acquire or increase its technological lead over its rivals."

"-Mobility effect: In the learning-by-doing model of endogenous growth, the steady state rate of growth may be increased if skilled workers become more adaptable in switching to newer production lines…In this case, more competition between new and old product lines will induce skilled workers to switch from old to new lines more rapidly (Aghion and Howitt, 1996)" (as summarized in Ahn 2002, page 7).

91. Ahn (2002) summarizes his review of the evidence as follows[21]:

"Competition has pervasive and long-lasting effects on firm performance by affecting economic actors' incentive stucture[s], by encouraging their innovative activities, and by selecting more efficient ones from less efficient ones over time" (page 5).

By contrast,

"The claim that market concentration is conducive to innovation does not appear to be supported by recent empirical findings…On the whole, however, there is little empirical support for the view that large firm size or high concentration is strongly associated with higher levels of innovative activity" (page 5).

92. A *fifth* particular channel through which competition law enforcement can contribute to dynamic economic performance is highlighted in the burgeoning literature on so-called "innovation markets," a term introduced by Gilbert and Sunshine (1995). This literature emphasizes that innovation itself is a result of market interactions and that even firms that are not currently competing with each other in actual (existing) product markets may be competitors in markets for future innovations. Furthermore, competition in such markets (and hence the incentive for innovation) can be undermined by mergers or other (potentially) anti-competitive practices.

[21] See Table 1.1 and section IV.1 of Ahn (2002).

93. This perspective has become sufficiently influential that, in the U.S., the federal agencies responsible for conducting merger reviews have explicitly incorporated concerns about "innovation markets" into published enforcement guidelines dealing with matters such as intellectual property licensing issues[22] and have sought to block corporate mergers on the basis of the threat they would pose to incentives for innovation.[23] Although some commentators (e.g., Gallini and Trebilcock 1998) have argued that the more conventional theory of "potential competition" already encompasses the principal insights stressed by the conception of innovation markets, at a minimum, the latter further illustrates the scope for anti-competitive practices to undermine the incentives for innovation, and hence the positive contribution that competition policy can make to long run economic performance.

94. To summarize the foregoing discussion of complementarities and trade-offs between rivalry, competition law, and innovation, many scholars would take the view that, on the whole, innovation and productivity improvement are likely to be promoted rather than impeded by inter-firm rivalry. Nonetheless, it is also apparent from the literature that identifiable situations can arise in which—given the technologies available to firms in an industry—the maximization of the number of competitors in a market may lead to inefficient outcomes. It should be stressed that according to the thinking of leading scholars in the field of industrial organization (see, e.g., Carlton and Perloff 1994) such situations by no means call for the wholesale rejection of competition policy as a tool of economic governance; rather, they call for appropriate tailoring of the application of such law to take account of relevant technological and other considerations. As has been pointed out and will be argued further particularly in Part E below, such "tailoring" of the application of competition law to particular market circumstances is a pervasive feature of modern competition law regimes.

D. COMPETITION POLICY AND INDUSTRIAL POLICY IN THE PROCESS OF ECONOMIC DEVELOPMENT IN ASIAN ECONOMIES

95. The goal of this section of the study is not to describe or summarize *current* policies in East Asia, nor is it to dwell on the broader and voluminous literature on the factors responsible for this region's economic fortunes. Rather, it is to assess the *historical* relationships between competition and industrial policies in the national development strategies of selected East Asian economies which have been the subject of scholarly contributions relevant to the relationship of competition and industrial policy. The discussion focuses particularly on the extent of and contributions to firm, industrial, and national economic performance of governmental competition policy-related measures to stimulate or to retard inter-firm rivalry. Only the literature that directly speaks to this matter is described at any length below; consequently, the reader may not see reference to some leading studies of East Asian development that do not place particular emphasis on the role of competition policies in that region's economic performance.[24] It should also be emphasized that the historical descriptions referred to below may not correspond to current policies in the relevant economies; on the contrary, recently, the economies examined in this part of the paper have reduced their reliance on policy tools that may limit competition and have placed greater weight on the promotion of competition as a means of ensuring satisfactory long run performance.

96. This section looks, in particular, at the experience of four economies: Japan, Korea, Chinese Taipei, and China.

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[22] See, for example, the Intellectual Property Guidelines published by the United States' Department of Justice and the Federal Trade Commission in 1995, especially section 3.2.2.

[23] See Gilbert and Tom (2001).

[24] Much of the recent literature on East Asian development is summarized in World Bank (2003a).

1. Japan

97. Amsden and Singh (1994) analyzed Japan's use of competition policy instruments during the high economic growth period of 1953 to 1970, an epoch which some have argued is particularly relevant to developing economies today.[25] Amsden and Singh (1994) observe that the legacy of the antitrust laws imposed by the US occupation authorities in the post-WWII period was short-lived. Increasingly, the Japanese government prioritized the achievement of national development goals over competition and is said to have pragmatically managed competition in domestic key industries. Institutionally, it is argued, this was reflected at the time by the dominance of Japan's Ministry of International Trade and Industry (MITI) over the Japanese Fair Trade Commission. In fact, in order to promote investment and to stimulate increases in productivity, MITI encouraged the formation of cartels and mergers in a variety of industries, particularly during the 1950s and 1960s. Most of MITI policies during the high-growth years of Japan are characterized by a bias against competition, implemented through the agency's use of "administrative guidance" to firms and industry associations. Furthermore, as noted earlier, government guidance to a domestic industry was carefully tailored to the stage of the life-cycle that the industry was in

98. On this view, competition policy in Japan was implemented with dynamic considerations in mind, with MITI orchestrating collusion and competition so as to best serve the goals of external competitiveness, factor accumulation, and technological progress. Amsden and Singh (1994) quote approvingly the following characterization of MITI's method by Yamamura (1988):

> "What MITI did was to 'guide' the firms to invest in such a way that each large firm in a market expanded its productive capacity roughly in proportion to its current market share – no firm was to make an investment so large that it would destabilize the market. The policy was effective in encouraging competition for the market share (thus preserving the essential competitiveness of the industrial markets), while reducing the risk of losses due to excessive investment. Thus it promoted the aggressive expansion of capacity necessary to increase productive efficiency in output" (Yamamura 1988, page 176).

99. More generally the Japanese model, as the country's state-led industrialization effort is usually referred to, comprised a much larger set of policies as those directly relating to competition. Porter *et al.* (2000, page 22) lists the main building blocks of this model:

1. Activist central government with a stable bureaucracy
2. Targeting of priority industries to enhance economic growth
3. Aggressive promotion of exports
4. Extensive "guidance," approval requirements, and regulations
5. Selective protection of the home market
6. Restrictions of foreign direct investment

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[25] Singh (1999) later remarked that:

> "The evolution of Japanese competition policy in the 1970s and 1980s is interesting but not as relevant to developing countries as the competition policy practised by Japan between 1950 and 1973. This is because, at the beginning of the period, Japan was very much like a developing country with low levels of industrialization and economic development" (page 10).

7. Lax antitrust enforcement

8. Government-led industry restructuring

9. Official sanctioning of cartels

10. Highly regulated financial markets and limited corporate governance

11. Government-sponsored cooperative research and development projects

12. Sound macroeconomic policies

100. Those who view such government intervention as having played a crucial role in Japanese post-war development tend to argue that:

> "the Japanese were the first to recognise that international competitive advantage could be deliberately created by government not just to nurture a few infant industries to supply the domestic market but to push broad sets of industries toward areas of growth and technological change in the world economy" Wade (1990, page 25).

101. The combination of protection with restrictions on domestic competition assured high levels of domestic profits which, it is said, translated into high rates of investment and strengthened incentives to upgrade technology; so enabling Japanese firms to successfully compete in foreign markets. Moreover, Amsden and Singh (1994) identify:

> "the emphasis on exports and on maintaining oligopolistic rivalry – instead of concentrating resources and subsidies on a single 'national champion' as the key factor distinguishing Japanese policies from those of other dirigiste countries" (page 946).

102. Furthermore, concentration ratios in Japan's major industries fell over time, a finding which Amsden and Singh (1994) contend is:

> "…in contrast to the conventional paradigm in economic development…which proposes that competition leads to economic growth, the Japanese experience suggests reverse causality; that it was growth which stimulated competition, at least in the sense of reducing industrial concentration, rather than the other way round" (page 947).

103. The view that restricting rivalry promoted Japanese economic development is not universally shared. It is not a matter of challenging the argument that the Japanese authorities attempted to limit rivalry; rather a matter of questioning the effectiveness of such state initiatives. As noted earlier, Porter *et al.* (2000) saw lax antitrust enforcement, government-led restructuring (often through state-inspired mergers between private firms), and official sanctioning of cartels as elements of Japan's industrial policy. Given this record of state intervention, Porter *et al.* (2000) asked the following question:

> "Does the Japanese government model explain the nation's success? To answer this question, we sought to understand whether the application of the model and some of its key practices actually discriminated between Japan's competitively successful and unsuccessful industries" (page 29).

104. Porter and his co-authors formed a sample of 20 internationally competitive sectors and another sample of seven uncompetitive sectors, and then examined in detail the nature, timing, and extent of different Japanese government interventions in those sectors. Thus, the focus is not just on successful sectors. Furthermore, this approach enables the contribution of competition policy to be assessed along side other government initiatives in the same industry. Porter *et al.*'s summary tables of the nature of government intervention in these 27 sectors can be found in Appendices I.A and I.B at the end of this study.

105. Porter and his co-authors summarized their findings as follows:

> "In this broad sample of competitive industries, we found that the government model was almost entirely absent….There were no major subsidies and little or no intervention in competition. We found only one partial exception, sewing machines, an older industry that was targeted in the early years after World War II to meet domestic demand for clothing and [to] provide employment. Yet even here, Japan today is competitive not in household but in industrial sewing machines, where targeting and the other practices were largely absent. The Japanese government model, then, does not explain Japan's competitive successes" (Porter *et al.* 2000, page 29).

106. This is not to say that *all* forms of Japanese government intervention were ineffective in promoting the internationally competitive industries. Porter *et al.* (2000) goes on to argue:

> "Looking deeper at the internationally competitive industries, we found that the government was indeed involved, but in various unexpected roles. Through a slew of initiatives, government stimulated early demand for new products, helping to foster the competitiveness of some industries[26]" (page 29).

And,

> "In other cases, government regulation triggered innovation through setting standards" (page 30).

Moreover,

> "To these government policies that encouraged competitive success, three other cross-cutting Japanese government practices can be added: policies to encourage patient capital, a universal and rigorous basic education system, and a supply of engineering graduates from universities. Although not figuring prominently in the traditional model, those practices are important in the success cases" (page 31).

They conclude,

> "Overall, then,…government did play a variety of roles in the successful Japanese industries. However, these roles were very different from what is closely associated with Japan, and they were not the Japanese policies that have been the most widely emulated. Not only was there little of the intervention in competition associated with the received government model; in some successful industries, such as automobiles, the industry actually spurned government's efforts to suppress competition" (Porter *et al.* 2000, page 31).

107. Turning to their analysis of those unsuccessful Japanese industries, these authors argued:

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[26] Porter *et al.* (2000) go on to describe such initiatives in the fax machine and robotics sectors.

> "…the policies widely believed to explain Japan's success were far more prevalent in the nation's failures…" (Porter *et al.* 2000, page 33).

108. One such policy was the state-sponsored formation of cartels whose purported goals included preventing "destructive competition" and fostering cooperation and collective action. Porter *et al.* (2000, pages 36-39) document the formation of such cartels, showing that around 1965 just under 250 of these cartels were active. These scholars went on to examine whether "…these industries became competitive because of cartels or in spite of them?" (page 39).

109. Several case studies were conducted on industries were cartels operated, and Porter *et al.* (2000) found that:

> "…cartels are rarely found in competitive industries. In the relatively few competitive industries in which cartels were formed, they were not strong enough to significantly limit rivalry because of the industry's structure. Conversely, cartels were common in uncompetitive industries. Legalized cartels, then, were not a source of competitiveness, they actually contributed to uncompetitiveness" (page 39).

110. In the light of these findings, it would be misleading to argue that there is an intellectual consensus behind the proposition that limiting rivalry promoted Japanese economic development. Moreover, in a contribution to the Working Group in 2001, Japan itself has argued that intra-firm rivalry has previously played and continues to play an essential role in Japan's development:

> "While it has been commented that Japan's post-war economic development was achieved by subordinating competition policy to industrial policy…much of Japan's economic dynamism has in fact been rooted in the robust market mechanisms created through competition among firms. Industrial policy and competition policy coordinated mutually and developed an environment that allowed companies to engage in free and fair competition. The introduction of competition policy early in Japan's economic reconstruction, as well as the subsequent evolution of this in response to economic development, was a great factor in Japan's rapid economic growth in the past. Even today, it is those sectors where competition has been intensive - the automobile industry, for example - which tend to have the greatest international competitiveness" (Japan 2001, page 2).

2. Korea

111. To the extent that accounts of Korean economic development focus on government measures to alter inter-firm rivalry, the case has been made that steps were taken to promote the development of large firms that could compete on international markets while at the same time encouraging fierce competition between these firms. That is, these measures are thought to have secured the benefits of large firm size without the costs associated with diminished competition. The paragraphs below describe this argument and discuss how—in the eyes of some—this argument has fallen out of favour in recent years.

112. Rodrik (1995) succinctly summarizes the thesis of one of the leading authorities on Korean economic development since World War II, Alice Amsden:

> "Amsden (1989) describes in detail the Korean government's use of trade protection, selective credit subsidies, export targets (for individual firms), public ownership of banking sector, export subsidies, and price controls – all deployed single-mindedly in the service of acquisition of technological capabilities and of building industries that will eventually compete in world markets. She argues that government policy was

successful not because it got prices right, but indeed because it got them purposefully wrong. However, a key element of the strategy, Amsden argues, was that in exchange for government subsidies and trade protection the government also set stringent performance standards. Firms were penalized when they performed poorly, as when they became subject to "rationalization" (government-mandated mergers and capacity reduction) in the wake of over-extension. They were rewarded when they fulfilled government objectives, as when they were awarded subsidized credit for fulfilling export targets. Such discipline kept the system free of rent-seeking that has contaminated incentive regimes in other settings…" (Rodrik 1995, pages 2946-7).

113. The implications of this apparent mix of policies is described further by Amsden and Singh (1994). They contend that:

> "The Korean government both contributed to the rise of big business, through its licensing and subsidised credit policies (it owned or controlled virtually all financial institutions), and went out of its way to ensure that big business did not collude, by allocating subsidies only in exchange for strict performance standards" (Amsden and Singh 1994, page 948).

114. High and growing concentration ratios were thought to be the result of these policies. Smith (2000) reports a trend of growing market power by the so-called chaebols over the period 1970 to the mid-1980s. From 1977 to 1994, the 30 largest chaebols controlled between 32 and 40 percent of total national output. Total sales by the top five business groups as a percentage of national income in 1994 was 49 percent (Smith 2000, page 114). Amsden (1989) shows that in 1982, out of 2,260 commodities only about 18%, or 30% of all shipments, were produced under competitive conditions. With such facts in mind, Smith argued that:

> "The end result has been an industrial structure different from that which the market would have produced. The actions of the Korean state have also been complemented by large, diversified business groups which occupied a dominant position in the economy. Their size and level of diversification meant they were less subject to the discipline of the market than to the discipline of managerial hierarchies" (Smith 2000, page 12).

115. Over time, however, it appears that the costs of creating such a cadre of large firms have become increasingly evident. It is said that these large firms used their market power at home to frustrate entry by rivals, to raise prices, and to resist the enactment and enforcement of competition laws that could have put a stop to these adverse outcomes. These points have been made with some force in a submission by Korea to the Working Group in 2001. Korea notes that:

> "The Korean government first tried to introduce competition law in 1963, but its efforts were not successful. The government's concern was mainly focused on stabilizing prices of monopolies and oligopolies and preventing cornering and hoarding practices. There were some efforts of course to introduce competition law, but it never passed the National Assembly due to lack of perception of its importance and heavy lobbying from the corporate sector."

Moreover,

> "Korea's experience demonstrates that it is better to introduce a competition regime at the initial stage of economic growth, when monopolies have not yet gained political and economic power. Despite their merits of achieving economy of scale, large

> monopolies, if left unchecked, are very likely to engage in excessive facility investments, cause price hikes resulting from their inefficient operations, and hinder opportunities for new entrants. This eventually necessitates the introduction and enforcement of competition policy to remove anti-competitive elements in the market under the political and social pressure stemming from the rising public discontent against the unbalanced distribution of wealth" (Korea 2001, page 3).

In addition,

> "Korea had to pay dearly for its failure to reconcile industrial policy with competition in the domestic economy from the initial stage of economic development. In many ways, the 1997 financial debacle and the ongoing malaise experienced by *chaebol* are linked to the absence of a competitive domestic economic environment during the past decades. Building on lessons learned the hard way, the Korean government is currently making strenuous efforts to establish a pro-competitive market structure, although it is encountering various problems in the process as vested interests in the status quo are showing more resilience than expected. The nurturing of monopolies or oligopolies through industrial policy has created these vested interests and, after decades of expansion and dominance over the economy, their necessary conversions exact a heavy toll on the economy. The Korean experience points to the importance of having faith in the benefits of competition from the early stage of economic growth and of incorporating competition policy based on the market function of autonomous adjustment into the basic framework of economic policy."
>
> "With the progressive liberalization of world trade, developing countries can no longer resort to the export-oriented economic growth policy through the protection of domestic industries. Therefore, competition policy should be put into operation from the early stage of economic development to respond pro-actively and promptly to the rapidly changing economic conditions at home and abroad. Greater competition will ensure that unrestrained interaction of competitive forces will yield the best allocation of economic resources, thereby helping promising small and medium enterprises to grow on market-driven foundations and form a healthy industrial platform" (Korea 2001, pages 3 and 4).

116. For policymakers convinced of the need for industrial policies to groom internationally competitive firms or "national champions", one implication of the Korean experience is that mitigating the adverse domestic side effects of such a policy will require measures, such as the enforcement of competition law, that stimulate or ensure rivalry between these firms.

3. Chinese Taipei

117. The role of government intervention in the economy of Chinese Taipei is generally regarded as having been on a smaller scale than in Korea, with a greater role ascribed to market forces. Rodrik (1995) summarizes the findings of one leading analyst of development in Chinese Taipei:

> "Wade (1990) does not deny that there were elements of the free-market (i.e. [Hong Kong, China]) recipe in the [Chinese Taipei] strategy, but he qualifies the picture significantly. He calls [Chinese Taipei] a [regulated] market economy, characterized by: (i) high levels of investment, (ii) more investment in certain key industries that would have resulted in the absence of … intervention; and (iii) exposure of many industries to international competition. He documents the pervasiveness of incentives and controls on private firms through import restrictions,

> entry requirements, domestic content requirements, fiscal investment incentives, and concessional credit. He argues that [Chinese Taipei] has consistently acted in anticipation of comparative advantage in such sectors as cotton textiles, plastics, basic metals, shipbuilding, automobiles, and industrial electronics…" Rodrik (1995, pages 2946-7).

118. With reference to official measures that are related to competition law, there is some evidence of selective measures aimed at industrial reorganization. Wade (1990) argues:

> "Industrial reorganization programs—to promote mergers, encourage greater specialization between firms in the same industry, and promote modernization of equipment—have been attempted only selectively. Most of the time the government has encouraged and supported an industry's own efforts at greater specialization and modernization, but has not tried to compel them; and it has been distinctly ambivalent about promoting mergers" (Wade 1990, page 186).

Having said that, Wade goes onto argue:

> "Occasionally, however, the government has taken the initiative in promoting mergers when vital sectors are in trouble. In one such case the government virtually ordered the four polyvinyl chloride (PVC) producers to merge…Another example is the merger of five of [Chinese Taipei's] major synthetic fiber producers in 1977" (Wade 1990, pages 186-7).

119. It would seem that only rarely were policies towards mergers implemented with certain industrial policy goals in mind, and then only in declining industries. Wade (1990, pages 187) also notes that mergers were very infrequently forced on unwilling partners. Government intervention was more prevalent in encouraging long-term relationships between buyers and sellers which, in principle, could have had implications for the enforcement of laws on vertical restraints. However, after describing some initiatives to this effect, Wade argues that:

> "…with long-term subcontracting relations being unfamiliar in [Chinese Taipei], the results have so far been meagre" (Wade 1990, page 187).

120. Interestingly, Wade's account does not point to official toleration or encouragement of cartels in the manufacturing sector of Chinese Taipei. (The authorities did, however, fix the price of certain agricultural products; see Wade 1990, page 302). None of this is to suggest that the Chinese Taipei authorities did not try to influence the degree of competition between firms. (Indeed, Wade does document how entry into markets and access to investment funds were actively regulated by official bodies.) Rather, Wade's account demonstrates that the measures typically associated with relaxed enforcement of competition laws (tolerating cartels, enforced mergers, sympathetic assessments of proposed mergers and vertical restraints) were used rarely, if at all, and when used there is little evidence of their effectiveness.

4. China

121. Over the last two decades, the role that inter-firm rivalry has played in advancing development in China differed from that in Japan, Korea, and Chinese Taipei. Unlike the latter economies, China started from a centrally planned socialist economic system and has subsequently managed its transition towards a socialist market economy (Wang 2002). Throughout this transition, the rate of economic growth in China has regularly exceeded seven or eight percent per annum and tens of millions of people have been lifted out of poverty, especially in the coastal regions. Although much has been written on the

development of the Chinese economy (see, for example, Lardy 1998, Naughton 1995, Nolan 2001, Perkins 2001, Steinfeld 1998, and World Bank 2003a), very few researchers have focused *specifically* on the role that inter-firm rivalry has played in promoting or detracting from China's development.

122. Although this transition has been accomplished without the full range of competition laws, it would be a mistake to suppose that national measures did not deliberately attempt to influence the degree of inter-firm rivalry. In fact, according to Jiang (2002), it is possible to identify three phases when industrial policies had different effects on the degree of competition between firms. Jiang (2002) argues that:

> "From the perspective of market competition, China's industrial policies have undergone three stages of development: (1) from the late 1970s to the mid-1980s, the industrial policies promoted competition; (2) from the mid-1980s, the industrial policies limited competition; and (3) since the mid-1990s, industrial policies have promoted and limited competition in concert" (page 49).

123. During the first phase it is said that the government saw value in injecting some competition into the prevailing economic system; a point that Jiang (2002) makes in the following paragraph:

> "During the economic restructuring in China in the late 1970s, the Chinese government became keenly aware of the drawbacks of central planning and thus began to encourage enterprises to compete with each other to increase output, improve efficiency, develop new products, and increase employee salaries. To effectuate this new emphasis of Chinese industrial policies on competition, the government employed three new policy measures: (1) the encouragement of new enterprises; (2) the encouragement of competition among existing enterprises; and (3) the relaxation of price controls" (page 49).

124. In the refrigerator manufacturing industry, the effect of these policies was to reduce the four firm concentration ratio from 74.5 percent in 1982 to 29.0 percent in 1988. During the same period, total output rose 75 times to 7.576 million units per annum (Jiang 2002, page 57).

125. The growing competition faced by state-owned enterprises caused them increasing difficulties. In China this takes on an additional dimension as these state-owned enterprises are not only large employers but also providers of social and other welfare services. Concerns that increased rivalry was undermining the viability of these enterprises lead, it is argued, the Chinese government from the mid-1980s to the mid-1990s to adopt measures that restricted competition between firms (Jiang 2002, page 58). These measures included those to restrain the establishment of new small and medium-sized enterprises (principally through regulations on construction), measures to restrain competition between rural and state-owned enterprises, and requirements that only designated enterprises would produce certain products.

126. For example, Jiang (2002, page 60) reports that during this epoch the Ministry of Light Industry decided that only five firms were allowed to produce refrigerators. The medium- to long-term effectiveness of these measures has, however, been called into question. Jiang (2002) remarks that:

> "This restrictive policy ultimately worked for only one or two years. With domestic demand snowballing and the refrigerator industry remained lucrative, local governments and enterprises scrambled to build new refrigerator manufacturing firms by bypassing the restrictions of the central government's industrial policy various

> pretexts. Throughout 1987 and 1988 [two and three years after the initial measures were announced], refrigerator production in China reached an all-time high with the addition of an additional 180 refrigerator factories" (page 62).

127. Industrial policies since the mid-1990s are said to have a mixed effect on the degree of inter-firm rivalry. On the one hand, domestic consumers and investors were dissatisfied with the prevailing mix of quality and prices in concentrated industries. Jiang (2002) offers the following account of the decision to promote competition:

> "During the mid-1990s, pressure from three groups prompted the central government to deal with the issue of competition in these monopolistic industries. First, domestic consumers resented the poor quality and unreasonable fees of these industries and demanded improvements in the industries' efficiency and services. Second, new investors wanting to enter these industries began to pressure the central government to address these industries' long-standing monopolies and high profit levels. Third, with China's recent accession to the WTO, China will have to give in to long-standing external pressure to open its service markets. This pressure originally convinced both the central government and the monopolistic industries that they would be unable to compete with transnational companies from foreign countries once China entered into the WTO if they did not break up the monopolies and improve efficiency through competition. As a result, in the past five years, Chinese industries that several large state-owned enterprises formally dominated have reoriented themselves to prepare for foreign competition" (page 64).

128. On the other hand, the continuing erosion in the viability of state-owned enterprises in the mid- to late-1990s—with its attendant consequences for unemployment, labour unrest, and social welfare—is said to have persuaded some Chinese policymakers of the need to moderate competition in certain sectors (Jiang 2002). Typically, it did so by reducing production capacity in an affected sector. In particular,

> "The government focused on closing down five types of small non-state enterprises: coal mines, steel rolling plants, cement factories, refineries, and glass-producing firms. The shutdowns in 1999 accounted for 10%-15% of the production capacity in each of these respective industries. The government believed that the closure of these small enterprises would solve the problem of overproduction and alleviate the pressure of competition on the state-owned enterprises" (Jiang 2002, page 65).

It should be recognized, however, that these policy measures may have been motivated by other concerns; not least the inability of smaller non-state enterprises to meet the social and financial obligations borne by other firms.

129. Yet the extent of rivalry that the Chinese government appears to have decided is best for its own development is increasing, according to Jiang (2002). He contends that since the mid-1990s, the:

> "…Chinese industrial policies widely carried out to support industries in short supply and restrict industries in overproduction have seen their domains dwindling steadily over the last few years. In contrast, antimonopolistic industrial policies are becoming inextricably intertwined with government policies" (page 65).

130. In sum, then, as far as competition in its domestic markets is concerned, Chinese industrial policies have shifted towards encouraging inter-firm rivalry. This has been accomplished without compromising another stated government goal; that of building a cadre of large firms able to withstand competition on world markets (see Box I.B4). Moreover, to

the extent that enhancing competition in the domestic markets is a pre-requisite to performing well on global markets, Chinese industrial policies towards rivalry in domestic markets could well have underpinned the exporting prowess of this select group of firms.

Box I.B4: The creation of a "national team" in China

Nolan (2001) is probably the leading recent analysis of the Chinese policies towards development of internationally-competitive industries or so-called national champions. Nolan starts his discussion by noting that there has been some debate over the relative contribution of large and small firms to economic growth since the program of Chinese economic reforms began in the late 1970s:

"It is widely argued that China's rapid economic development was primarily a result of the explosive growth of small enterprises, often under de facto private ownership. …This was referred to as a 'quiet revolution from below'…In fact large enterprises played a key role in China's economic growth in this period. The Chinese state consciously nurtured a group of large enterprises that it hoped would be able to challenge the world's leading enterprises on the 'global level playing field'" (Nolan 2001, page 16).

During the 1990s, Nolan contends, the perceived need to develop a number of large enterprises as China's means of competing in international markets grew even stronger. Nolan (2001) describes the creation of these enterprises as follows:

"In the 1990s a 'national team' of 120 large enterprise groups was selected by the State Council in two batches, in 1991 and 1997 respectively. These enterprises were predominantly in those sectors considered to be of 'strategic importance', including electricity generation (8), coal mining (3), automobiles (6), electronics (10), iron and steel (8), machinery (14), chemicals (7), construction materials (5), transport (5), aerospace (6) and pharmaceuticals (5)" (page 18).

A number of policies were used to support the growth of the national team. Most importantly, these firms sheltered behind high trade barriers. Foreign firms, it is said, were routinely excluded from access to domestic distribution channels. Chinese officials often chose the

domestic partner with whom a foreign investor could establish a joint venture. As far as investment and innovation of these selected firms are concerned, Nolan (2001) notes:

"Members of the national team typically were given enhanced rights at a relatively early stage in the economic reforms to manage the key aspects of their business, including such fundamental issues as profit retention, investment decisions and rights to engage in international trade. They were permitted to establish their own internal finance companies. They were given the right to manage other state-owned firms within the enterprise group. Many state-run R&D centres were simply transferred to members of the national team, in order to enhance their ability to sustain technical progress" (page 19).

As well as a variety of special rights, the national team received large-scale financial support from the four large state banks, supporting the progress of industrial concentration.

Encouraged by the State Council, the state banks provided favoured access to large-scale loans.

As a result, by the late 1990s, Nolan (2001) contends that:

"the 120 enterprise groups chosen by the State Council were invariably leaders in their industries. The six trial groups in electricity generation and supply, for example, produced over half of China's electricity. The eight metallurgy groups produced 40 per cent of the nation's iron and steel and the six approved vehicle makers manufactured 57 per cent of China's vehicle output. The three civilian airlines controlled over 55 per cent of the domestic market. The groups were based upon large-scale enterprises which were the 'core members of the group' with the 'capability to act as investment centres'… In 1997 the 120 groups accounted for one third of total output value of the whole state-owned sector, they accounted for over 50 per cent of total profits, paid 25 per cent of taxes and made over 25 per cent of all sales. Of the 120 groups less than ten were loss-makers at the end of 1995" (page 20).

5. Summary

131. The purpose of this section of the paper (section D) was to assess the role that inter-firm rivalry and measures to promote or to retard such rivalry have played in the development of four East Asian economies. The goal was not to present a more general account of the effects of industrial policies in East Asia, an objective that would have gone well beyond the remit of this study. Nor was the goal to summarize the current development policies or priorities of the economies concerned. Even with this study's narrower focus, a number of findings have emerged from this foregoing discussion of the extant literature.

132. First, in China and Japan, the state occasionally took measures to constrain competition; and in both cases, scholars have in recent years presented evidence that questions the effectiveness of such measures. Second, the Korean experience was instructive in highlighting that the effective enforcement of competition law is needed to counter the adverse domestic consequences of policies to create national champions. Third, the special problems faced by transition economies was highlighted in the account of China's reforms since the late 1970s. Concerns about employment loss and social dislocation have, it is argued, led to some measures to constrain competition. Yet, the frequency with which such measures are employed seems to have been declining.

133. Overall, any claim that measures constraining rivalry were a central component of development policies, and certainly the view that such measures were effective, is increasingly at odds with the conclusions of more recent empirical research into East Asian development. Recent research on the effectiveness of cartelization in Japan seriously calls into question whether the success of Japan's internationally competitive industries depended on state-sponsored or state-tolerated price-fixing and similar practices. Korean and Chinese experience seems to suggest that policies to create large national firms ought to be complemented by measures to ensure continued rivalry in domestic markets. In sum, this recent literature adds further credibility to the view that the active and appropriate enforcement of competition law in these four East Asian economies would have reinforced rather than compromised their national development strategies.

134. In any case, it is apparent that, regardless of scholarly opinion on the merits or demerits of possible rationales for industrial policy intervention and related empirical experience, for a variety of reasons governments may—from time to time—wish to limit or at least not to give priority to promoting competition in particular markets or sectors. Reflecting this, and as required by the terms of reference for the study, the next section of the study discusses various ways in which potential tensions between competition policy and industrial

policy objectives have traditionally been managed in jurisdictions having active competition polices.

E. MEANS BY WHICH POTENTIAL TENSIONS BETWEEN COMPETITION POLICY AND INDUSTRIAL POLICY OBJECTIVES HAVE TRADITIONALLY BEEN MANAGED

135. The foregoing discussions of possible trade-offs and complementarities between competition policy and industrial policy, that are identified in economic and developmental literature as well as of historical experience in select Asian economies, have suggested that, in a wide range of circumstances, competition law and policy are likely to further dynamic efficiency or other economic goals. Notwithstanding this, it is clear that tensions with industrial policy objectives can still arise in particular circumstances and, in any case, that for a variety of economic, political, and social reasons, governments will sometimes wish to shield particular activities or sectors from the application of competition law or to pursue goals or initiatives that may be in conflict with the objectives of such a law. Consequently, this section of the study discusses various means by which potential tensions between competition law and industrial or other policy objectives have traditionally been managed in economies having active competition regimes, including industrialized and developing economies. *Five* such means are identified, although there may be more. The analysis builds on discussions that have taken place in the WTO Working Group as well as other public sources.

136. *First* and foremost, it should be emphasized that *measures taken by governments in their capacities as sovereign states, even where they tend to restrict competition in markets, are not actionable under the competition laws of most countries having such legislation on the statute books*. For this reason, most of the traditional instruments of industrial policy such as tariffs, subsidies, training programs, public ownership and concessionary financing for exports are most unlikely to be challengeable under competition law. Even regulations or policy directives that deliberately restrict entry to markets or otherwise limit competition (e.g., state-mandated mergers) are unlikely to raise issues under competition law, so long as they are implemented pursuant to valid governmental authority and otherwise meet tests or requirements that may apply under national laws (WTO 1997; see Holmes 1993 for a discussion of relevant US doctrines).

137. A *second* way in which potential tensions between competition law and the attainment of developmental objectives is managed in many countries is through the explicit incorporation of these goals in national competition laws. For example, as has already been pointed out, the Competition Act of 1998 in South Africa includes a multiplicity of objectives (see pages 12 and 13 above).

138. Opinion is divided as to the merits of introducing wider social goals into competition law, and there appears to be a general trend toward focusing on economic efficiency or on consumer welfare as the principal goals of competition policy. The following quotation from a recent submission to the Third OECD Global Forum on Competition by the Republic of Ireland is representative of this point of view:

> "Policy makers may seek to use competition policy to further other (broader) policy objectives such as industrial policy, regional development or the "the public interest," as for example in a public interest test for mergers. There are two reasons why it is best not to use competition policy as a wider policy instrument. First, broadly specified policy objectives can be ambiguous and as such are subject to "capture" or "hijack" by the politically strongest private interests, usually those of producers or workers. Thus *de jure* public interest objectives may *de facto* serve

> private interests. Secondly, non-competition policy mechanisms are generally superior for achieving non-competition policy objectives. To elaborate, restricting competition in an attempt to achieve a broader policy objective will have inevitable anti-competition side effects…" (Ireland 2003b, page 3).

139. Nonetheless, it is beyond dispute that, historically, other goals have frequently been referred to and served to guide the application of national competition laws, in industrialized as well as developing countries.

140. A *third* point to be made is that, even where developmental or similar goals are not explicitly written into competition laws, responsible officials can and increasingly do take into account dynamic as well as static efficiency considerations in the application of relevant laws. Indeed, it is important for the purposes of this study to highlight the fact that, in a growing number of jurisdictions, the actual application of competition law in particular cases has been deliberately adapted to facilitate dynamic efficiency gains. This shift towards greater openness to dynamic efficiency considerations has, in most cases, not required overhauls of competition legislation; rather, it has been achieved through the progressive adaptation of guidelines and the techniques used in case analysis. This trend has been evident since at least the mid-1990s and, in some cases, before then (WTO 1997; see Anderson and Khosla 1995 for a survey of developments in various WTO Member countries).

141. As one illustration of efforts to adapt the application of national competition laws to facilitate and promote the achievement of efficiency gains, in the United States, successive versions of the antitrust agencies' "merger guidelines" over the past two decades have placed progressively greater emphasis on these matters (see US Department of Justice and Federal Trade Commission 1997). As already noted, the concept of "innovation markets" was developed for the specific purpose of ensuring that competition law enforcement in the US is well-adapted to promote rather than impede the realization of dynamic efficiency gains. This concept recognizes that: (i) competition is a key underpinning of innovation; and (ii) anti-competitive mergers or other inter-firm arrangements can undermine the incentives for innovation in particular cases (Gilbert and Sunshine 1995). Such concerns have been the basis for a number of decisions by the US competition agencies to block mergers in a number of cases (Gilbert and Tom 2001).

142. The growing propensity to enforce competition law with considerations of innovation and dynamic efficiency in mind is highlighted in a recent analysis of the evolution of US antitrust policy in the 1990s by Litan and Shapiro (2001). These authors point out that:

> "…the 1990s covered a period during which new technologies had a marked impact on a range of markets, with the Internet and information technology leading the way. Increasingly, the fruits of competition are seen in the form of new technologies which lead to new and improved products. At the same time, intellectual property rights, in the form of patents, copyrights, and trade secrets, increasingly have become a key source of competition advantage for firms controlling such rights. How natural, then, that antitrust authorities have paid more attention to "innovation competition" and intellectual property rights" (page 3).

143. Similarly, after carefully reviewing the enforcement records of US agencies since 1990, Gilbert and Tom (2001) conclude that:

> "innovation is not quite "King" in antitrust authorities, although its role has become increasingly important and has been decisive in several merger and non-merger

> enforcement actions that have potentially very significant impacts for consumer welfare" (page 3).

144. It is noteworthy that this shift towards the more long-term consequences of firm practices was effected without any change in US antitrust statutes. Rather, it was achieved through the progressive adaptation of guidelines and techniques employed in case analysis.

145. One area in which the application of competition law in some countries has had a particularly clear focus on facilitating the realization of dynamic efficiency gains involves the application of such law to the exercise of intellectual property rights (see, generally, Anderson and Gallini 1998, Muris 2001 and American Bar Association 2002. Indeed, it is worth emphasizing that, in many countries, competition law has long been recognized as helping to balance and prevent potential abuses associated with the exercise of intellectual property rights. The WTO Working Group has had a wide-ranging discussion of these issues (see Anderson 2002). Consistent with recent learning in this field, in the Working Group, the view has been expressed that, in many cases, the exercise of intellectual property rights (IPRs) is consistent with the goals and objectives of competition policy, in that IPRs promote innovation annd thereby contribute to enhanced competition and dynamic efficiency. Nevertheless, the maintenance of a proper balance between the incentives for innovation and access to new technology depends critically on competition law being appropriately applied to the exercise of intellectual rights. As stated in the Working Group's Annual Report for 1998,

> "A proper application of competition law should avoid two extremes: too stringent an application could lessen innovation; an ineffective or insufficient application could result in an over-extended grant of market power. Both outcomes would have an adverse effect on output as well as an inhibiting effect on trade."[27]

146. It is worth noting, in this connection, that Guidelines issued by both the US and Canadian competition authorities in the 1990s give specific guidance on the application of competition law vis-à-vis intellectual property rights.[28]

147. A *fourth* way in which potential tensions between competition law or policy and the attainment of industrial policy objectives can be managed, that has been employed in virtually all jurisdictions having national competition laws, is to allow for exemptions, exceptions, and exclusions from competition law.[29] Almost all jurisdictions with competition statutes have some exemptions and exclusions. An analysis of relevant exceptions, exemptions and exclusions prepared by the Secretariat for the Working Group in 2001 makes the following observations relevant to this issue:

> "On the basis of written and oral contributions that have been made by Members to the Working Group, it is clear that the terms "exception", "exemption" and "exclusion" can have specific meanings in the context of particular national legal

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[27] WTO (1998b), paragraph 117.

[28] US Department of Justice and Federal Trade Commission (1995) and Canada Competition Bureau (2000).

[29] One important trade-related exception to national cartel laws relates to so-called export cartels. Scherer (1994 page 45) describes these cartels as follows:

> "…export cartels (often called export associations) might be formed to save selling, financing, and customs paperwork costs by letting a common sales organization handle the transactions of multiple domestic producers, including firms too small to mount their own export campaigns. In this case, both buyers and sellers may gain."

systems. Nevertheless, at a general level, the terms have been used somewhat interchangeably by Members to refer, variously, to sectors and/or areas of activity and/or categories of conduct that either are excluded altogether from the application of national competition law or are subject to differential treatment under such laws. The term "authorization" has also been used to refer to instances when conduct that would otherwise be prohibited by the domestic competition law is permitted."

"The breadth of exceptions, exemptions and exclusions varies significantly across countries. To some extent, this appears merely to reflect the fact that some countries rely less on express legislative provisions and more on the enforcement process in determining whether a particular activity or instance of conduct should not be covered by the domestic competition law or should be subject to special treatment under the law."

"Other differences in national approaches should also be noted. In some cases, the criteria used to determine whether an exception, exemption or exclusion are broad and general, whereas in other cases, the criteria are extremely detailed. In some jurisdictions, the question of whether an exception, exemption or exclusion applies depends on the outcome of a potentially extensive case-by-case or "rule of reason" analysis. In others, guidelines, regulations or block exemptions are used to give guidance in at least a portion of the cases."

"In categorising exceptions, exemptions and exclusions under national competition law, a basic distinction to be drawn is that between, on the one hand, exceptions, exemptions or exclusions of a sectoral nature and, on the other hand, those of a non-sectoral nature. Sectoral exceptions, exemptions and exclusions often reflect historical decisions, based on political and economic rationales that may be specific to the country in question. Sectors may be entirely or partially excluded. A related distinction is that between, on the one hand, explicit exceptions, exemptions and exclusions and, on the other hand, implicit ones. The former are typically contained in legislation or regulations whereas the latter arise when the application of competition law is displaced by industry-specific regulatory regimes or other manifestations of state ownership or direction. Sometimes, the relevant industry-specific regulation expressly states that the competition law does not apply. In other cases, legal principles or doctrines exist that provide that laws of general application, such as the domestic competition law, must defer to more specific legislation."

"Regarding non-sectoral exceptions, exemptions and exclusions, these often relate to specific business arrangements or practices that, although *prima facie* anti-competitive or potentially so, are deemed in particular circumstances to enhance efficiency and/or strengthen competition. Such arrangements or practices may, alternatively, be considered to have ambiguous effects with respect to competition and, therefore, be subjected to a case-by-case analysis to determine whether or not they are prohibited. Exceptions, exemptions or exclusions may also exist in relation to state-owned enterprises or government-encouraged or sanctioned business practices."

"Finally, some regimes provide that the prohibitions contained in the domestic competition law do not apply if the conduct or activity in question does not have an "appreciable" effect on competition. These are sometimes referred to as "de minimis" exceptions."[30]

[30] Exceptions, exemptions and exclusions contained in Members' National Competition Legislation (WT/WGTCP/W/172, 6 July 2001).

148. The rationale for exemptions from national competition laws has been clearly articulated by the Chairman of the Australian Competition and Consumer Commission:

> "A competition regime needs to operate in conjunction with other government policies. Inevitably, conflict between policies will arise and it will therefore be necessary to determine priorities based on an assessment of national interests. For this reason, a mechanism is needed to provide for exceptions from the general application of a competition regime" (Fels 2001, pages 3 and 4).

149. The competition law of the European Community contains several exceptions and exemptions and is a case in point.[31] In a speech in 1995[32] on the coverage of and exemptions from European Community competition rules, a senior official from the European Commission made the following statements:

> "The only sectoral exception forseen in the EC treaty concerns agricultural products. The competition rules apply to this sector only to the extent that the Council specifies it by a particular regulation" (Schaub 1995, page 4).

And,

> "In the context of defense [national security] states may also claim an exception from the rules of competition, but this happens very rarely and is subject to scrutiny by the Commission" (Schaub 1995, page 5).

So far as general exceptions are concerned, Schaub stated:

> "The EC Treaty specifies one or more general exception to the principle of universal applicability of the competition rules to all undertakings. Article 90(2) lays down that (public or private) undertakings which are entrusted with the operation of services of general interest are subject to the rules of competition in so far as the application of such rules does not obstruct, in law or in fact, the particular tasks assigned to them" (page 4).

150. Moreover, the European Commission has the power to grant exceptions to the prohibition against cartels. Schaub (1995) states:

> "The Commission can grant individual exemptions under the four conditions laid down in Article 85(3) of the EC Treaty. The agreement in question:
>
> 1. must contribute to improving the production or distribution of goods or to promoting technical or economic progress
>
> 2. must allow consumers a fair share of the resulting benefits

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[31] OECD (1995) contains a description of some of the exemptions and exclusions found in other jurisdiction's competition laws.

[32] This speech was not chosen because it represents a statement about the current state of European Community competition law. Rather, it was chosen because it highlights the different types of exceptions and exclusions that can (and, at one point in time, certainly did) exist in a major jurisdiction.

3. may not impose on the undertakings concerned restrictions which are not indispensable to the attainment of these objectives, and

4. may not afford such undertakings the possibility of eliminating competition in respect of a substantial part of the products in question" (page 4).

151. This last statement is important as it shows that jurisdictions need not specify all of the exceptions at the time of enactment of the competition law. Procedures can be established to grant and revoke exemptions, exceptions, and exclusions from national competition law. This creates considerable flexibility for national governments and enforcement officials; flexibility that, it must be admitted, can be used or abused.

152. The *fifth* option would be to allow a governmental body to overrule a decision made by the competition enforcement agency on the grounds that national development priorities would be compromised. The former governmental body could be the national cabinet, the head of government, or a minister. Although some nations' competition laws, for example Germany's, provide for such overrides in certain well-defined circumstances, the clear trend is toward eliminating such overrides and strengthening the independence of the agencies that enforce competition law (WTO 1997; see also Anderson and Khosla 1995).

F. IMPLICATIONS OF POSSIBLE PROVISIONS OF A MULTILATERAL FRAMEWORK ON COMPETITION POLICY FOR INDUSTRIAL/ECONOMIC POLICY OPTIONS

153. This section of the study reflects on the potential implications of possible provisions of a multilateral framework on competition policy for the attainment of efficiency gains and other industrial policy objectives. As one means of shedding light on this issue, attention is given to the question of whether current proposals for a multilateral framework on competition policy would have the effect of limiting access to the five traditional means for managing potential tensions between competition law and industrial policy objectives that were discussed in the preceding section.

154. As a preliminary comment, it is recognized that no agreement has, as yet, been reached in the Working Group on the elements of a multilateral framework on competition policy, in the event that such a framework should be developed. Consequently, in order to assess whether a multilateral framework might limit the ability of countries to achieve dynamic efficiencies or other industrial policy goals, it is necessary to make certain assumptions about the possible contents of such a framework. For purposes of this assessment, the author has relied on the various elements that are set out in paragraph 25 of the Doha Ministerial Declaration and on related proposals by the proponents of a multilateral framework and clarifications that have been offered in the Working Group, as well as existing summaries of those proposals.[33] These sources indicate that the proposals for a multilateral framework on competition policy contain the following main elements:

– A commitment by WTO Members to a set of core principles relating to the application of competition law and policy. The latter would include, at a minimum, principles relating to transparency, non-discrimination, and procedural fairness in the application of such law and/or policy.

– A parallel commitment to the taking of measures against hardcore cartels.

[33] See, e.g., Anderson and Jenny (2001), Anderson and Holmes (2002), page 35 and Anderson (2003).

– The development of modalities for cooperation between Member states on competition policy issues. The proposed modalities could encompass cooperation on national legislation, the exchange of national experience by competition authorities and aspects of enforcement. The submissions of most Members on this point (in addition to the wording of paragraph 25 of the Doha Ministerial Declaration) suggest that the proposed modalities would be voluntary in nature.[34]

– A commitment to ongoing support for the introduction/strengthening of competition institutions in developing countries through enhanced technical assistance and capacity building, in the framework of the WTO but in cooperation with other interested organizations and national governments.

It is worth emphasizing that, according to the proponents of a multilateral framework, the foregoing elements are *not* aimed at the international "harmonization" of competition law, in the sense of seeking to ensure uniform approaches to competition law and policy at the national level.[35]

155. It is recognized that, to the extent that the eventual contents of any framework differ from the foregoing elements, the conclusions below with respect to the implications for industrial and economic policy options might have to qualified or revised.

156. With the above as a point of departure, and focusing on whether a framework would affect the availability of the various tools for managing any potential tensions between competition and industrial policy goals that are noted above, the following questions seem relevant.

157. First, it is important to ask whether a multilateral framework on competition policy would be directed at government measures that restrain competition. Or would such a framework focus on anti-competitive acts of enterprises and their treatment under national competition laws? In this regard, relevant proposals of Members make it clear that the focus is on private anti-competitive practices, with particular reference to hardcore cartels. With regard to the second question noted, the contribution of the European Community and its member States (EC) on core principles focuses on the implications of potential provisions for competition law and not for industrial policy more generally. In the case of the proposed provision on non-discrimination, the EC states that:

> "In other words, what would be at issue would be the *treatment accorded to firms pursuant to the terms of domestic competition laws* as such, and not the treatment accorded to firms under a range of other policies" (EC 2002, page 4).

158. Moreover, in the specific context of national treatment, the EC has stated that:

> "We are not proposing that a competition agreement should seek to introduce an absolute standard of national treatment to be applied to *any form* of government law or regulation" (EC 2002, page 4).

159. This matter could be further clarified for the potential provisions on procedural fairness and transparency. If the latter provisions are intended to have the same scope as those for non-discrimination, it would appear then that most—if not all—kinds of industrial policy

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[34] At least one delegation, Thailand, has questioned whether the possible modalities for cooperation should indeed be voluntary in nature. See Thailand (2002a) and paragraphs 246-248 below.

[35] WTO 2002e, paragraph 14.

instruments (i.e., those consisting of government measures that are outside the scope of competition law) would be unconstrained by a multilateral framework on competition.

160. Further to this point, the observation has been made in the Working Group that inter-governmental or state-to-state arrangements would not be covered by a WTO agreement on competition policy, which would be aimed at anti-competitive practices of enterprises. The observation appears to have been intended to confirm that arrangements such as OPEC[36] would not be affected by a multilateral framework. In support of this interpretation, the point has also been noted in the Working Group that, in the UN Set of Multilaterally Agreed Equitable Principles and Rules, there is a specific provision (Paragraph B.9) which makes it clear that the Set does not apply to intergovernmental agreements nor to restrictive business practices directly resulting from such agreements.[37]

161. With regard to the second tool for managing potential tensions noted above, namely Members' ability to define the objectives of their national competition laws, no proposal has been put forward to constrain the objectives that would be incorporated in relevant national laws. The following excerpt from the Annual Report of the Working Group for 2002 is also germane to this point:

> "the proponents also affirmed their belief that the proposed multilateral framework could and should preserve adequate "policy space" for developing countries to pursue economic and social policies they deemed necessary for their own development. It is perfectly legitimate for a government to decide that there were policy goals which overrode the need to protect competition" (WTO 2002e, page 15).

162. With regard to the third tool for managing possible tensions between national competition and industrial policies discussed in the preceding section, namely the ability to tailor the application of competition law to take into consideration possible implications for innovation and dynamic efficiency, it is worthwhile to ask what implications, if any, would a multilateral framework have for the factors that a nation can take into account when it enforces its competition law? In particular, would such a framework prevent a Member from taking into account long-term or dynamic factors and evidence when implementing its competition law?

163. In answer to this question, nothing in the proposals would seem to rule out tailoring the application of competition law to promote innovation or dynamic efficiency gains. Indeed, as already noted, the proposals do not seek to limit the criteria to be employed in the application of national competition law. Moreover, in principle, nothing prevents any potential provisions on core principles being drafted in such a way that non-economic factors, short-term factors, and long-term factors are stated as permissible considerations during the enforcement of competition law.

164. With regard to the fourth tool for managing possible tensions between national competition policies and industrial policy objectives, namely the ability to implement relevant exceptions, exemptions and exclusions, the following excerpt from the Annual Report of the Working Group for 2002 is pertinent:

> "With regard to the relevance of exceptions and/or exemptions from national competition laws and/or from a multilateral framework as a tool for managing any conflicts with national industrial policies, the view was expressed that given the diversity in stages and patterns of economic development among Members, sufficient

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[36] For a description of various aspects of this arrangement see Scherer (1994 pages 47-48).
[37] WTO (2001), paragraph 58.

> flexibility had to be incorporated in any possible framework to make it workable among all WTO Members. A multilateral framework on competition had to provide for the possibility of appropriate exemptions or exclusions in two respects. First, many Members – including LDCs and other developing countries, but also some industrialized countries – wished to provide greater flexibility for small and medium-sized enterprises than for other firms under their competition laws. The proposed framework should permit this kind of flexibility. Second, as mentioned above, national interests might be safeguarded simply by providing for exclusion of sensitive economic sectors altogether from the substantive provisions of a multilateral framework, or from some of the core principles. Provisions for exemptions and exceptions would provide greater flexibility for WTO Members to achieve other national objectives such as industrial and economic development. Exceptions and exemptions must, however, be subject to appropriate transparency procedures, in order that firms trading with a Member or investing in a Member's economy would know where they stood. The suggestion was also made that the ability to implement exemptions should not be phased out over time, or be subject to periodic review" (WTO 2002e, page 15).

165. Moreover, one leading proponent of a multilateral framework has recognized the importance of this issue and proposed that a flexible approach be taken to this matter. Specifically, the Delegation of the European Community and its Member States argues:

> "The issue of sectoral exclusions and exemptions from the scope and application of competition law is of great importance from both a competition and a trade perspective. At the same time it must be acknowledged that it constitutes a question of great sensitivity and complexity both among developing countries as well as several OECD members, including the EC. Some countries have made the point that, in order to gather consensus for the introduction of competition legislation, it has proved necessary to introduce certain sectoral exclusions and exemptions, but that these have then been limited over time. When analysing the recent developments, the trend has clearly been to eliminate such exclusions or to define them in increasingly narrow terms. We suggest that a flexible approach would be to focus - at this stage - on the essential question of transparency and its application to sectoral exclusions and exemptions, as well as their review over time. For instance, the Working Group could also usefully examine the experience of WTO Members who have phased out exemptions and exclusions (including the reasons for and the timing of such phasing out), as well as the domestic processes employed to enact such exemptions and exclusions" (EC 2002b, pages 6 and 7).

166. With regard to the fifth tool for managing possible tensions between national competition policies and industrial policy objectives, namely the possibility of ministerial over-rides or similar mechanisms, there is no text in the current proposals that specifically addresses this matter. As noted earlier, the Annual Report of the Working Group in 2002 states that some proponents of a multilateral framework have argued that other national objectives can over-ride the goal of protecting competition. It might be worth clarifying whether the provisions on core principles would apply to both the agency with primary responsibility for enforcing a nation's competition law and the state body that can over-ride this agency.

167. The foregoing discussion has highlighted the continued availability, under the proposals that have been put forward for a multilateral framework on competition policy, of means by which governments traditionally have managed potential tensions between the application of competition law and the attainment of dynamic efficiency gains or other developmental goals. As has been made clear, the current proposals would not impede the

realization of dynamic efficiency gains by developing economies and might well contribute to it - and to the extent that they reinforce and encourage the sound application of competition law in these countries. As well, the preceding discussion provides insights into two related concerns that have been raised in the Working Group on the Interaction between Trade and Competition Policy: (i) the ability of governments to implement competition law provisions dealing with mergers in a way that discriminates against non-domestic firms (or in favour of domestic firms); and (ii) the ability of firms to implement certain inter-firm agreements that (in contrast to hardcore cartels) are believed to yield efficiencies or other benefits such as export enhancement.

168. With regard to the ability of countries to discriminate in favour of mergers involving domestic firms (or to discriminate against foreign takeovers of domestic firms), without commenting on the merits or demerits of such a policy, it would seem that the incorporation an explicitly discriminatory standard directly intoa national competition law might well raise concerns in relation to the core principle of national treatment. However, and depending on the wording of any eventual agreement, the same result might be achievable if: (i) the policy is implemented pursuant to foreign investment legislation rather than competition legislation; and/or (ii) the policy is implemented through an exception or over-ride provision written into the competition law in a manner consistent with the terms of a multilateral framework. In a number of cases it appears that Members have implemented or can implement policies having this effect through government investment policies, which would not normally come under competition law.

169. With regard to potential efficiencies or other benefits arising from inter-firm agreements (for example, agreements relating to pro-competitive joint ventures), discussions in the Working Group have raised the question of whether the ability to realise these could be circumscribed by a possible multilateral framework, in particular by the proposed provisions on hardcore cartels (WTO 2002e, page 20). The answer to this question would depend on the way in which a provision on hardcore cartels in a multilateral framework is drafted. In this regard, the proposals for provisions on hardcore cartels that have so far been submitted have *not* specified that Members would be required to adopt a *per se* as opposed to a rule of reason approach in this area. Furthermore,, the approach taken in the OECD Council Recommendation Concerning Effective Action against Hard Core Cartels, which has been referred to extensively as a point of reference in relevant debates in the Working Group, defines hardcore cartels so as to exclude, for example, agreements that result in the lawful realization of cost-reducing efficiencies (OECD 1998, also cited in EC 2002a, page 6). The ability to implement appropriate exceptions, exemptions or exclusions from relevant general prohibitions in a national competition law, which has been emphasized in the proposals of Members favouring the development of a multilateral framework, also seems relevant to this question. Consequently, it appears that a multilateral framework on competition policy and particularly the commitments on harcore cartels which have been proposed as a part of such a framework are not intended to and need not affect the ability of countries to permit agreements that result in genuine efficiency gains or other public benefits.

II. RESOURCE IMPLICATIONS OF ADOPTING A MULTILATERAL FRAMEWORK ON COMPETITION POLICY

170. In this part of the study the different types, and possible magnitudes, of resource implications associated with the adoption of a multilateral framework on competition policy are discussed. As in Part I, and for the reasons stated therein, it is noted that the current proposals for such a framework comprise of:

– A commitment by WTO Members to a set of core principles relating to the application of competition law and policy, including transparency, non-discrimination, and procedural fairness in the application of competition law and/or policy.

– A parallel commitment to the taking of measures against hardcore cartels.

– The development of modalities for cooperation between Member states on competition policy issues. These would be of a voluntary nature[38], and could encompass cooperation on national legislation, the exchange of national experience by competition authorities and aspects of enforcement.

– A commitment to ongoing support for the introduction and strengthening of competition institutions in developing countries through enhanced technical assistance and capacity building, in the framework of the WTO but in cooperation with other interested organizations and national governments.

171. The contributions made by various WTO Members on the potential elements of a multilateral framework provide useful elaboration on the foregoing points and are listed and in some cases described in WTO (2002a,b,c,d,e). A list of the contributions by WTO Members to the Working Group on each of the four items described above can be found in Appendices II.A-D to this study.

172. Before examining the resource implications of the possible adoption of each of these provisions, a number of general observations are called for.

173. First, according to the Annual Report of the Working Group in 2002, adherence to these provisions would not necessarily require the adoption of a comprehensive competition law; that is, of a law containing provisions on substantive areas of competition law other than that of hardcore cartels. In this regard, the Annual Report notes that the proponents of a multilateral framework on competition have stated that:

> "…the suggestion that all WTO Members ought to have a competition law did not imply that such laws had to cover all types of anti-competitive behaviour; the only practice that would have to be addressed in some way was hard core cartels– preferably both domestic and international cartels" (WTO 2002e, page 29).

174. For this reason, the actual outlays of competition enforcement agencies that implement many different types of competition law will, other things being equal, overstate the costs of adopting the proposed provisions of a multilateral framework on competition policy. This argument might be borne in mind when interpreting reported levels of government spending on competition agencies.

175. Second, the proponents of a multilateral framework have stated that adherence to the proposed provisions would not necessarily require the establishment of a distinct governmental body to administer the national competition law or laws. The Annual Report of the Working Group in 2002 states that:

> "It was not strictly necessary to have an administrative body called a competition authority, but only an identified and sufficiently equipped enforcement capacity of some kind" (WTO 2002e, page 29).

[38] At least one delegation, Thailand, has questioned whether the possible modalities for cooperation should indeed be voluntary in nature (Thailand 2002a). The resource implications of this approach are discussed later in this section.

In addition, the possibility that the requirements of any multilateral framework might be satisfied through regional as opposed to national laws and bodies has been explicitly referred to by the proponents in the WTO Working Group.

176. The foregoing observation is significant since a government may well determine that the enforcement of the nation's competition laws will be undertaken by an existing state agency that already has some, or even all, of the requisite expertise. For example, a sectoral regulator with an established record of investigative powers and capacity to analyze markets could well take on the responsibility of enforcing competition law. This observation is potentially important because expanding an existing government agency may be less costly than establishing a completely new agency. To the extent that an existing agency's staff is under-utilized and has some of the expertise needed to implement competition law, then the costs of expanding the former will be even lower. Of course, the relevance of this observation will vary from jurisdiction to jurisdiction.

177. The third general observation is that the proponents of a multilateral framework on competition policy have made it clear that they are *not* calling for WTO Members to implement a uniform or harmonized approach to competition law. One proponent put it this way:

> "…a framework agreement would not require the harmonisation of domestic competition law" (EC 2002b, page 1).

178. This remark is important especially in the light of the fact that the number of jurisdictions that have enacted some form of competition law has doubled since 1985 (see table II.T1). Of particular interest to this discussion is the fact that at least 15 developing countries were enforcing their cartel laws in the late 1990s.[39] In fact, the resources expended by latter developing economies probably provide a better guide to other developing economies of the costs of adhering to a multilateral framework than the budgetary outlays reported on competition enforcement agencies in industrial jurisdictions, such as the EU and the US.[40]

Table II.T1: Since 1985 the number of jurisdictions with competition laws has doubled[41]

Years	Number of jurisdictions enacting a competition law for the first time
1985-1990	8
1991-1995	25
1996-2000	16
Total for 1985-2000	49
Note: Excluding the European Union, 80 jurisdictions were reported to have some form of competition law in 2001.	

[39] A point that is taken up again in part III of this study.

[40] It might be noted that one of the factors that determines how relevant are reported budgetary outlays on competition enforcement in a given developing country to another developing country is the extent to which the former's enforcement efforts are appropriately funded.

[41] Estimates differ on the number of jurisdictions that have competition laws. Some contributions to the Working Group note that just under a 100 jurisdictions have some form of competition law. The White & Case study was reported here because for the last few years this law firm has tried to survey this matter on worldwide basis. This is, of course, no guarantee that the survey has been executed consistently over time.

Source: White & Case (2001)

179. The fourth general observation is that nations differ markedly, not only in terms of whether they have enacted competition laws, but also in the extent to which they have enforced such laws. This implies that the resource implications of adhering to the provisions of a multilateral framework are likely to be highly *nation-specific*. In addition to different experiences with competition law and enforcement, nations at the same level of development differ in the cost of hiring skilled labour.

180. In the light of the last two observations, it is inappropriate to generalize about the resource costs of adhering to a multilateral framework on competition. Sweeping statements about the potential implementation costs faced by classes of economies should be treated with considerable skepticism.

181. The final general observation is that it is misleading to consider the costs of adhering to a multilateral framework on competition policy independently of the potential benefits from doing so. This point is not just that a full evaluation should consider both. Rather, the costs incurred determine in large part the magnitude of a number of different benefits of a multilateral framework.

182. For example, after establishing a reputation for taking strong action against cartels, the annual recurring cost of enforcement may well be lower than enforcing a cartel law with modest deterrents; if only because the case load in the former situation is likely to be lower. Moreover, the stronger deterrence will reduce the harm inflicted on customers by the cartels that still form.[42] Ironically, the relatively weaker enforcement regime may end up spending over the longer term more state resources on cartel investigations, and this is after their consumers have been harmed by a greater number of cartels.

183. In other situations, the costs of enforcing certain provisions of a multilateral framework on competition policy may well be high precisely because the benefits are considerable. Given the voluntary nature of almost all mechanisms for cooperation between competition agencies, enforcement officials will only incur the costs of cooperation if the benefits from doing so exceed those costs. This further highlights the dangers of thinking about the costs of a multilateral framework without considering the associated benefits.

184. In the remainder of this section, the resource implications of adopting different provisions of a potential multilateral framework on competition are discussed in turn.

A. PROPOSALS REGARDING CORE PRINCIPLES

185. This subsection deals, in turn, with the current proposals regarding transparency, non-discrimination, and procedural fairness.

1. Proposals regarding transparency

186. The Annual Report of the Working Group in 2002 describes the potential elements of a provision on transparency in following way:

> "In the field of competition policy, a transparency commitment would apply to laws, regulations, and guidelines of general application. There would be an obligation upon WTO Members to ensure the publication of such laws, regulations and guidelines in a

[42] Some evidence on the deterrent effects of stronger cartel enforcement regimes is presented in part III of this study.

comprehensive and timely manner. This might be done either in print in an official gazette, journal or the like, or possibly on a publicly accessible website" (WTO 2002e, page 6).

187. This document also notes that:

"A further aspect of transparency would be an obligation on WTO Members to notify their laws, regulations and guidelines as well as sectoral exclusions and exemptions to the WTO."

188. With respect to the scope and coverage of a provision on transparency, an issue arises as to whether all competition enforcement decisions that have precedential value would have to be reported to the WTO. The Annual Report of the Working Group in 2002 states that:

"With regard to the possible criterion of whether an individual decision had precedential value, at least in common law jurisdictions, this was an extremely broad class of decisions because all the court and agency decisions – at least the published ones – could have precedential effect. Thus, according to this standard, any decision by the courts of the United States – not only in government-initiated cases but also in privately-initiated ones - could potentially be caught by a notification requirement. A requirement to publish and notify policies and decisions that were not explicitly meant to be "competition laws", but that nonetheless de facto bore on competition might also be burdensome" (WTO 2002e, pages 6 and 7).

189. In assessing the resource implications of a provision on transparency, it will be assumed here that this provision would apply to all of the competition laws that a nation has enacted. For countries without any competition laws at the moment, assuming the adoption of a multilateral framework on competition policy results in the enactment of (at least) a law on hardcore cartels, then the scope of the transparency provision would extend to whatever laws were subsequently enacted.

190. The additional expenses incurred by a WTO Member from publishing the relevant laws, regulations, and administrative guidelines, and in making the notifications described in the first quotation above, would depend on their current practice. In Members where the publication of laws, regulations, and administrative guidelines is the norm, then the only transparency-related expense would be that of notification to the WTO. Otherwise, the costs of publication would have to be added to those of notification to the WTO.

191. It would be a mistake to believe that the only resource implications of a provision on transparency are on the cost side, especially for those economies where transparency of government regulations is not the norm. The following five effects of improved transparency in competition enforcement can be identified:

– Improved transparency can reduce the uncertainty surrounding official decision-making, so facilitating business planning and voluntary compliance with the law. In this way, enhancing transparency may actually reduce the need for costly enforcement proceedings.

– Improved transparency attenuates poor governance practices, which can act as a drain on private sector initiative and resources.

– Improved transparency can reduce the likelihood of discrimination against any class of firms, as official actions and decisions tend to be reported afterwards.

– Improved transparency facilitates procedural fairness.

– Improved transparency by a competition enforcement agency helps build confidence with other jurisdictions' competition enforcement agencies, so facilitating voluntary cooperation.

192. As this list makes clear, improved transparency complements the objectives of the other potential provisions of a multilateral framework of competition policy.

193. In jurisdictions where the decisions of the competition enforcement agency can be challenged in court, to the extent that improvements in transparency result in fewer procedural irregularities that can be subsequently challenged in judicial proceedings, then the resources saved in contesting such challenges will reduce state outlays. It would be a mistake, therefore, to focus solely on the additional costs to the government of improving transparency.

194. In a proper assessment of the resource implications of a provision on transparency the five benefits outlined above would be compared to any additional government outlays. However, for nations where the publication of laws and alike is the norm the calculus is narrower with the principal implication for resources would be the cost of notification of materials to the WTO.

2. Proposals regarding non-discrimination

195. In part I of this study a distinction was drawn between *de jure* discrimination in competition laws and *de facto* discrimination in the enforcement of those laws (see paragraph 64.) Moreover, it was noted (in paragraph 158) that the proponents of a multilateral framework only envisage disciplines on *de jure* discrimination and have explicitly ruled out provisions requiring de facto non-discrimination in the enforcement of competition law. This is not to suggest that the latter is not desirable, but rather to identify for the purposes of the present discussion what matters are at stake.

196. Turning to the resource implications of proposals for a ban on *de jure* discrimination, it is unclear that there would be additional resource costs incurred by a WTO Member that has no discriminatory provisions in its competition statutes.

197. For a WTO Member with discriminatory competition laws, the adoption of current proposals on non-discrimination would necessitate the repeal of the relevant sections of those laws and possibly their replacement with other provisions; all of which may involve some costs for the Member. Moreover, to the extent that the changes in their competition laws lead to changes in the manner in which those laws are enforced, then there may be costs associated with this transition. However, it is quite possible that such a WTO Member may move from having two distinct procedures for implementing a given competition law (one for domestic firms and one for cases where foreign firms are involved) to having a single procedure which, in turn, may be less expensive to implement. Therefore, generalizations about the resource costs of eliminating non-discrimination provisions in competition law—along the lines contained in current proposals for a multilateral framework on competition policy - seem unwarranted.

3. Proposals regarding procedural fairness

198. The relevance of procedural fairness and the potential components of a provision on this subject were described in the Annual Report of the Working Group in 2002 in the following terms:

> "With regard to the principle of procedural fairness, the view was expressed that a common feature of all effective competition policy regimes was that they included guarantees that the rights of parties facing adverse decisions and sanctions would be recognized and respected. Such guarantees could vary both in content and in form, because they reflected the tools of the legal system and the traditions that had generated the competition regime. Four broad categories of guarantees were relevant. First, there should be guarantees relating to access to the system. For example, this could involve the right of firms to have notice that a formal investigation by the competition authority was pending against them, and what the authority's objections to their conduct were. A second basic guarantee related to the defence of the firms involved. Firms should have the opportunity and the time to make their views known to the authority in writing or by participating in hearings, by submitting evidentiary proof or documents, and by having an opportunity to introduce testimony from witnesses who might corroborate their views on the facts. These types of guarantees would typically include some right of access to the authority's file. A third guarantee was the right of firms involved in competition proceedings to have decisions affecting them reviewed by an independent judicial body. Finally, the protection of confidential information, including business secrets, should also be guaranteed. These basic guarantees did not need to be harmonized across regimes, but should be described in a future agreement with some clarity. Another view was that four broad concepts could be identified that were likely to promote fairness, namely: (i) the right of access and rights to petition a competition authority; (ii) the right of a firm subject to an investigation to know the basis for an antitrust authority's objection before the authority took action, and the right of that firm to respond; (iii) the right to appeal an agency's decision; and (iv) timeliness" (WTO 2002e, page 11).

199. In assessing the resource implications of a provision on procedural fairness, much will depend on whether a WTO Member's existing legal system and its competition enforcement practices meets the standards described above. If they do, then there are unlikely to be any major resource implications. The remainder of this section is devoted to considering the situation where a WTO Member may not have the institutions and practices in place to currently meet the provisions outlined above.

200. In the case of the guarantees to access to the legal system and rights of defense, there may be additional resource costs associated with notifying affected parties and in establishing mechanisms to allow those parties to submit information and statements to the enforcement agency. It would appear, however, that there is no requirement that the enforcement agency process, read, analyze, or respond to the submission made by firms; which economizes on employee time and so on resource costs. The most significant implication of providing these two guarantees is that, in some cases, they may increase the time taken to make an enforcement decision and this may be associated with greater outlays. Arguably, these latter effects are to be compared to be benefits to enforcement agencies of having submissions from all of the relevant interested parties.

201. In the case of the right to appeal, it is noteworthy that existing WTO agreements have taken a practical approach to this matter and have taken into account differences in jurisdictions' legal cultures and systems. Proponents of a multilateral framework on competition policy have argued for a similarly practical approach to this matter in this context also (WTO 2002e, page 12).

202. Arguably, procedural fairness is one of pre-requisites for a stable and predictable business environment. For example, it is difficult to see how domestic and foreign firms could plan with any degree of confidence and security if they suspected that confidential

information collected during an enforcement action would not be protected. Without procedural fairness, investment would suffer and planning horizons would inevitably shorten.

203. To summarize, ensuring procedural fairness is common in many jurisdictions. It is quite likely that most nations' current legal systems, at least on paper, meet the requirements of a provision on procedural fairness in a multilateral framework on competition policy. For other nations, there are compelling arguments for instituting procedural fairness irrespective of the potential implementation of a multilateral framework on competition policy.

4. Proposals regarding Special and Differential Treatment

204. Apart from the foregoing elements which are referred to explicitly in the proponents' proposals and in paragraph 25 of the Doha Ministerial Declaration (i.e., transparency, non-discrimination and procedural fairness), some WTO Members have called for the inclusion, as another core principle of a multilateral framework, of the principle of special and differential treatment. This proposal appears to be motivated by two concerns: first, that developing countries face different circumstances from other WTO Members and, therefore, may be less able to bear any resource costs associated with a proposed multilateral framework; and second, that the adoption of core principles should in no way detract from goal of advancing economic development in poorer countries.

205. It is important to note that there does not appear to be a common or widely-accepted view as to how special and differential treatment might modify the application of core principles in a potential multilateral framework on competition policy.[43] Indeed, further discussions in the Working Group could clarify the precise meaning of such treatment in the application of any potential provisions on core principles. For the purposes of the present section the central issue is how special and differential treatment might affect the resource implications of adopting provisions on core principles in a multilateral framework.

206. To the extent that special and differential treatment in this context means that developing countries might not be bound to adopt a specific provision on core principles, a developing country would be able to forgo any fiscal costs associated with implementing a given core principle. However, it would likely forgo any associated benefits also. For example, there may be fiscal savings associated with not implementing a transparent competition enforcement regime, but the five benefits identified in paragraph 191 would not accrue either. This highlights the point that associated with each proposed core principle are benefits as well as costs; consequently, special and differential treatment provisions that enable a WTO Member to refrain from implementing a given core principle would involve it forgoing the associated benefits as well as the costs associated with the relevant principle.

207. It is worth noting that a provision for special and differential treatment in the application of core principles is unlikely to have any resource implications for a developing

[43] A useful overview of the different possible types of special and differential treatment in the field of competition policy can be found in Nottage (2003). It should be noted that Thailand (2002b) has stated that:

> "with respect to the fourth proposed core principle with regard to special and differential treatment, we believe that developing countries should be allowed to: (1) exempt national and international export cartels. This is because most developing countries' exporters or importers are mainly small scale and may need to bind together to counter the bargaining power of larger buyers or sellers from industrialized countries; and (2) gradually introduce greater transparency and due process in the administration and enforcement of competition law" (paragraph 5).

economy whose competition statutes contain no discriminatory clauses and whose statutes are already implemented in a transparent and procedurally fair manner.

B. PROPOSALS REGARDING HARDCORE CARTELS

208. Proponents of provisions on hardcore cartels are calling on WTO Members to consider adopting a ban on hardcore cartels that is backed up domestic legislation, effective enforcement of that legislation, and implementation provisions encouraging the voluntary cooperation between competition enforcement agencies on investigations into cartels.

209. Apart from the resource costs associated with drafting and enacting a cartel law, there are resource implications are associated with the enforcement of a cartel law. In principle, the magnitude of the latter depends on a number of factors including:

– The scope of the cartel law, which depends on:

  (a) The types of practice that are outlawed

  (b) The entities covered by the law

  (c) The sectors of the economy covered by the law

  (d) Whether there is a mechanism created to consider and grant exceptions, exemptions, and exclusions from the cartel law

– The nature of the penalties for violating the law including:

  (a) Fines

  (b) Incarceration of individuals

– Whether the offence is subject to a *per se* rule or a rule of reason analysis

– The types of investigative procedures and means for acquiring information provided in the law, including

  (a) The staffing and powers of officials in the agency responsible for enforcing the competition law

  (b) Whether the competition enforcement agency can employ the investigative resources of other government agencies or investigative bodies, such as the police

  (c) Whether a leniency or amnesty programme has been established

– Whether the cartel law is to be administered by an existing government agency or a new government agency is to be created.

210. With respect to the scope of the law, a number of considerations arise. To the extent that the number of cartel cases that an enforcement agency will eventually have to investigate depends on the number of sectors and entities covered by the cartel law, and on the number and definitions of outlawed practices, then any restriction on the scope of the law will reduce

the implementation costs. Such restrictions, however, also have a direct bearing on the expected benefits of adhering to a multilateral provision on hardcore cartels.

211. In addition, if bid rigging on state contracts is included in the definition of a hardcore cartel, then it is unclear that cartel enforcement will on net raise government expenditures. To the extent that inclusion increases the case load of the enforcement authority, government outlays may be higher. However, if bid rigging is successfully deterred, then the prices paid on state purchases of goods and services will fall; generating savings for the government budget.[44] This example reinforces the point that it misleading to consider the costs of implementing the provisions of a multilateral framework on competition policy independently from the benefits of doing so.

212. A tension can arise between the size of the total enforcement costs and the desire to preserve flexibility in the scope of the cartel law. This flexibility can be implemented through procedures to grant exemptions from the scope of the cartel law. Implementing this procedure, however, can be time consuming and resource intensive; a point that is quite distinct from the economic merits of discouraging firms from engaging in cartelization. In short, flexibility comes at a price—which nations wanting to minimize the cost of implementing a multilateral framework may want to avoid.

213. With regard to the nature of the penalties, these can influence the resource implications of adhering to a multilateral provision on hardcore cartels in different ways. First, the nature of the penalties influences the burden of proof, if any, that a competition enforcement agency must satisfy when prosecuting a cartel. Typically, the burden of proof needed to incarcerate an individual is greater than for imposing a fine.[45] This emphasizes the point that a nation's choices when designing and implementing a cartel law have a considerable bearing on the resource costs subsequently incurred.

214. The second point to be made is that the strength of the sanctions for cartelization determines in part the deterrent value of a national cartel law and, by implication, the likely future case load of the agency tasked with enforcing the cartel law. To the extent that strong sanctions deter firms from cartelizing a nation's markets in the first place, then the resulting case load may well be smaller.

215. Moreover, to the extent that adherence to a multilateral provision on hardcore cartels encourages a WTO Member to strengthen its cartel enforcement regime, and if over time it acquires a reputation for doing so, then more firms will be deterred from cartelizing its markets in the first place. This can result in a falling case load for the competition enforcement agency and reduced outlays on cartel enforcement over the longer term. In sum, it is not at all obvious that implementing provisions on hardcore cartels will raise government outlays on cartel enforcement, especially for those WTO Members that currently have quite tough cartel enforcement regimes.

216. The choice between *per se* rules and a rule of reason approach has resource implications also. Successfully attacking a rule of reason defense of a cartel will require, at a minimum, incurring greater costs to collect the relevant data to undertake an analysis of the cartel's activities on a given market or markets. More importantly, legal and economic

[44] An empirical example of the costs of bid rigging in public procurement processes (and hence the benefit of competition law enforcement in this area) is provided in Part III of this paper. For a discussion of the likely savings from deterring bid rigging on government contracts, see Clarke, Evenett, and Gray (2003).

[45] Incarceration also results in two other costs to society: the cost of imprisonment and the value of the output forgone by jailing a potentially productive member of society.

expertise will be needed to conduct and interpret this analysis. These costs can, in large part, be avoided if a WTO Member makes cartelization a *per se* offence. Again, the design of a cartel law has some bearing on the type of expertise needed to implement the law and on the associated resource costs.

217. The proponents of a provision on hardcore cartels do not specify what investigative tools a WTO Member would have to use in a cartel law. Several options were noted earlier, each with different resource implications. For example, when designing and implementing its cartel law, a government may decide that it will use the existing investigative arms of the state for competition enforcement. If the latter are currently under-utilized, or have some experience in investigating conspiracies (which is what cartels are), then the resource costs of implementing the cartel law will be lower than otherwise. Alternatively, if the state decides to create a new distinct investigative agency for cartel offences, then this may incur more expense. Both options would require some training in the investigative techniques of cartel enforcement as well as in the content of the cartel law.

218. Another important choice faced by WTO Members, should a provision on hardcore cartels be agreed, is whether to implement a leniency or amnesty programme. Whether this is feasible depends in part on the legal traditions of the Member, and even where feasible, these traditions will undoubtedly influence the nature of such a programme. Recent experience suggests that these programs provide strong incentives to cartel members to come forward to the enforcement agencies and to provide the latter with information about the nature, scope, and operation of the cartel. In return, a cartel member can qualify for reduced sanctions for itself and its employees. As will be described in part III, these programs have been successful in encouraging cartel members to come forward in North America and in Europe.

219. The implications for government outlays on competition enforcement of amnesty programs may well differ over time. To the extent that these programs reduce the time taken and the resources needed to gather evidence about, and to investigate, a cartel then government outlays will be lower. Furthermore, to the extent that these programs strengthen the deterrence of a cartel law (because potential cartel members fear that another conspirator may at some future point seek an amnesty), then the future case load of the enforcement agency will fall and so may the associated government outlays.

220. In contrast, to the extent that the implementation of a leniency programme results in an increase in cases against existing cartels, then the case load will increase in the near term. (In this situation, the case load has increased precisely because of the disincentives to cartelize in the past were weaker.) Clearing this case load will provide an opportunity to the enforcement agency to demonstrate its commitment to fight cartels, so discouraging other firms from cartelization in the future. All else equal, then, implementing a leniency programme is likely to result in a transitory increase in government outlays on cartel enforcement and a long-term reduction in those outlays. These considerations further highlight the point that the resource implications of adopting a multilateral provision on hardcore cartels depends in large part on the decisions that a WTO Member makes in implementation.

221. The foregoing discussion could be summarized as follows. Since the proponents of provisions on hardcore cartels in a multilateral framework on competition policy are not advocating one type of cartel law, or the harmonization of existing cartel laws, then WTO Members would *retain* considerable latitude in designing and implementing these laws. For those nations without a cartel law at the moment, the proposed provisions on hardcore cartels would require them to adopt a cartel law. Whether those nations with cartel statutes have to amend their cartel laws would depend in large part on the specifics of the multilateral provision. In either case, these nations would have plenty of different types of cartel law to

choose from—and those choices can differ markedly in their near-term and long-term resource implications.

222. More importantly, the choice between different constituents of a cartel law has implications for *both* the costs and benefits of adopting a multilateral provision on hardcore cartels; and an excessive emphasis on either is misleading. Strengthening the deterrent provided by a national cartel law may require more investigative resources and alike, but once the enforcement agency has acquired a tough enough reputation against cartels that fewer firms are encouraged to form these conspiracies in the first place, then case loads and outlays on cartel enforcement may fall.

223. Turning now to the empirical evidence on the resource costs of implementing cartel laws[46], a difficulty immediately arises in that nations typically report total government outlays on the agencies and do not break out the expenditure of each law administered by each agency. Many competition enforcement agencies implement laws other than cartel laws. This implies that the reported budgetary outlays *exceed* the likely cost of enforcing the cartel law; and so provide an *overestimate* of the costs of implementing a provision on hardcore cartels for a nation that does not currently have a cartel law.

224. Likewise, the reported staffing levels are likely to overestimate the number of trained professionals needed to implement a cartel law. In the case of Brazil, however, data is available on the number of officials devoted solely to anti-cartel enforcement, see Brazil Ministry of Finance (2002). Twelve professionals (out of 71) at the Secretariat for Economic Monitoring (SEAE) were engaged in anti-cartel enforcement. At the Secretariat of Economic Law (SDE) 17 professionals, out of a total of 26, are engaged in anti-cartel enforcement. Given that the SEAE and SDE employ a total of 97 professionals, this implies that fewer than one-third of their professional staff were dedicated to anti-cartel enforcement.

225. Another important factor to bear in mind when interpreting data on the budgets of competition enforcement agencies is that reported expenditures may be small precisely because the relevant competition laws are currently under-enforced.

226. The first set of data comes from a cross-country study undertaken by the Consumer Unity Trust Society (CUTS), India. CUTS undertook "A Comparative Study on Competition Regimes in Select Developing Countries of the Commonwealth, " see CUTS (2003). Seven countries from South Asia and Africa were selected for the project popularly named as '7-Up Project' (India, Pakistan, Sri Lanka, Zambia, Kenya, Tanzania, and South Africa).

227. Out of the seven countries, in three (South Africa, Tanzania and Zambia), competition laws are relatively new. During the study, two countries (India and Sri Lanka) were in the process of adopting a new law while two others were considering adopting a new law or a review of the existing law. In each jurisdiction, all or some types of cartels are prohibited. The state outlays on the agencies responsible for the enforcing competition laws in these seven nations are reported in table II.T2.

228. The Fair Trade Practices Commission in Tanzania implemented competition law in 1994, without a governing committee or supporting infrastructure. It has a small budget, equivalent to 0.01% of the outlays of the federal government. Likewise, in Sri Lanka, the Fair Trade Commission has a budget equal to a only 0.00363% of outlays of the central government.

Table II.T2: The budgets of the competition enforcement agencies in seven developing countries in 2000

Country	Annual budget of agency primarily responsible for enforcing competition law (millions of US dollars)	Annual budget of the central government (millions of US dollars)	Percentage of central government budget that is accounted for by outlays on the primary competition enforcement agency
India	0.723	81307	0.00089
Kenya	0.236	3230	0.00731
Pakistan	0.326	13560	0.00240
South Africa	7.743	23270	0.03327
Sri Lanka	0.098	3395	0.00288
Tanzania	0.162	1010	0.01604
Zambia	0.193	340	0.05619

Source: CUTS (2003) table 7, page 54.

229. The second set of data was assembled from the annual reports sent by some nations' competition enforcement authorities to the OECD (see table II.T3). The reported numbers should be treated with some caution as not every agency that plays a role in competition enforcement in a given nation makes these reports to the OECD. Furthermore, there is no guarantee that the definition of who constitutes an employee of a competition agency is common across reporting bodies.

230. The variation in the size of the enforcement budgets reported in table II.T3 is considerable and reflects, in part, differences in the size of the underlying economies. Another interesting difference is that middle-income countries tend to employ proportionally more economists compared to jurisdictions with higher-income, such as the EC and US.

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[46] Here the focus is on the governmental outlays on cartel enforcement. This is not to imply that private sector resources expended in response to government investigations on cartels are trivial. Rather, that data on the private expenditures is even harder to find that data on government outlays.

Table II.T3: Year 2000 outlays and employees of government bodies responsible for the enforcement of national competition laws, as reported by governments to the OECD

When interpreting these reported statistics it is important to bear in mind that many government agencies that enforce their nations' competition laws also undertake other regulatory functions. There is no guarantee that the numbers reported below relate solely to the resources employed in the enforcement of national competition law.

Reporting entity	Name of Authority	Annual budget (local currency)	Annual budget (US$ Million)	Total number of employees	Economists	Lawyers	Other staff
Brazil	(The numbers presented here are the total for all three Brazilian agencies responsible for enforcing competition laws)		$10.96	398	60	50	288
Czech Republic	Office for the Protection of Competition	61.965m CZK	$1.6	113	36	44	33
Hungary	Competition Authority	562.1m HUF	$1.87	111	39	38	34
Korea	Fair Trade Commission	19,300m KRW	$17.55	444	81	51	312
Mexico	Federal Competition Commission	137.7m MXN	$14.6	200	38	50	112
Poland	Office for Competition and Consumer Protection	17.810m PLN	$4.301	219	89	51	79
Russia	MAP and Regional Offices	130.5m RUB	$4.6	1804	589	408	807
Turkey	Competition Authority	_	$21.2* $6.0**	307	44	23	240
Slovak Republic	Anti-Monopoly Office	28.7m SKK	$0.595	73	25	13	35
European Commission	Directorate General for Competition	6.05m EUR	$5.5	537	67 (and 7 lawyer and economists)	139	324

United States	Department of Justice	110m USD	$110	824	56	351	417
United States	Federal Trade Commission	25.5m USD	$25.5	251	40	159	92

Source for all countries except Brazil: Annual reports of competition authorities to the OECD. See: http://www.oecd.org/EN/document/0,,EN-document-0-nodirectorate-no-11-29574-0,00.html

The US $ estimate of the annual budget for some of the agencies included in the table was calculated independently using the appropriate exchange rate.

Source for Brazil: Brazil Ministry of Finance (2002).

Notes for the above table:
* denotes general expenditure,
** denotes expenditure on personnel

231. Bearing in mind the caveats stated already, tables II.T2 and II.T3 may provide some guide to nations that currently do not have cartel laws as to resource outlays made by other nations at a comparable stage of development. For a nation that already has enacted competition laws and has an enforcement regime, to the extent that their cartel laws already meets the standards set by the proposed provision on hardcore cartels, there will be no additional resource costs. Furthermore, to the extent that an existing cartel enforcement regime needs to be strengthened then, as discussed earlier, the total resource costs will depend on precisely how the relevant law or laws are amended and enforcement practices changed. Measures that strengthen the deterrent of the law without incurring much additional resource costs may well end up reducing both long-term government outlays on cartel enforcement and the harm done to customers by cartels in the first place.

C. PROPOSALS REGARDING MODALITIES FOR VOLUNTARY COOPERATION

232. The proponents of a provision on voluntary cooperation in a multilateral framework on competition policy have argued that it should contain four "tools," which are described in the passage below.

> "The point was made that the tools for voluntary cooperation that, according to this proposal, would be included in a multilateral framework were practical instruments which had come from experience with cooperation at the bilateral level. A first essential tool was notification, whereby one country would inform another of certain cases which affected the other country's important interests. Second, there was the exchange of information other than notifications to facilitate enforcement activities on either side. A third tool involved the provision of mutual assistance in the enforcement process. Finally, the proposed agreement would provide for: (i) traditional or negative comity, meaning that one country would take into consideration the important interests of other affected countries when taking a decision on a case; and (ii) positive comity, which would involve a country taking enforcement action upon a request from another country which suffered from anti-competitive practices originating in the territory of the requested country. All these tools were already found in the bilateral agreements to which some Members were party; regrettably, however, for the most part, developing countries were excluded from the benefit of such agreements" (WTO 2002e, page 24).

233. Figure II.F1 below supports the contention that, at present, there is only a patchwork of bilateral cooperation agreement on competition law and enforcement. One contribution of a provision on voluntary cooperation, therefore, would be fill out the gaps identified in this figure. Further evidence on the prevalence of bilateral cooperation is presented in Appendices II.E-G.

234. The lack of data on the costs of each type of voluntary cooperation precludes a detailed assessment of the resource implications of a multilateral provision on this matter. Nevertheless, some useful observations can be gleaned from official contributions to international organizations and from elsewhere. Together these observations identify some of the factors that are central to assessing the resource implications of a provision on voluntary cooperation.

235. A first observation is that the resource costs of cooperation should not be considered in isolation from the benefits of cooperation. There are two reasons for this. First, the experience of countries that are party to existing cooperation agreements shows clearly that cooperation can provide a major boost to the effectiveness of competition law enforcement at the national level. This is due not only to the usefulness of information shared in facilitating enforcement actions in particular cases but also, very much, to the learning that occurs as a result of interaction with other, potentially more experienced competition agencies.[47] Furthermore, the main purpose of cooperation is to obtain information and advice at a lower cost than would otherwise be the case.

236. A second observation is that, in many instances, the most effective forms of voluntary cooperation between enforcement agencies involves either the exchange of straightforward facts about a case and the affected markets or exchange of views on the so-called "theory of a case." Such cooperation does not have to employ formal mechanisms[48] or involve the sharing of documents to be beneficial, although commitments of one kind or another can be a valuable underpinning of cooperation processes.

237. Brazilian experience bears out this contention. In a contribution to the OECD, Brazil argued:

> "Despite the signature of the international agreement between Brazilian and North American Antitrust Authorities, the most valuable source of international cooperation has been informal" (Brazil 2002, page 31).

238. Brazil goes onto describe how "tips" from US enforcement officials were of considerable value during the former's investigations of the lysine cartel, the vitamins cartel, and the so-called Airlines Companies Case.

239. Brazil nevertheless goes on to underline the importance of formal commitments on cooperation, saying:

> "Informal cooperation is surely desirable as it can be expeditious, direct and can sometimes reveal hidden aspects, clues or hints not always present or possible in formal mechanisms of technical exchange. Nevertheless, this sort of cooperation has

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[47] WTO (2002c). See also Evenett *et al* (2000).

[48] This is not to say that formal mechanisms for antitrust cooperation do not deliver benefits. Waller (2000) describes how the Mutual Legal Assistance Treaty between the US and Canada was, and is, of considerable help in facilitating investigations into international cartels. A more general discussion of the types of inter-agency cooperation on competition policy matters can be found in ICPAC (2000) and Janow (2000). See also the case studies in Evenett *et al*. (2000).

> the disadvantage of being excessively based on personal contacts. In this sense, informal contacts can be a close substitute of formal ones in the short term, but not in the long term. Persons come and go, institutions remain" (Brazil 2002, page 33).

240. These arguments concerning the benefits of Brazil's bilateral cooperation agreement on competition matters with the United States would seem to apply with equal force to the multilateral setting. Brazil's experience would seem to suggest that there are benefits to a potential provision on voluntary cooperation that draws more nations into cooperation on competition policy matters and facilitates a move away from *ad hoc* cooperative arrangements.

241. A third observation is that competition agencies are most likely to see voluntary cooperation from those foreign competition agencies that have *both* strong track records in enforcement and the relevant expertise. This suggests that, in the short to medium term, the number of requests for voluntary cooperation from jurisdictions that currently have no or nascent competition enforcement regimes is likely to be minimal; which, in turn, suggests that the notification-related resource implications for the latter will be minor. Moreover, the resource implications of voluntary cooperation are likely to grow over the longer term after a jurisdiction has made systematic efforts and investments to strengthen its competition enforcement regime. And, as noted above, those longer term resource implications are likely to be on both the costs and the benefits side.

242. A fourth observation is that the resource costs of provisions on cooperation are more likely to be manageable and subject to the discretion of the participating countries to the extent that cooperation is indeed "voluntary". It should be noted that the idea of voluntary cooperation does not mean that WTO Members would be under no obligation to take requests for cooperation seriously; it simply means that they could not be forced to cooperate in circumstances where they are unable or unwilling to do so, in view of the resource constraints that they face and other pertinent considerations. As has been pointed out in a written submission by one proponent of a multilateral framework on competition policy, this approach enables countries to take into account relevant resource constraints and is broadly consistent with that which has been implemented in most existing bilateral cooperation agreements:

> "In other words, the assistance would have to be compatible with applicable laws and regulations, enforcement priorities, important interests and available resources of the country presented with a request for such assistance. Some have argued that cooperation is unlikely to be effective if it is "merely" voluntary and does not provide for the exchange of confidential information. The European Communities experience, however, is that such limitations have not prevented a very close and steadily-evolving cooperative relationship with the competition authorities we deal with on a regular basis. Similar experiences have also been made by competition authorities of most European Communities member states which have considerable experience in case-related cooperation. Even the bilateral cooperation agreements which the European Communities has entered into with other developed economies (Canada and the United States) – although providing for intensive co-operation – are essentially voluntary in nature and do not contain provisions which allow one party to compel the other party to act in a particular manner. In other words, no party to these agreements can legally oblige the other party to cooperate and a part may have legitimate reasons not to cooperate on a specific matter" (EC 2002c, page 9).

243. The effects of such a provision on voluntary cooperation for the workload of a competition enforcement agency—with its attendant resource costs—are ambiguous. Here a number of different effects need to be taken into account. To be sure, personnel time would have to be devoted to sending notifications to and processing notifications from foreign

enforcement agencies. In addition, requests for cooperation on case-specific and non-case specific matters will require resources, even if no action is taken. Moreover, recipients of cooperation may well incur implicit obligations to assist a competition enforcement body that is helping it at present or has helped it in the past.

244. However, other factors are at work, too. To the extent that voluntary cooperation enables enforcement actions against hitherto un-investigated cases involving sizeable anti-competitive conduct, then the workload of the agency will increase. But, in this case, so will the benefits of national enforcement of competition law.

245. To the extent that the knowledge that enforcement agencies cooperate on a voluntary basis strengthens the deterrent value of national competition laws, then more firms will be discouraged from engaging in anti-competitive acts in the first place. This, in turn, could tend to reduce the case load of enforcement agencies; and, equally or more important, the total harm suffered by consumers or user industries as a result of anti-competitive practices. In sum, therefore, this first type of provision for voluntary cooperation can result in the workload of an agency enforcing competition law falling as well as rising, and the change in the workload is an unreliable indicator of the effect of voluntary cooperation on the effectiveness of the national competition law.

246. As an alternative to purely voluntary approach to cooperation, one delegation has expressed the view that:

> "…multilateral cooperation must guarantee developing countries better protection against international cartels," (Thailand 2002a, paragraph 3 emphasis in original)

It should be noted that the approach to cooperation which is advocated by Thailand has important elements in common with that of other Members favouring a multilateral framework on competition policy:

> "Thailand believes that the bilateral co-operative arrangements that are currently in place are helpful in enhancing capacity, but are not sufficient to protect developing countries from international cartels because countries with more advanced competition regimes would see no benefit from cooperating with countries whose enforcement of competition law is considered inadequate. Thus, a *multilateral cooperation* would be a favourable alternative for developing economies." (Thailand 2002a, paragraph 4)

247. Nonetheless, the approach favoured by Thailand differs from that of other proponents in at least two respects: (i) it appears to call for an exclusive focus on cooperation relating to international hardcore cartels, as opposed to other anti-competitive practices; and (ii) it would be mandatory at least in some respects. More specifically:

> We believe that the *initial commitment* in multilateral cooperation in fighting *hard-core cartels* should consist of the following elements:
>
> - Notification, which requires authorities that are in the process of investigating and prosecuting international hard-core cartel cases to promptly alert concerned authorities in countries that the cartels may be operating. The notification should include, at a minimum, the background and the preliminary analysis of the particular case. Authorities should be kept up-to-date on a regular basis with regard to the progress.

- Mandatory consultation, which requires governments that are investigating an alleged cartel to engage in discussions with other Member countries whose interests may be affected.

- Assistance, which requires competition authorities to co-operate in terms of providing analytical assistance, sharing of experience, suggestions concerning enforcement techniques, etc. Requests for information gathering should also be facilitated" (Thailand 2002a, paragraph 5).

248. The Thai approach also calls for financial compensation of developing countries for assistance rendered:

> Due to the overwhelming discrepancy in financial and technical resources between competition authorities in developed countries and those in their developing country counterparts, *special and differential treatment* for developing Members would be necessary in the case of mandatory enforcement assistance. We propose that competition authorities in developing countries be financially compensated for delivering requested services and be allowed to cooperate to the extent possible subject to technical and financial constraints" (Thailand 2002a, paragraph 6).

249. With respect to the resource costs of such an approach to cooperation, it is useful to distinguish between the implications for the developing country Members of the WTO and the other Members of the WTO. As far as the latter are concerned, the mandatory requirements for notification, consultation and assistance, will in an of themselves all enhance resource costs. Having said that, to the extent that the additional cross-border cooperation that this entails results in information that is useful for these Members, then there may well be some offsetting benefits. Moreover, the requirement to compensate developing country Members that assist a richer partner will further add to the resource costs.

250. With respect to the resource costs of this proposed provision for developing countries, on the face of it they will benefit from any payments from other WTO Members for any cooperation granted. Whether such cooperation will be sought is another matter and will depend in part on the enforcement capacity of the developing country which, in turn, suggests that requests for cooperation—and the envisaged payments—will *follow rather than precede* investments in national enforcement capacity.

251. Moreover, under this proposal developing countries could expect to receive more notifications about cross-border anti-competitive practices that might be affecting their markets. The benefits that flow from such notifications will depend in part on the strength of the enforcement authority in country receiving these notifications. If the latter is weak, then notifications from abroad are less likely to translate into prosecutions of and enhanced deterrents to anti-competitive acts. Again, the benefits of this particular provision appear likely to accrue to those nations that have already invested sufficiently in national enforcement capacity.

252. Another apparent implication of either of the above approaches to cooperation is that a developing country would not be able to insist on cooperation from another developing country. This could be important as cross-border anti-competitive practice need not be orchestrated in industrialized economies. Moreover, to the extent that this proposal was effective, it would provide a clear incentive to firms—including multinational corporations—to orchestrate these practices in those developing countries that were appear unable or unwilling to provide cooperation to other developing countries. The principal effect may, therefore, may to alter the location from where these practices are orchestrated.

253. In sum, in the near term a provision on voluntary cooperation is likely to have the greatest resource implications for those jurisdictions with the relatively stronger track records of enforcement. After other jurisdictions' competition enforcement regimes strengthen—an outcome which is likely to be reinforced by the effective implementation of the other elements of a multilateral framework on competition policy—then the resource implications of cooperation are likely to grow in that a modest number of staff members may be need to be allocated to cooperation-related functions. However, the concept of voluntariness, assuming it is an element of any eventual cooperation modalities, would mean that Members could not be forced to cooperate where resource constraints did not permit them to do so. In any case, the resource costs of cooperation should not be considered in isolation from its benefits. The latter include not only the effective investigation and implementation of remedies to deal with anti-competitive practices, but also the resource savings that result when valuable information is obtained at a lower cost than would otherwise be the case. Indeed, in a real sense the purpose of cooperation is to enable countries to obtain necessary information and thereby to take appropriate enforcement actions at a lower cost than they would be in a position to do acting individually.

Figure II.F1: Bilateral and trilateral cooperation agreements on competition law enforcement

-	USA	EC	Ger.	Aus.	Fra.	NZ	Can.	Chi.	Rus.	Chi.T	Isra.	Jap.	Kaz.	Bra.	PNG	Mx.	Ice.	Nor.	Den.	Chil.
USA	-	1991 and 1998	1976	1982 and 1997			1995				1999	1999 and 1999		1999		2000				
EC	1991 and 1998	-					1999 and 2000													
Germany	1976		-		1984															
Australia	1982 and 1997			-		1994 and 2000 **	2000 **			1996					1999					
France			1984		-															
New Zealand				1994 and 2000 **		-	2000 **			1997										
Canada	1995	1999 and 2000		2000 **		2000 **	-									2001				2001
China								-	1996				1999							
Russia								1996	-											
[Chinese Taipei]				1996		1997				-										
Israel	1999										-									
Japan	1999 and 1999											-								
Kazakhstan								1999					-							
Brazil	1999													-						
Papua New Guinea				1999											-					
Mexico	2000						2001									-				
Iceland																	-	2001 **	2001 **	
Norway																	2001 **	-	2001 **	
Denmark																	2001 **	2001 **	-	
Chile							2001													-

Shaded boxes/entries implies no cooperation agreement. White entries indicate a cooperation agreement exists. Date that the agreement was signed is also indicated.

Key: ** Tripartite agreement. Source: UNCTAD (2002b).

D. CONCLUDING REMARKS

254. The discussion in this part of the study has questioned the wisdom of considering the additional resource costs of a multilateral framework of competition policy independently of the benefits. The provisions of the proposed framework invariably have implications for both the costs of enforcing competition law and the benefits that flow from such enforcement. One of the major beneficiaries of stronger competition enforcement is in fact the government, which is often the target of bid rigging and other anti-competitive acts that result in higher prices being by state purchasers. Moreover, once a full and balanced calculation of the costs and benefits is undertaken, it is not at all clear that the implementation of a multilateral framework on competition policy must impose a drain on national finances. Of course, the benefits of stronger enforcement regimes are felt beyond the government, but the last observation was motivated by the prominent concern that implementation of a multilateral framework on competition is simply too costly for some jurisdictions.

255. Along with the potential benefits of strengthened deterrence of anti-competitive acts, there is another important resource-related implication of a multilateral framework on competition policy. WTO Ministers have reaffirmed the importance of, and the need for, greater capacity building and technical assistance for agencies enforcing competition laws in developing economies. To the extent that a multilateral framework on competition policy contains commitments to expand such efforts, then this could further increase the benefits of adopting this framework to jurisdictions with no or nascent competition enforcement regimes.[49] Moreover, such commitments could enable the newcomers to the enforcement of competition law to tap the expertise of colleagues in jurisdictions with active competition enforcement regimes.

III. THE IMPACT OF TACKLING ANTI-COMPETITIVE PRACTICES IN A DEVELOPING ECONOMY SETTING

256. The previous section gave some indication of the potential resource costs and benefits associated with implementing a multilateral framework on competition policy. Conversely, this section focuses on one of the potential benefits of such a framework; namely, the likely reduction in the prevalence and harm done by anti-competitive practices to developing economies. The analysis in this section is based entirely on official contributions to international bodies, the published reports of agencies responsible for enforcing national competition laws, certain data bases, and academic research; all of which are in the public domain.

257. This section begins with some introductory remarks about the sources of anti-competitive practices in developing countries and the effectiveness of some state measures to attack them (section A). Then, the recent record of competition law enforcement by more than 15 developing economies is described (section B). This highlights two important points. First, that the enforcement of competition law is not the sole preserve of industrialized economies. Moreover, enforcement agencies have been actively addressing anti-competitive corporate practices in countries with a diverse range of economic circumstances, openness to trade and investment, and prior development strategies. Secondly, the fact that many developing economies are voluntarily enforcing these laws probably indicates that they see value in doing so.

[49] As some developing countries have already acquired considerable experience in enforcing competition laws, there is no presumption that the only suppliers of technical assistance are industrial economies.

258. The third section (C) describes and assesses the small number of research papers on the effects of enforcing competition law and other elements of competition policy on broader measures of economic performance. Such analyses have been made possible by the recent collection of large cross-country datasets of the strength of competition policy enforcement and these data sources are discussed also.

259. Turning to external sources of anti-competitive market outcomes in developing economies, sections D and E describes the factors that account for the surge in international cartel enforcement after 1993 and provides available estimates of the harm done by some of these cartels to developing economies. The latter section also includes some evidence of the deterrent effect of enforcing cartel laws. In the case of one prominent international cartel, which lasted ten years and was global in operation, the evidence suggests that nations with active enforcement regimes suffered lower overcharges. This implies that, in addition to deterring the formation of cartels in the first place, more active cartel enforcement regimes reduce the harm to customers generated by those cartels that do form. Some summary observations are presented in section F.

A. INTRODUCTORY REMARKS

260. Whatever their motivation—increasing profits, more perks for managers and executives, or the desire for a "quiet life"—firms have often resorted to anti-competitive practices. These practices can take many forms including, to name a few; initiatives to raise prices by a single firm or in concert with others; to merge with rivals so as to reduce sharply competitive pressures; to rig bids; and to sign certain types of exclusive agreements with suppliers, distributors, and buyers; and to agree with rivals to slow the pace of innovation. Although the effects of these practices may differ across markets and over time, they invariably make purchasers worse off.[50] For this reason, and others, policymakers in developing economies have begun to tackle more aggressively such anti-competitive practices. This section will provide an overview of the effects of such practices and the consequences of measures taken to address them.

261. As the discussion in section I made clear, competitive markets can have static and dynamic (intertemporal) consequences. The primary static effect of competitive pressure is to reduce the ability of firms to raise prices above incremental (or, to use the language of economists, above "marginal") costs. The dynamic consequences can include the effect of competitive pressures on the incentive to innovate, to imitate, and to invest. Given that one of the key objectives of competition policy is to stimulate or to preserve the intensity of competition in markets, then it is not surprising that studies of the effects of competition policy enforcement in developing and industrial economies have emphasized both its static and dynamic consequences.

262. It is important to acknowledge at the beginning of this section that competition policy is not the only government measure that can undermine or attack anti-competitive practices. Lower state-imposed barriers to entering markets will facilitate the movement of domestic firms into markets where incumbents are exercising market power.[51] Removing restrictions on foreign direct investments and on imports can also go a long way to attenuate the market

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[50] It is worth noting in this regard that these purchasers can include those in poverty, the government, and firms which buy items from the cartel members.

[51] For the latest academic research on quantifying the barriers to entry in many countries see Djankov *et al*. (2002). This study presents a number of different measures of the time-related and financial barriers that entrepreneurs must overcome to set up a new firm in industrial and in developing economies.

power of domestic firms; as much published empirical research in the 1990s has confirmed.[52] In fact, some have gone as far as to claim that trade and investment liberalization are a perfect substitute for national competition policy (see, for example, Blackhurst (1991)). The evidence, however, casts serious doubt on such a sweeping generalization—as the following discussion of the data reported in table III.T1 highlights.

263. Singapore and Hong Kong, China are said to have almost open borders; certainly more open than many other trading economies. Yet, evidence published by the International Monetary Fund (IMF) indicates that Singaporean manufacturing firms have been able to consistently raise prices above costs by twice the percentage of firms in OECD nations (see table III.T1).[53] Admittedly, many factors can account for higher price-cost mark-ups. However, what is striking about the IMF's findings for Singapore is how persistently large the mark-ups were during the 1980s and 1990s. In its assessment of this evidence, the IMF noted that such mark-ups were:

> "suggestive of the relative lack of domestic competition in Singapore" (IMF 2000a, page 12).

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[52] The idea that open borders can tame domestic market power is not a new one. In fact, Bhagwati (1968) forcefully made this argument over thirty years ago. However, it was not until the 1990s that careful micro-econometric studies were published that substantiated what had been up until then a purely theoretical point. The principal empirical contributions in this regard are Levinsohn (1993) and Harrison (1994), both using data from developing economies. See chapter one of Evenett *et al.* (2000) for a concise review of the empirical literature of the effects of international trade flows and foreign direct investment on the ability of domestic firms to raise prices above incremental costs.

[53] Unfortunately, the relevant IMF paper does not state the methodology employed for calculating these Singaporean price-cost margins.

Table III.T1: Comparison of price-cost margins in Singapore; Hong Kong, China; the United States; and the OECD economies

Industrial code	Industry	Singapore			Hong Kong, China	OECD economies	United States
		1980-1989	1990-1998	1980-1998	1986-1997	1986-1997	1986-1997
	MANUFACTURING						
15 and 16	Food, Beverages and Tobacco	21.0	27.4	24.0	20.6	11.7	13.4
15	Food and Beverages	20.0	25.6	22.1			
16	Tobacco Products	33.8	38.7	35.6			
17	Textiles	28.5	26.7	27.6	9.5	9.7	8.8
18	Wearing Apparel	23.6	26.5	25.0			
19	Leather Products and Footwear	19.8	18.4	19.2			
20	Wood and Wood Products	20.9	22.7	21.7	10.4	11.9	13.6
21	Paper Products	31.1	34.1	32.5			
22	Publishing and Printing	43.3	47.5	45.3	15.6	12.3	13.9
23	Refined Petroleum Products	13.2	16.8	14.9			
24	Chemicals and Chemical Products	40.0	40.8	40.4	14.0	15.9	10.8
25	Rubber and Plastic Products	28.7	30.4	29.5			
26	Non-metallic Mineral Products	30.5	31.7	31.0	13.6	8.4	9.5
27	Basic Metals	34.4	28.4	31.6	6.8	8.8	6.7
28	Fabricated Metal Products	28.5	30.0	29.2	12.3	15.1	12.5
29	Machinery and Equipment	33.7	30.8	32.3	15.0	10.1	10.0
30	Electrical Machinery and Apparatus	27.6	26.4	27.0	19.3	11.0	17.4
31	Electronic Products and Components	23.3	24.1	23.7			
32	Instrumentation and Scientific Equipment	35.7	35.8	35.8	10.3	14.5	6.3
33	Transport Equipment	51.7	50.2	51.0	16.3	6.4	5.1
34	Furniture and Other Manufacturing Industries	23.2	20.7	22.0	9.1	10.0	21.6
35	Recycling of Waste and Scrap	38.5	25.3	32.3			
	Total Manufacturing	24.9	27.6	26.2	12.6	11.5	11.8
	Total Manufacturing Excluding Refined Petroleum Products	29.5	29.2	29.3			

Industrial code	**Industry**	**Singapore**			**Hong Kong, China**	**OECD economies**	**United States**
		1980-1989	**1990-1998**	**1980-1998**	**1986-1997**	**1986-1997**	**1986-1997**
5-8	**SERVICES**				8.3		14.6
5	Construction				6.1		16.3
61-63	Wholesale and Retail Trade				5.2		
64.-65	Restaurants and Hotels				12.9		
71	Transportation				14.1		14.0
83	Real Estate				14.3		

Sources: IMF (2000a,b)

Notes:

1. These reported numbers are the price-average cost margins. Gross output is used to calculate these margins. As Table I.1 of IMF (2000b) makes clear, using gross output to calculate these margins produces smaller margins than using value-added.
2. The margins reported here for Food and Beverages and for Tobacco Products in Singapore are calculated using data from 1990-1996 only.

264. The comparable IMF estimates of the price-cost margins for Hong Kong, China are more mixed.[54] There are several internationally tradeable sectors reported in table III.T1 - such as Food, Beverages, and Tobacco, Non-metallic Mineral Products, Machinery and Equipment, Electrical Machinery and Apparatus, and Transport Equipment—where price-cost margins are well above the average for those sectors in OECD nations. Perhaps more interesting than the level of these price-cost margins is how these margins have changed over time especially in the industries that presumably face the disciplining effects of import competition. Further analysis by the IMF lead to the conclusion that:

> "[Hong Kong, China] has become slightly less competitive in the last decade…Within industries, gross output [price-average cost] margins have increased slightly in the last 10 years, as have value-added [price-average cost] margins in manufacturing…" (IMF 2000b, page 31).

Presumably, whatever disciplining effect open borders had on price-cost margins in this economy was offset by some other factor, possibly entry-impeding private anti-competitive practices. To the extent that the latter were responsible, it does suggest open borders may need to be complemented with the enforcement of certain competition laws.

265. At a minimum the data reported by the IMF on these two economies reinforces a more *general* point; namely, that relatively more open borders and greater exposure to competition from overseas markets—useful as these policies are in facilitating trade and investment—cannot guarantee to lower price-cost margins below the averages seen in industrialized economies.[55] On the basis of this and other published evidence[56] perhaps the appropriate conclusion to draw is that open borders, while undoubtedly attenuating market power, do not eliminate it.

B. EVIDENCE FROM THE RECORDS OF COMPETITION ENFORCEMENT IN DEVELOPING ECONOMIES

266. As the number of developing economies adopting competition laws rises over time, more evidence of anti-competitive practices is emerging from the enforcement records of competition authorities. Many such authorities have their own websites, where annual reports and press releases are posted. In addition, numerous developing economies have reported on significant enforcement actions in submissions or notifications to the OECD, to UNCTAD, and to the WTO. The evidence reported in this subsection was assembled from such sources.

267. Table III.T2 summarizes the information presented to the OECD by 12 developing economies on 27 recent enforcement actions against cartels, an important class of anti-competitive corporate practice. These twelve economies differ markedly in their stages of development and yet they were all affected by the detrimental effects of cartels.[57]

268. Furthermore, the number of big rigging cases reported (six) in Table III.T2 suggests that the private sector is not the only victim of cartelization—governments (and, by extension, taxpayers) are too. In fact, the three cartel cases described by the Chinese authorities were all bid rigging examples. Moreover, bid rigging in donor aid projects has been uncovered in

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[54] Unlike the study of Singapore, the IMF's report (IMF 2000b) describes in detail the different econometric techniques used to estimate the price-cost margins.

[55] Similar points were made in paragraph 88 above, especially with reference to a contribution of Argentina to the Working Group in 1998 (W/63).

[56] For a review of that evidence see chapter 1 of Evenett *et al.* (2000).

[57] Moreover, Table III.T5 (below) includes reports that in 2001 alone the Czech, Estonian, Hungarian, Latvian, Polish, Slovak, and Slovenian competition authorities took actions against 86 "restrictive agreements," which includes cartels.

recent years as a case involving firms bidding for USAID projects in Egypt can attest (see Box III.B1 below).

Box III.B1: Bid rigging on USAID-funded construction projects in Egypt, 1989-1995

American International Contractors Inc. (AICI) pled guilty and was sentenced to a $4.2 million fine for participating in a conspiracy to rig bids for construction contracts funded by the United States Agency for International Development (USAID) in the Arab Republic of Egypt. In a one-count felony case filed on 11 August, 2000, in the US District Court of Birmingham, Alabama, AICI was charged with participating in a conspiracy involving bid rigging on certain wastewater treatment facilities construction contracts from June 1988 until at least January 1995, in violation of Section 1 of the Sherman Act. In addition, Philipp Holzmann AG, a Frankfurt, Germany, based construction company, pled guilty and was sentenced to pay a $30 million fine for its participation in the cartel.

The conspiracy involved a number of USAID and United States Core of Engineers contracts to build water treatment and disposal facilities in Egypt. This conspiracy started in 1989 and continued until at least 1995 and involved deliberately submitting "losing" bids to the procuring authority. The "losing" firms were compensated with direct payments by the winning company. In so doing, the market for such construction projects became far less competitive with the procuring entity unable to obtain the lowest possible price. In turn, fewer projects were probably undertaken in Egypt, with a direct effect on the quality of life of citizens of this developing economy.

Source: USDOJ Press Release "German Company Pleads Guilty to Rigging Bids on USAID Construction Contracts in Egypt," 18 August 2000, downloaded at http://www.usdoj.gov/opa/pr/2000/August/485at.htm

Table III.T2: Cartel enforcement cases in selected developing economies

Economy engaging in enforcement action	Cartelized market	Duration of cartel	Summary of conspiracy and any fines imposed
Bulgaria	Transportation on variable routes (intermediate transportation)	2000	The conspirators agreed on a price increase of approximately EUR 0.1 on transportation services. The companies were fined a total of EUR 47,000.
	Phone cards sales	One year (year not specified)	A common shareholder acted at an intermediary in price co-coordination scheme by two conspiring companies. Both were fined of EUR 9,000.
	Gasification	2002	Two companies agreed on a five-years contract with no-compete clauses. A fine of EUR 25,500 was imposed on both companies.
China	Brickyard	1999	Bid rigging conspiracy involving five groups of companies affecting the operation of a brickyard plant in Zhejiang Province. They were fined EUR 6,500 each.

	School building	1998	Bid rigging involving ten construction companies. The bid was declared invalid and illegal gains confiscated.
	Engineering construction	1998	Bid rigging involving two construction companies.
Estonia	Milk products	2000	Price-fixing attempt by four leading milk processors and ten wholesalers. A prohibiting order was issued before an agreement came in place.
	Taxi services	1999	Three taxi companies (over 40% of the taxi market) convicted of price fixing, and fined EUR 639 each.
	Road transport	1999	The Association of Estonian International Road Carriers was prosecuted for participating in price fixing involving the provision of international transport services. The Competition Board issued a prescriptive order. No sanctions were applied.
Indonesia	Pipe and pipe processing services	Formed in May 2000	Bid rigging involving four companies. The ensuing contract was dissolved. No fines were imposed.
Latvia	Aviation	1998-1999	International cartel involving one Latvian and one Russian company agreeing to co-operate in the organization of passenger flights between Riga and Moscow. The Latvian company was fined 0.7% of its total turnover of 1998.
	Courier post	1999	Agreement between a Latvian state-owned courier post service and an international courier service operator. No sanctions were applied, as no practical effect on competition was ascertained.
Peru	Building and construction	1997	Three companied involved in bid rigging. Fines of nearly EUR 1,800 were imposed on each of the respondents.
	Taxi Tours	1999	Price fixing agreement between a number of local companies. Only one company, which did not express their commitment to cease the restrictive practices, was fined EUR 900.
	Poultry market	1995-1996	Several associations and 19 firms investigated and subsequently prosecuted for price-fixing, volume control, restrain of trade, for a conspiracy to establish entry barriers and for the development of anti-competitive mechanisms to suppress and eliminate competitors, in the market of live chicken in Metropolitan Lima and Callao.
Romania	Mineral water	1997	Price fixing conspiracy relating to the bottling of mineral water. Fines not specified.
	Drugs	1997-2000	Members of the Pharmacists Association were found to be participating in a conspiracy relating to market sharing in pharmaceutical distribution (approx. EUR 430 million per year) and to be deterring entry by other competitors. Fines were calculated as a percentage of profit of the Pharmacists Association (amount not specified).

Slovenia	Electric energy	2000 (year of enforcement decision)	Price fixing conspiracy relating to the provision of electric energy in Slovenia. The cartel was prohibited.
	Organization of cultural events	2000	Two companies agreed to co-operate and prevent entry in the market. The amount of fines imposed is not specified.
South Africa	Citrus fruits	1999	Conspiracy relating to the purchase, packaging, and sale of citrus fruits. Fines not specified.
Chinese Taipei	Wheat	1997-1998	The Flour Association was convicted of organizing a buyers' cartel, instituting quantity controls, and quota system among 32 flour producers. The association was imposed a fine of EUR 620,000.
	Mobile cranes	1998	Six companies convicted of bid rigging. No fines specified.
	Liquefied Petroleum Gas (LPG)	Not specified	Twenty seven companies, controlling most of the market share, convicted of participating in a price fixing conspiracy relating to delivery of LPG in southern Chinese Taipei. Total fines amounted to EUR 4,123,000.
Ukraine	Electronic cash machines	1999	Price fixing conspiracy involving two companies. As a result of the agreement prices rose by EUR 1.0–2.0. The sanctions applied, if any, were not specified.
	Kaolin	2000	Two competing distributors concluded a contract specifying amounts of sales of the product. The sanctions applied, if any, were not specified.
Zambia	Poultry	Not specified	Two companies, the dominant producer and the largest buyer in the poultry market, made agreements foreclosing competition. The agreement was declared invalid.
	Oil	1997 – not specified	Nine oil-marketing companies convicted of price fixing. The cartel leaders also forced other companies to comply with standard behavior on prices. The sanctions applied, if any, were not specified.
Source: Assembled from national submissions to the First and Second OECD Global Forums on Competition.			

269. Cartelization is, of course, not the only form of anti-competitive conduct. Firms with sizeable market shares may individually or collectively raise prices and take other measures to distort market outcomes. Such corporate acts are said to be abuses of a dominant position and are regularly the target of developing economy competition policy enforcement (see tables III.T3 and III.T4). In their last annual reports to the OECD on competition enforcement, Hungary, Korea, Mexico, Russia, and Turkey took steps against abuses of dominant positions (see table III.T3). Some transition economies—such as the Czech and Slovak Republics—have been taking action against abuses of dominant positions for many years (see table III.T4). Since 1992, the Czech authorities have undertaken 142 investigations into potential abuses of a dominant position, a finding that may reflect the fact that many large formerly state-owned enterprises retain the capacity to wield significant amounts of market power.

Table III.T3: Findings of anti-competitive conduct in selected developing economies

Economy	Year	Findings of horizontal agreements, cartels, and concerted agreements	Findings of abuse of a dominant position
Hungary	1997	0	8
	1998	2	5
	1999	7	7
	2000	11	19
Korea	2000	38	0
Mexico	1999	10	
	2000	34	
Russia	2000	9	438
Turkey	2000	12	-

Sources: Named countries' annual reports to the OECD on competition policy enforcement. Obtained from http://www.oecd.org/EN/document/0,,EN-document-768-nodirectorate-no-11-29574-768,00.html

Table III.T4: Investigations of anti-competitive conduct by agencies in the Czech and Slovak Republics

Economy	Year	Investigations of horizontal agreements, cartels, and concerted agreements	Investigations of abuse of a dominant position
Czech Republic	1992	15	20
	1993	9	20
	1994	15	16
	1995	28	29
	1996	30	24
	1997	27	5
	1998	67	4
	1999	54	13
	2000	36	11
Slovak Republic	1996	8	26
	1997	18	27
	1998	217	58
	1999	131	41
	2000	29	35

Sources: Named countries' annual reports to the OECD on competition policy enforcement. Obtained from http://www.oecd.org/EN/document/0,,EN-document-768-nodirectorate-no-11-29574-768,00.html

270. This quantitative evidence on recent enforcement actions against private anti-competitive practices in developing countries can be supplemented by a growing body of more qualitative accounts of enforcement actions. Appendix III.B contains a description of a number of important recent enforcement actions by Brazil, the Czech Republic, Hungary, Poland, Russia, and the Slovak Republic. Other useful sources in this regard are CUTS (2003), Hur (2002), Kovacic (2001), Mavriodis and Neven (2000), OECD (2003), and UNCTAD (2002c). The latter describes enforcement actions in Brazil, South Africa, Venezuela, and Zimbabwe.

271. The factual record on competition policy enforcement in Eastern Europe is particularly well developed. This reflects the fact that many of these economies have been preparing to accede to the European Union and that the European Commission has in recent years published annual reports on (amongst other matters) the status of each applicant's competition policy enforcement regime. The latest reports published in 2002 refer to the enforcement record in 2001 and the key findings are summarized in table III.T5. Perusing these reports reveals that many of these Eastern European nations have active competition authorities and that they are increasingly targeting anti-competitive practices (see, for example, the comments made about the Polish and Czech enforcement regimes in table III.T5). It would appear that the fact that these economies' competition enforcement agencies have been established only recently has not prevented some of them from taking an increasingly aggressive stance against private anti-competitive practices; suggesting that nations need not wait long before investments in competition enforcement begin to bear fruit. This is not to say that all of these economies' competition authorities are up to full strength as the European Commission's commentary on the resources and personnel available to the Latvian and Slovenian competition authorities makes plain (table III.T5).

272. This evidence, of course, relates only to those anti-competitive practices that national competition authorities have investigated or prosecuted. Few sub-national authorities report comparable data on enforcement activities; suggesting that the evidence in tables III.T2-5 understates the extent of enforcement activity in these economies.

273. In sum, this evidence is difficult to reconcile with the view that private anti-competitive practices are not a feature of the commercial landscape in developing economies. Moreover, this evidence suggests that throughout the 1990s a growing number of developing countries found it in their own interests to start, or to increase, or to reinvigorate the enforcement of their competition laws.

Table III.T5: European Commission reports on the activities of competition authorities in selected accession countries

EU Accession country	Selected comments on competition policy enforcement in 2001
Czech Republic	"The Office for the Protection of Competition, which is the national competition authority in the Czech Republic, has continued to build on its enforcement record over the past year. In 2001, 132 anti-trust decisions were adopted (22 on restrictive agreements, 5 on abuse of dominance, and 105 on merger cases), 12 of which were prohibitions and conditional approvals (4 with fines). In 2001, there were three court appeals against the competition office decisions and all were rejected" (page 65). "In an effort to concentrate its resources on the most serious anti-competitive behaviour, the Office has revised its Leniency Programme of July 2001 in line with the Commission's new programme of February 2002, in order to further encourage whistle-blowing by participants in cartels" (page 65). "As regards administrative capacity, the Office for the Protection of Competition is a fully independent authority and has sufficient resources and expertise in place. It has broad powers to enforce the competition rules. Currently, the Office employs 129 officials in total" (page 66).
Estonia	"The Competition Board has continued to build on its enforcement record over the past year. In 2001, it took 33 anti-trust decisions (compared to 31 in 2000), of which 4 were prohibitions (1 with fines). The decisions included 9 cases of abuse of dominant position, 8 cases of restrictive agreements, 8 merger cases (merger control was introduced in October) and 7 sectoral investigations. Staff remained at around 40 and training activities continued" (page 58).
Hungary	"The Office of Economic Competition, together with its decision-making Competition Council, has continued to build on its enforcement record over the past year. In 2001, it took 120 anti-trust decisions (compared to 144 in 2000), two prohibitions (two with fines). The decisions included 30 cases of abuse of dominant position, 10 cases of restrictive agreements and 80 merger cases. Staff increases by 14 to 124, and training efforts continue" (page 63).
Latvia	"The Competition Council, together with its investigative Competition Bureau, has continued to build on its enforcement record over the past year. In 2001, it took 30 anti-trust decisions (compared to 20 in 2000), including 6 prohibitions (1 with fines). The decisions included 15 cases of abuse of dominant position, 11 cases of restrictive agreements and 4 merger cases. The Competition Council (in its decision-making capacity) has operated, for a large part of the year, with only 3 of the required 5 members. The level of overall staffing remained at around 40, but with a continued high turnover rate of 30%. The budget for the Competition Council was increased by 3.8%" (page 63).
Poland	"The Office for Competition and Consumer Protection (OCCP), which is the national competition authority in Poland, has continued to build on its enforcement record over the past year. In 2001, a total of 654 decisions were adopted, of which 20 concerned restrictive agreements, 218 abuse of a dominant position and 416 were adopted under the modified merger control regime" (page 63). "The Office for the [sic] Competition and Consumer Protection is an independent authority and has satisfactory resources in place. Currently, the Office employs 220 officials. Of those staff who work in the field of competition policy, 20 officials work in the state aid departments and 65 in the corresponding anti-trust departments" (page 64).

EU Accession country	Selected comments on competition policy enforcement in 2001
Slovak Republic	"In terms of administrative capacity, in 2002 an increase in the number of staff of the Anti-Monopoly Office to 75 (from 65) was approved by the Slovak Government. Of this increased number, 38 would be case-handlers directly involved in the implementation of anti-trust legislation [sic]. As far as enforcement is concerned, the Slovak Anti-Monopoly Office in 2001 adopted 167 decisions of which 24 concerned agreements restricting competition, 25 abuse of dominant positions, and 118 mergers. Of these, 9 decisions (including 2 imposing fines) prohibited vertical or horizontal restrictive agreements. There have been no prohibition decisions on abuse of dominance. However, in 2002, several resource-intensive investigations into international merger cases led to approval decisions subject to substantive conditions" (page 62).
Slovenia	"The Competition Protection Office, the national anti-trust authority in Slovenia, has continued to build on its enforcement record over the past year. In 2001, the Office adopted a total of 49 anti-trust decisions, in the field of restrictive agreements (6), abuse of dominant position (3), and merger control (40). These led to 4 conditional approvals and prohibitions" (page 58). "While the Competition Protection Office is an authority with the necessary legal powers to enforce competition rules, it needs to be given the necessary resources to carry out the enforcement of the rules in an effective way. Currently, the Office employs 12 civil servants" (page 58).

Source: The text for each country is taken from that country's "2002 Regular Report on [Country's name]'s Progress Towards Accession." These reports can be downloaded from the following website: http://europa.eu.int/comm/enlargement/report2002/

Note: These reports tended to distinguish between measures taken against state aids and other competition or antitrust enforcement activities. All of the above statements about the number of investigations of a national competition enforcement agency refer to the latter. This is not to suggest that state aids are unimportant and that such aids do not distort market outcomes.

C. STUDIES OF THE IMPACT OF COMPETITION POLICY ON BROAD MEASURES OF ECONOMIC PERFORMANCE

274. The 1990s saw the number of jurisdictions that had enacted competition laws exceed seventy (Palim 1998). A growing body of academic research supports this growing emphasis on competition policies to enhance resource allocation in an era of internal reform, economic restructuring, and trade and investment liberalization.

275. Such research has drawn upon recent collections of large cross-country datasets of the factors which impede or facilitate competition in national markets, including measures of the strength of national competition or antitrust policy. The *Global Competitiveness Report 2001-2002*[58], for example, reports the average responses of business leaders in over 70 economies to three competition-related and competition policy-related questions.[59] Each business leader was asked to grade on a seven point scale their responses to the following statements:

– "Anti-monopoly policy in your country is (1=lax and not effective at promoting competition, 7=effectively promotes competition)."

– "In most industries, competition in local markets is (1=limited and price cutting is rare, 7=intense and market leadership changes over time)."

– "Is competition in your country's transportation sectors sufficient to ensure high quality, infrequent interruptions, and low prices? (1=no, 7=yes, equal to world best.)"

276. The first statement refers to the effectiveness of one form of competition policy[60], the second to the extent of competition in a nation's market, and the third to a measure of the intensity of competition in a sector of the economy that is often seen as critical to development. The reported values of these survey responses for over 70 non-OECD and OECD nations are reported in Appendix III.A. The measure of the effectiveness of anti-monopoly policy takes a value of 3.7 in non-OECD nations and 5.1 in OECD members (recall the scale is from one to seven.) The correlation coefficient in the non-OECD nations between measure of the effectiveness of anti-monopoly policy and the perceived intensity of competition in national markets is 0.68, which is strikingly high. Similarly suggestive of a link between antitrust enforcement and the intensity of competition in national markets is the data in figure III.F1, which plots these two measures for all of the nations surveyed in the *Global Competitiveness Report 2001-2002.* To the extent that intense competition results in

[58] This report is published annually by the World Economic Forum and is listed in the references as World Economic Forum (2002).

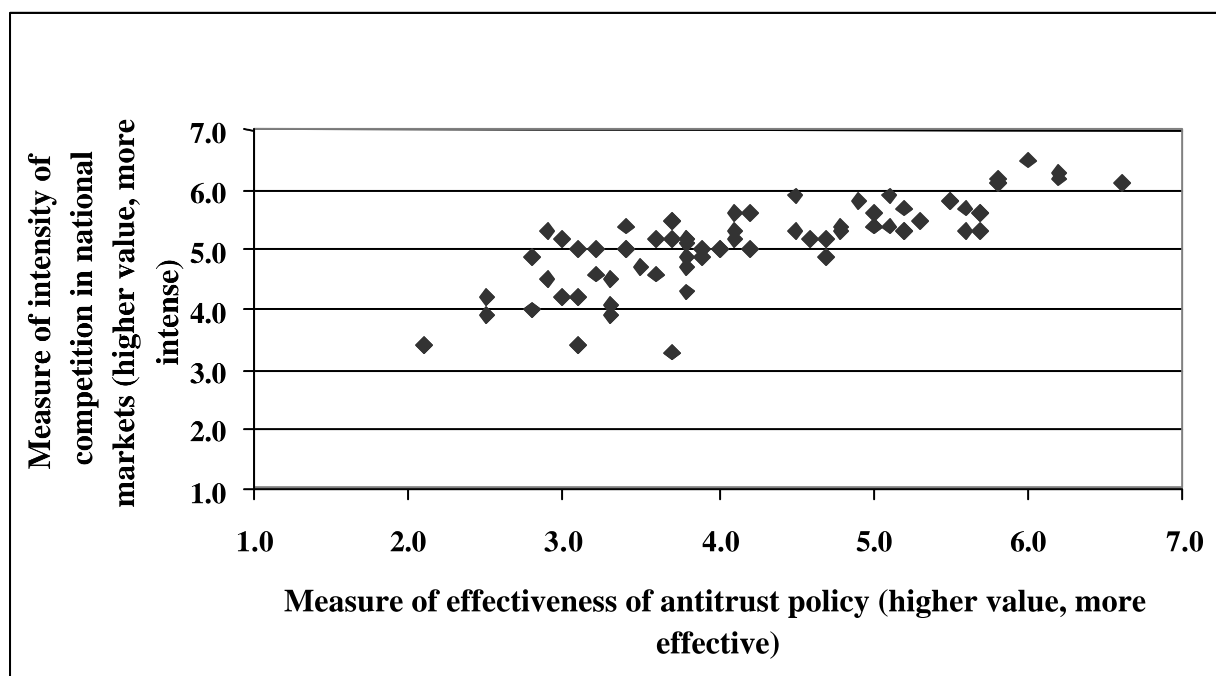
[59] It should be noted that academic opinion is divided over the usefulness of these subjective measures of national business environments and the policies that impinge upon them. One concern is that having observed desirable economic outcomes—such as higher levels of economic growth or foreign direct investment—business leaders *assume* that the policies in the economy in question are playing a beneficial role. Others have argued that it is difficult—if not outright misleading—to compare the responses of business people in one country with a different set of business people in another country. It is said that national differences in culture may condition how business people respond to surveys of this kind. Having said all of this, it is striking just how often measures from this *Report* are being used in economic research and in policy analyses; and this is indicative of at least some researchers' confidence in the value of these survey responses. A distinct rationale for reporting these survey responses here is that they do, for better or for worse, constitute part of the empirical record on national competition enforcement in developing and industrialized economies.

[60] This *Report* does not define precisely what is meant by the term "anti-monopoly" policy. It could, for instance, be taken to mean policies to prevent the creation of monopolies; a rather narrow definition. Alternatively, it could mean policies to prevent incumbent a firm or firms from exercising monopoly power—even if those firms are not monopolists in the markets that they serve.

lower prices and a better allocation of national resources, then on this evidence competition policy may play an important role in attaining these goals.

277. Other studies have examined the impact of competition policy on different measures of economic performance. These studies invariably employ econometric techniques to strip out—or "control for" in language of researchers—the variation caused by other pertinent factors, so enabling the analyst to isolate the impact of competition policy on the measure of economic performance being studied. Dutz and Hayri (1999) found that, after controlling for the many determinants of economic growth, national output grew at a faster rate in economies that took more strenuous steps to promote competition and to attack market power.

Figure III.F1: Intensity of competition and antitrust policy



Source of data: Mean survey responses for these variables in the World Economic Forum (2002).

278. More ambiguous results on the effectiveness of competition law can be found in Hoekman and Lee (2003). Using data from 28 industries in 42 countries for the years 1981 to 1998, they first estimate the price-cost mark up in each industry in each country. They then show that these estimated mark ups tend to be smaller in economies with greater import penetration and lower domestic barriers to entry. They further show, using a dichotomous indicator of whether a country has a competition law or not, that such laws have no direct independent and statistically significant impact on the estimated price-cost margins. However, once they take account of the fact that nations choose whether to enact a competition law, they find that:

> "…industries that operate under a competition law tend to have a larger number of domestic firms, suggesting that in the long run, competition laws may have an indirect effect on domestic industry markups by promoting entry" (Hoekman and Lee 2003, page 4).

279. Although these authors would prefer to stress the importance of barriers to entry, this latter finding is also consistent with the view that the enforcement of competition law discourages incumbent firms from taking steps to frustrate the entry of new firms.

280. On the basis of these findings Hoekman and Lee (2003) conclude:

> "While competition law is potentially an important component of a pro-active competition policy, the analysis in this paper suggests that dealing with trade barriers and government regulations that restrict domestic competition by impeding entry and exit by firms may generate a higher rate of return" (page 23).

281. This carefully crafted conclusion should be interpreted with caution. Hoekman and Lee (2003) do not calculate the rates of return on trade reform, investment liberalization, and measures to reduce barriers to entry, as one might expect given the strength of their conclusion. The costs of relevant reforms—which in the case of tariff reductions would include the potential loss of tariff revenues—are not considered in their paper, even though they ought to be part of any cost-benefit analysis of this issue. At best, this paper has illuminated one set of factors that are central to any such a cost-benefit analysis.

282. The effects of competitive policies have also been traced through to firm behaviour. In a study of Eastern European and other transitional economies, Dutz and Vagliasindi (2000) found that enhanced enforcement (not merely enactment) of competition policies facilitates the growth of higher productivity firms in an industry—that is, inefficient firms cannot be cushioned by the profits acquired through the exercise of market power.[61]

283. Carlin *et al.* (2001) used survey data on 3,300 firms in 25 countries to examine whether the degree of competition that a firm's manager perceives he or she is up against has a positive effect on a number of dimensions of performance. They found that the more rivals a firm perceives itself as having and the more sensitive a manager perceives the demand for its products to be, the better was the firm's record at improving productivity, cutting costs, and the greater the rate at which it developed new products and improved existing products.

284. To summarize, there is a nascent but growing empirical literature that has identified positive effects on macroeconomic performance of stronger enforcement of national competition laws in developing economies. This research complements the large body of evidence on the beneficial impact on the long-term performance of firms and customers of greater rivalry, which can be enhanced by the appropriate enforcement of competition law. To the extent that the adoption of a multilateral framework on competition policy encourages more active and appropriate enforcement of competition laws then, on the basis of the above evidence, both macroeconomic and firm level economic performance will improve in developing (and, for that matter, industrialized) economies.

285. This section and the last one primarily focused on the domestic subjects of, and domestic consequences of, the enforcement of competition laws in developing economies. In the following sections the focus shifts to one major external source of anti-competitive harm in developing economies, namely that of private international cartels. Following an increase in enforcement actions against these cartels, by the end of the 1990s a body of research emerged that better documented the nature, scale, and effects of these cartels on commerce in both developing and industrialized economies. Although there may be other external anti-competitive practices that are damaging the interests of developing economies, the empirical record on them is far less well developed than in the case of cartels. That is not to say that the former are unimportant; rather, that similarly convincing demonstrations that they are important have yet to be established.

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[61] Please note that this paper was circulated at the OECD's Global Forum on Competition in February 2002.

D. THE GROWTH OF INTERNATIONAL CARTEL ENFORCEMENT SINCE 1993

286. In recent years the anti-competitive harm to developing economies caused by private international cartels has received much attention.[62] This type of private cartel arises when:

– private firms from more than one economy make an explicit agreement to either fix prices, divide up markets, or rig bids for contracts; or

– private firms from the same economy make an explicit agreement to either fix prices, divide up customers, or rig bids for contracts in more than one nation's markets.[63]

As will become clear below, such cartels have effects other than raising prices above costs and in so doing shifting the benefits of international trade towards cartel members.

287. On the face of it, the integration of national markets through trade and investment reform should have made it harder to sustain private international cartels—at least those cartels that raise prices substantially. Even if it is generally the case that trade reform undermines market power, the large number of international cartels uncovered in the 1990s suggests that market forces alone do not offer complete protection against this menace to international commerce.[64]

288. A brief account of why international cartel enforcement surged in the 1990s is instructive as it highlights the potential effectiveness of national anti-cartel regimes.[65] The pick up in cartel prosecutions occurred after 1993, when the United States revised its cartel enforcement practices so as to strengthen the incentives for a cartel member to break away from its co-conspirators and to provide evidence of the cartel's operations to authorities in return for a reduction in the penalties subsequently imposed. Essentially the US authorities guarantee, under certain conditions, that the first cartel member which cooperates with their inquiries will obtain a full amnesty from fines and criminal sanctions for the firm's executives.[66] Combined with the very strength of sanctions against cartelization in the United

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[62] This is not to suggest that cartels involving state-owned enterprises are unimportant.

[63] This definition of a private international cartel is to be distinguished from that of a "hardcore" cartel. This latter term has acquired a special significance since Organisation for Economic Cooperation and Development (OECD) members agreed to a non-binding "Recommendation" on such cartels. In this recommendation, a hardcore cartel is

> "an anti-competitive agreement, anti-competitive concerted practice, or anti-competitive arrangement by competitors to fix prices, make rigged bids (collusive tenders), establish output restrictions or quotas, or share or divide markers by allocating consumers, suppliers, territories, or lines of commerce" (OECD 1998, page 3).

Perhaps the most important distinction between the definition of private cartels elaborated in the text above and that of hardcore cartels is the repeated use of the phrase "anti-competitive" in the latter. This raises the issue as to whether a cartel could be pro-competitive, that is, whether a cartel's formation could result in lower prices for purchasers. As some Chicago-school scholars (such as Landes, 1983) have pointed out, as a theoretical matter it is possible for a cartel—under certain specific circumstances—to result in large enough cost reductions that prices paid by purchasers actually fall. The relevance of this theoretical observation for policy discourse has not been established in the available empirical evidence on private international cartels.

[64] OECD (2002a) contains a detailed overview of the enforcement actions against hardcore cartels in the 1990s.

[65] This is not to suggest that international cartels have not been the subject of policy debate and enforcement actions before 1993. See Scherer (1994) for an account of the relevant history in this regard.

[66] Details of the US leniency programs for criminal antitrust violations, such as cartelization, can be found at http://www.usdoj.gov/atr/public/criminal.htm More generally, the role of leniency programs in prosecuting hardcore cartels is described in OECD (2002b).

States—which include provisions for executives to be jailed—this change in amnesty (or leniency) provisions provided cartel members with strong incentives to come forward with information. Moreover, the alternative to inducing firms to come forward with evidence is for enforcement authorities to search for evidence of cartelization, which is often costly, a potential source of harassment of the private sector, and can be fruitless—especially when sophisticated cartel members hide evidence of their meetings and agreements beyond the reach of a nation's enforcement agency.

289. What did this combination of strong sanctions for cartelization and a specially-tailored leniency program accomplish for the United States? Before 1993, approximately one firm a year applied for leniency and significant international cartel cases were rare. Now, on average one firm a month applies for leniency. US fines against domestic and international cartels during the 1990s totaled $1.9 billion. These fines were based in part on the damage done to the US economy by these cartels, and do not include harm done abroad.[67]

290. In recent years the European Commission has stepped up its cartel enforcement efforts, so much so that in 2002 the EC fined cartel members over a billion euros for their part in conspiracies that distorted markets in the European Union. The EC has also revised its Leniency Programme in February 2002 so as to strengthen the incentives of cartel members to come forward with information.[68]

291. The US and European Commission's antitrust authorities alone have prosecuted during the 1990s forty international cartels involving private firms. Twenty-four of these cartels lasted at least four years—calling into question the view that market forces quickly undermine cartels (Evenett, Levenstein, and Suslow, 2001). Moreover, firms from thirty economies—eight of the developing economies—participated in these cartels, suggesting that membership is not confined to a small group of countries. Furthermore, the variety of goods involved in recent cartel cases suggests that this anti-competitive practice is not generic to a few industries (see table III.T6 on both counts).

292. Many of the cartels uncovered by the US and European authorities were conspiracies to carve up international markets. The publicity associated with these prosecutions, plus the substantial fines imposed, attracted the attention of other countries' enforcement agencies and now attacking cartels is no longer the exclusive preserve of a small number of industrial nations. Brazil and Korea, for example, have undertaken investigations and prosecutions of private international cartels.

[67] US antitrust officials have given numerous speeches on their cartel enforcement experience which contain much illuminating material. These speeches can be downloaded at http://www.usdoj.gov/atr/public/speeches/speech_criminal.htm

[68] Further information about EC cartel enforcement can be found at http://europa.eu.int/comm/competition/speeches/index_theme_1.html.

Table III.T6: Economies whose firms were found to be engaging in cartelization by the US and the EC during the 1990s

Economy	Cartel
Angola	Shipping
Austria	Cartonboard, citric acid, newsprint, steel heating pipes
Belgium	Ship construction, stainless steel, steel beams
Brazil	Aluminum phosphide
Canada	Cartonboard, pigments, plastic dinnerware, vitamins
Denmark	Shipping, steel heating pipes, sugar
Finland	Cartonboard, newsprint, steel heating pipes
France	*Aircraft*, cable-stayed bridges, cartonboard, citric acid, ferry operators, *methionine*, newsprint, *plasterboard*, shipping, sodium gluconate, stainless steel, steel beams, seamless steel tubes
Germany	*Aircraft*, graphite electrodes onboard, citric acid, aluminum phosphide, lysine, *methionine*, newsprint, pigments, *plasterboard*, steel heating pipes, seamless steel tubes, vitamins
Greece	Ferry operators
India	Aluminum phosphide
Ireland	Shipping, sugar
Israel	Bromine
Italy	Cartonboard, ferry operators, newsprint, stainless steel, steel heating pipes, seamless steel tubes
Japan	Graphite electrodes, lysine, *methionine*, ship transportation, shipping, sodium gluconate, sorbates, seamless steel tubes, thermal fax paper, vitamins
Luxembourg	Steel beams
Malaysia	Shipping
Mexico	Tampico fiber
Netherlands	Cartonboard, citric acid, ferry operators, Ship construction, sodium gluconate, Tampico fiber
Norway	Cartonboard, explosives, ferrosilicon
Singapore	Shipping
South Africa	Diamonds, newsprint
[Korea]	Lysine, *methionine*, ship transportation, shipping
Spain	*Aircraft*, Cartonboard, stainless steel, steel beams
Sweden	Cartonboard, ferry operators, newsprint, stainless steel
Switzerland	Citric acid, laminated plastic tubes, steel heating pipes, vitamins
[Chinese Taipei]	Shipping
UK	*Aircraft*, cartonboard, explosives, ferry operators, newsprint, pigments, *plasterboard*, shipping, stainless steel, seamless steel tubes, steel beams, sugar
US	*Aircraft*, aluminum phosphide, bromine, cable-stayed bridges, cartonboard, citric acid, diamonds, ferrosilicon, Graphite electrodes, isostatic graphite, laminated plastic tubes, lysine, maltol, *methionine*, pigments, plastic dinnerware, Ship construction, ship transportation, sorbates, Tampico fiber, thermal fax paper, vitamins
Zaire	Shipping

Source: Evenett, Levenstein, and Suslow (2001).

Note: Products in italics were under investigation at time of publication.

E. THE EFFECTS OF PRIVATE INTERNATIONAL CARTELS ON DEVELOPING COUNTRIES

293. In the last three years a number of studies have identified and estimated the costs to developing countries of the private international cartels that were prosecuted in the 1990s.[69] These studies have grown in sophistication, reflecting the cumulative efforts of scholars, government officials, and international organizations in collecting data on this subject. As will become evident, the focus of much research has been on estimating the overcharges paid by purchasers in developing countries. However, evidence is coming to light that suggests that exporters in developing country have been hurt by these cartels too. This further reinforces the case for strengthening policies and enforcement institutions to take against anti-competitive practices that impinge on developing economies.

294. Although estimates vary the price increases caused by international cartels are of the order of 20-40 percent (Connor 2001, Levenstein and Suslow 2001, and OECD 2002a,b). The price increases generate sizeable overcharges, especially given the large amount of imports by developing economies of cartelized products. Over time research has refined the calculations of harm done to purchasers in developing economies by international cartels. The first such calculation was performed by Levenstein and Suslow (2001).

295. In a background paper for the World Bank's *World Development Report 2001*¸ Levenstein and Suslow (2001) identified the international trade flows in 1997 that best matched the products sold by sixteen international cartels which operated at some point during the 1990s.[70] Developing countries' imports of these goods in 1997 amounted to US $81.1 billion, an amount that represents 6.7 percent of these countries' imports and 1.2 percent of their national incomes. (For the least developed countries these percentages were even higher.) With an estimated increase in prices of between 20 and 40 percent, one can then calculate a range of estimates for the overcharges paid by developing countries in 1997 had all sixteen of these cartels been in operation during that year. These overcharges are in the range of US $16-32 billion, which are large sums when one appreciates that they are equivalent to between one third and two thirds of the annual total multilateral and bilateral aid received by developing countries in the late 1990s.

296. An alternative approach to Levenstein and Suslow (2001) is to calculate year-by-year, throughout the 1980s and 1990s, the value of developing country imports that are affected by international cartels. Evenett and Ferrarini (2002), in a background paper for the World Bank's *Global Economic Prospects 2003*, performed these calculations for twelve of the

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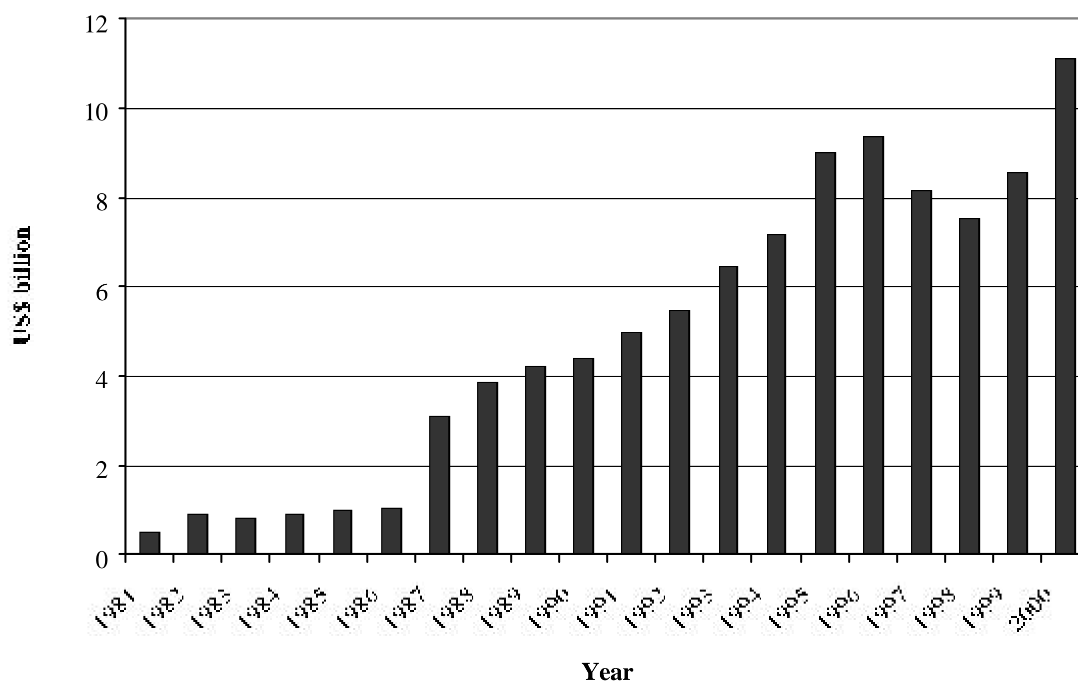
[69] Although this section focuses on the scale of recently prosecuted international cartels, it is worth observing—for comparative purposes—that in the 1930s international cartels were thought to control to some degree between 30 and 50 percent of world trade (Scherer 1994, page 46.) In none of what follows is it suggested that the proportion of international trade flows currently affected by private international cartels has reached levels observed in the 1930s. Nevertheless, given that scale of international commerce today is much larger than it was in the 1930s, even if very small percentages of international trade are affected by private international cartels then it is quite plausible that billions of dollars of harm—perhaps even tens of billions of dollars of harm—are being inflicted on customers around the world. In the year 2002 the total value of merchandise imports equaled US$6.501 trillion dollars. Of that amount, US$1.704 trillion was imported by developing countries. The latter figures are taken from WTO (2003).

[70] These authors were able to identify for each of the sixteen cartels in their study the four-digit United Nations' international trade flow that *best* corresponds to the cartelized product. Their study used 1997 data on international trade flows because—at the time they prepared their study—this year's data was the last year of such United Nations' data that was inexpensively available to academics. Data after 1997 and data that is more disaggregated than that reported by the United Nations is available but at a cost that is beyond the reach of many academic researchers in the United States and in Western Europe.

sixteen international cartels studied by Levenstein and Suslow. This approach has the advantage of only counting the imports of developing countries as being affected in a given year—say 1993—if the international cartel in question was in operation in that year. Figure III.F2 plots in year 2000 US dollars the total value of developing country imports that are affected by twelve private international cartels. What is evident is that a substantial amount of developing countries' imports are affected by such cartels. Since 1995, developing countries imports of these twelve cartelized products exceeded US $8 billion in all but one year; and in 2000 the value of such imports exceeded US $10 billion. The overcharges on such imports amount to a recurring drain on the purchasing power of developing country purchasers of the affected goods. It is also worth noting that the data reported in figure III.F2 does not include date on 28 of the 40 private international cartels that have been prosecuted in the 1990s. The true value of the developing country imports is likely to be multiples of the numbers reported here.

Figure III.F2: Total imports of twelve cartelized products by developing economies, 1981-2000



Note: Values reported in year 2000 United States dollars.

297. Further details on six high profile international cartel prosecutions are given in Appendix III.C. The fact that each of these cartels involves the sale of intermediate goods is not atypical—and suggests that the costs of those corporate purchasers of intermediate products are also adversely affected by cartelization. To the extent that these buyers of intermediate inputs face stiff competition for sales of their products in international markets, then export performance is being hindered by international cartels too. (See box III.B2 for a case study that highlights this point.) Furthermore, for these six international cartels, the estimated price increases due to cartelization do vary widely—from 10 percent for stainless steel tubes to 60-70 percent for graphite electrodes. Given these percentage price increases, it is not surprising that two of these six cartels alone (vitamins and graphite electrodes) have resulted in estimated overcharges of over a billion US dollars each.

298. Given the cartels in Appendix III.C lasted several years, it is noteworthy that the fines imposed by authorities often fell well short of the estimated overcharges. Of course, overcharges are not the same as the additional profits obtained from cartelization. However, given that forward looking firms will discount any fines for engaging in cartelization by the probability of getting prosecuted, on the basis of some of the fines imposed during the 1990s, concerns may well arise about the strength of the deterrence of certain national anti-cartel regimes (OECD 2002a).

Box III.B2: The graphite electrodes cartel, 1992-1997

Graphite electrodes are used primarily in the production of steel in electric arc furnaces. In a highly concentrated world market, two firms (one German and one American) had a combined market share of roughly two-thirds at the beginning of the 1990s. Japanese producers supply a considerable part of the remainder, with modest contributions from a number of smaller producers based in certain developing countries, principally India and China. All of the major producers in this market operate production facilities in a number of countries, including developing countries such as Brazil, Mexico, South Africa, Russia, and Poland, and sell their products throughout the world.

In 1999, all seven major producers of graphite electrodes plead guilty to price-fixing between 1992 and 1997, following an investigation by the United States Department of Justice. Similarly, major firms in the Canadian, European Union, and Korean markets were convicted and fined by those jurisdictions' respective authorities.

According to US and European Commission documents, cartel members agreed to:

1. increase and maintain prices,
2. allocate volume among conspirators,
3. divide the world market among themselves,
4. reduce or eliminate exports to members' home markets,
5. restrict capacity,
6. restrict non-conspirator companies' access to certain technology,
7. exchange sales and customer information in order to monitor and enforce the cartel agreement,
8. issue price announcements and price quotations in accordance with the agreement.

The OECD estimates that:

"the cartel affected $5-7 billion dollars in sales world-wide. Throughout the world, the cartel resulted in price increases from roughly $2000 per metric ton to $3200-$3500 in various markets" (OECD 2000, page 13).

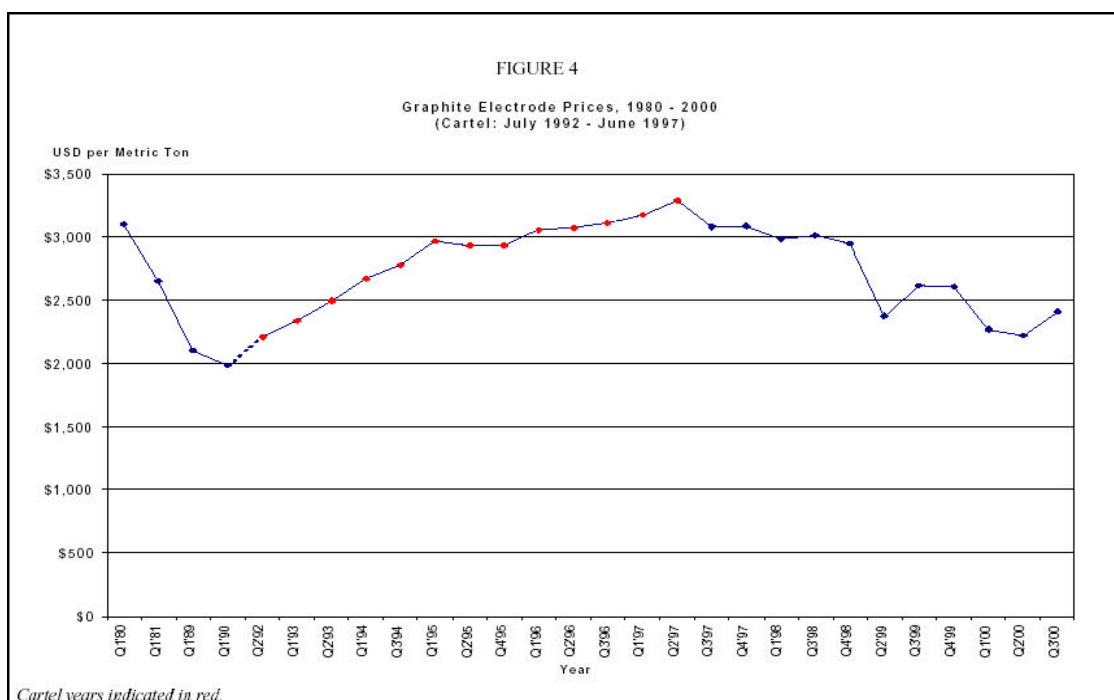
Graphite electrodes prices in the US market are shown the figure below. Prices started rising immediately after the conspiracy started, and display a clear downward trend since the break-up of the cartel in 1997. Although there is some evidence that actual transaction prices paid by developing country purchasers were in some cases lower than for consumers based in advanced economies, the fluctuations in the US price can be assumed to accurately represent the changes in prices in world markets. Clearly, the cartel's negative effects on developing country purchasers were significant, especially for those depending on graphite electrodes imports for steel production. High prices in the graphite electrodes markets translated into higher import prices of steel-based intermediate products for developing countries (Levenstein and Suslow 2001).

The only direct estimate of pecuniary harm caused to purchasers in developing countries comes from the Korea Fair Trade Commission (KFTC), which in March 2002 convicted six graphite electrode manufactures from the US, Germany, and Japan. According to KFTC, Korean steel manufactures

"imported graphite electrodes amounting to US$553 million from the six companies from May 1992 to February 1998, and during the period the import price increased from an average of US$2,225 per ton in 1992 to an average of US$3,356 in 1997 (about 48.9% price increase). The damage incurred by the companies importing graphite electrodes is estimated at approximately US$139 million. Korea's major industries such as automobile and shipbuilding that consume much steel were also influenced by this international cartel" (KFTC 2002, page 2).

Since the break-up of the cartel, the industry has seen the formation of several joint ventures, such as the one between UCAR, a leading US corporation, and Jilin Carbon, the largest Chinese producer of graphite electrodes.

Figure III.F3: Graphite Electrode Prices, 1980-2000 (Cartel: July 1992-1997)



Source of figure: Levenstein and Suslow 2001, page 83.

Notes: The above figure refers to prices of graphite electrodes in the US market. There is anecdotal evidence that transaction prices paid by developing country purchasers were lower than in the US Nevertheless, the fluctuations in US prices shown above can be assumed to represent an approximate trend of prices in the world markets.

299. The effects of certain individual private international cartels have been analyzed with econometric techniques (Connor 2001, White 2001, and Clarke and Evenett 2003). A recent analysis of the international vitamins cartel, which divided up the world markets for various types of vitamins from 1989 until 1999, was able to recover estimates of the overcharges paid by 90 vitamins importing nations throughout the 1990s. Table III.T7 presents the estimated overcharges on vitamins imports by 90 economies for the duration of this cartel (see Clarke and Evenett 2003, for further details.[71]) The total overcharges in four developing countries exceeded US$100 million (in year 2000 US dollars) and in six more they exceeded US$50 million. The total overcharges for the ten European Union members reported in table III.T7 was estimated to equal US $660.19 million; that is, two thirds of a billion dollars.[72] The total overcharges by these 90 importers amounted to US$2709.87 million throughout the 1990s; just under two and three quarter billion dollars for this one cartel alone. In essence, the international vitamins cartel—like a number of other contemporary private international cartels—exploited the very open markets that the multilateral trade reforms seek to encourage so as to raise prices and transfer billions of dollars of rents from purchasers to cartel members.

300. Clarke and Evenett's (2003) analysis of the vitamins cartel also revealed that countries in Asia, Latin America, and Europe that did not have records of national cartel enforcement tended to be particularly targeted by the international vitamins cartel. For example, Latin American countries without a recent record of cartel enforcement saw their total import bill for vitamins rise by 53 percent after the formation of the cartel, whereas those nations with cartel enforcement records saw imports rise by 38 percent. This finding attests to the deterrent value of more strenuous national cartel enforcement efforts as it suggests that the vitamins cartel members decided to raise prices less in those economies with active anti-cartel policies. That is, even though active cartel enforcement did not deter the formation of this cartel in the first place, it would appear that the credible threat of potential future enforcement did discourage the members of this international cartel from raising their prices as much as in jurisdictions with little or no cartel enforcement.

301. These estimates of the deterrent effect of active cartel enforcement regimes may shed *some* light on the relative magnitudes of the costs to national treasuries and of the benefits more generally of adopting multilateral provisions on cartels. To recap, the associated state outlays and benefits include (i) the cost of drafting and enacting a cartel law, the cost of establishing the relevant enforcement agency and of developing the necessary expertise, (ii) the ongoing budgetary cost of enforcing a cartel law, (iii) the costs to the private sector of any unwarranted bureaucratic harassment that may follow enactment of a cartel law, (iv) any benefits to the national treasury associated with deterring the *formation* of bid rigging cartels *in the first place*, and (v) any benefits associated with deterring the *formation* of cartels that target private sector customers *in the first place*, (vi) any benefits to national treasuries that accrue from bid rigging cartels setting submitting lower bids in jurisdictions with active cartel enforcement regimes, and (vii) any benefits to private sector customers that accrue from cartel members setting lower prices in jurisdictions with active cartel enforcement regimes.

302. In the context of the international vitamins cartel, the findings in Clarke and Evenett (2003) enable a direct comparison of cost (i) and benefit (vii) for a number of developing and industrial countries, and their focus should not be taken to mean that these authors regard the other costs or benefits as unimportant. Thus, the reduction in overcharges on vitamins imports associated with stronger cartel enforcement efforts is a benefit is compared to the cost of implementing national competition policies. Table III.T8 presents estimates, for three Latin

[71] Critical to this empirical analysis is the assumption—backed up by industry evidence—that the demand for vitamins is price-inelastic.

[72] No doubt differences in the size of the economies in India and the EU account for much of the difference in the amount of overcharges.

American economies and 10 members of the European Union, of the additional overcharges on vitamins imports that these nations would have paid if they did not have a cartel law or an active cartel enforcement regime. These additional overcharges are compared in this table to the fiscal "saving" that would have resulted from shutting down each nation's entire competition enforcement apparatus. As reported in the fifth column of table III.T8, the additional overcharges from this single cartel are equivalent to seven, 46, and 66 percent of the public outlays on Peru's, Mexico's, and Brazil's competition authorities.[73] In the 10 European Union members mentioned in table III.T8 the comparable percentage was 96, implying that the reduction in overcharges on one international cartel alone almost covered the entire cost of these ten economies' national competition authorities and the Brussels-based enforcer of competition law.

303. Findings such as those above imply that just one of the four benefits of active cartel enforcement (benefit (vii) listed above) may be of a sufficient order of magnitude to justify the public outlays on cartel enforcement and supports the view that there are likely to be sizeable benefits from implementing multilateral provisions on hardcore cartels.[74] Moreover, to the extent that the proposed multilateral provisions on voluntary co-operation further strengthen the ability of competition agencies to successfully conduct investigations into hardcore cartels, then this will increase the deterrents to cartelization—the values of which are central to the cost-benefit calculations reported above.[75]

304. In fact, the evidence points to the possibility that the benefits to developing countries of effective measures to tackle international hardcore cartels could *exceed* the welfare gains from liberalizing certain impediments to market access in the context of the Doha Round. For example, in the September 2002 edition of the IMF's *World Economic Outlook* it is estimated that the increase in the welfare of developing countries that would result from measures to liberalize the agricultural policies of industrialized economies would be approximately US$8 billion per annum.[76] Undoubtedly, this constitutes a sizeable potential benefit for developing economies. However, it might also be borne in mind that in 2002 developing countries imported merchandise worth US$1.704 trillion. In fact, in order for disciplines on hardcore cartels and on voluntary cooperation to yield a US$8 billion reduction in overcharges to developing countries—that is, a benefit to developing countries of the same scale as the IMF estimate of the welfare gain to them from liberalizing industrial countries' agricultural

[73] The US$10.963m figure reported in Table III.T8 is the annual budget of the three government agencies in Brazil that play some role in enforcing its competition laws; namely, the Secretariat for Economic Monitoring (SEAE), the Secretariat for Economic Law (SDE), and the Administrative Council for Economic Defense (CADE). The source of this figure is Brazil Ministry of Finance (2002).

[74] It should also be added that to the extent that private firms respond to stronger cartel enforcement measures by adopting price-raising but not cartel-like practices—such as collusion and price leadership—then this may detract from the benefits of properly implementing national cartel laws. This concern is of especial importance if the new practice is less easy to deter or prosecute under national competition law.

[75] The reader may have noticed that the calculations reported here are stacked against finding net benefits to cartel enforcement. For starters, one of the benefits of such enforcement (reduced overcharges) is compared to the government outlays on the *entire* competition authority. Such authorities tend to engage in a number of other activities (including merger review and examining vertical restraints) that involve resources and add to the public outlays on competition enforcement. On the other hand, to the extent that competition enforcement agencies in developing countries are *currently* under-funded, then the calculations discussed in the text may overstate the net benefits to cartel enforcement. Having said that, the sizeable magnitudes of the deterrent effects reported in Table III.T8 suggest that there is ample room to expand government outlays on competition enforcement before the subsequent outlays exceed the likely benefits of active cartel enforcement.

[76] For comparative purposes, Chadha *et al* (2000) estimate the gains for developing countries resulting from a 33 % overall reduction of agricultural tariffs to be $ 5.7 billion annually.

policies—international hardcore cartels controlling as little as 1.8 to 3.1 percent of developing countries' imports would have to be deterred or stopped by the implementation of such new disciplines.[77] It is worth pointing out, in this regard, that 1.8 to 3.1 per cent of total developing countries' merchandise imports in 2002 amounts to US $ 28-48 billion of imports – a range that is much less than the $ 81.1 billion of developing countries' imports that Levenstein and Suslow estimated might have been affected by international cartels prosecuted in the 1990s. Those inclined to believe that the imports of developing countries are especially susceptible to international hardcore cartels and that multilateral disciplines on competition policies will go a long way to deterring these cartels might, on the basis of the calculations above, come to the conclusion that such disciplines offer greater benefits to developing countries than certain prominent market access reforms.

F. SUMMARY

305. Readers of this section may have noticed that almost all of the bibliographic references relate to materials that have become available in the last five years. This underlines the fact that the evidentiary record on the prevalence of anti-competitive practices affecting commerce in developing countries has grown considerably in recent years.

306. The economic analyses of the harm done by anti-competitive practices, such as private international cartels, are becoming more sophisticated over time. In one such analysis, the overcharges on cartelized vitamins imports was found to be much higher in Asian, Latin American, and Western European jurisdictions that do not have vigorous cartel enforcement regimes. This finding highlights one of the important benefits of cartel enforcement; namely providing incentives to those cartels (that do have the audacity to form) to limit the amount they overcharge customers in a given jurisdiction.[78]

307. When quantitative estimates of these benefits were compared to the costs of running the agency responsible for enforcing competition laws, considerable returns were found to investments in cartel enforcement activities. It remains to be seen whether other studies will bear out these conclusions. To the extent that they do, such research will further reinforce the case for adopting and enforcing national cartel laws *and* the associated measures that underpin the effective enforcement of national competition laws in general—both of which can be found in current proposals for a multilateral framework on competition policy. The return on these investments in national cartel enforcement can be further enhanced by capacity building and technical assistance measures.

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[77] These calculations assume that the price increase with international cartelization is between 20 and 40 percent, consistent with the findings of Levenstein and Suslow (2001).

[78] Of course, one of the other benefits of having a vigorous cartel enforcement regime is that it deters the formation of cartels in the first place.

Table III.T7: Estimated overcharges from the vitamins cartel, 1990-1999, in year 2000 US dollars; by importer

Importing economy	Millions of US dollars		
	Overcharges paid on vitamins imports during the conspiracy	Total value of imports during years when importer did not have a cartel law	Total value of imports during years when importer did have a cartel law
Economies with evidence of cartel prosecutions in OECD documents			
Brazil	183.37	0.00	665.19
Australia	154.70	0.00	333.63
Italy	153.78	0.00	1040.09
Mexico	151.98	111.33	411.38
UK	147.64	0.00	998.57
Denmark	138.49	0.00	936.62
South Africa	99.93	173.56	39.57
Spain	91.89	0.00	621.47
China	77.61	72.35	56.73
Austria	44.22	88.34	94.16
Chile	38.43	0.00	139.41
Poland	31.50	0.00	213.07
New Zealand	29.26	0.00	63.11
Hungary	24.71	48.73	54.11
Sweden	23.47	36.10	75.03
Norway	19.27	34.85	49.47
Romania	18.99	48.36	16.29
Peru	18.91	3.32	64.43
Ireland	17.76	0.00	120.10
Finland	16.44	28.06	46.08
Greece	13.73	0.00	92.83
Portugal	12.77	0.00	86.39
Bulgaria	5.04	2.87	27.47
Zambia	0.06	0.14	0.01
Economies with no evidence of cartel prosecutions in OECD documents			
Singapore	245.22	849.93	0.00
HK, C	178.48	618.61	0.00
Turkey	82.89	287.31	0.00
Thailand	78.45	271.91	0.00
Argentina	73.83	213.08	0.00
Colombia	54.95	158.60	0.00
Indonesia	48.72	168.85	0.00
Venezuela	45.32	130.81	0.00
Iran	44.25	153.35	0.00
Egypt	38.49	110.66	0.00
Pakistan	36.82	127.62	0.00
Israel	32.30	111.97	0.00
Philippines	29.58	102.53	0.00
Honduras	25.87	74.65	0.00
India	25.71	89.12	0.00
Malaysia	22.94	79.50	0.00
Ecuador	14.82	42.78	0.00
Saudi Arabia	13.11	45.43	0.00
Morocco	12.44	35.77	0.00
Algeria	11.09	31.88	0.00

Importing economy	Millions of US dollars		
	Overcharges paid on vitamins imports during the conspiracy	Total value of imports during years when importer did not have a cartel law	Total value of imports during years when importer did have a cartel law
Economies with no evidence of cartel prosecutions in OECD documents (continued)			
Guatemala	10.41	30.05	0.00
Nigeria	7.00	20.14	0.00
Bangladesh	6.42	22.26	0.00
Syria	5.79	20.08	0.00
Paraguay	4.57	13.18	0.00
Tunisia	4.45	12.80	0.00
Vietnam	4.38	15.19	0.00
Costa Rica	3.82	11.03	0.00
Bolivia	3.45	9.97	0.00
Zimbabwe	3.41	9.80	0.00
Lebanon	3.11	10.77	0.00
Dominican Republic	3.07	8.86	0.00
El Salvador	2.70	7.80	0.00
Jordan	2.54	8.82	0.00
Jamaica	2.11	6.09	0.00
Kenya	1.79	5.16	0.00
Ghana	1.32	3.81	0.00
Nepal	1.21	4.21	0.00
Nicaragua	1.20	3.46	0.00
Cote D'Ivoire	0.88	2.53	0.00
Senegal	0.82	2.36	0.00
Trinidad Tobago	0.81	2.33	0.00
Panama	0.68	1.96	0.00
Madagascar	0.60	1.73	0.00
Ethiopia	0.59	1.69	0.00
Yemen	0.58	2.02	0.00
Mali	0.49	1.41	0.00
Mauritius	0.46	1.33	0.00
Cameroon	0.39	1.12	0.00
Cambodia	0.28	0.98	0.00
Benin	0.22	0.63	0.00
Togo	0.19	0.53	0.00
Tanzania	0.16	0.46	0.00
Haiti	0.11	0.33	0.00
Angola	0.11	0.33	0.00
Gabon	0.09	0.27	0.00
Niger	0.07	0.19	0.00
Congo	0.06	0.19	0.00
Burkina Faso	0.06	0.17	0.00
Malawi	0.05	0.13	0.00
Rwanda	0.04	0.12	0.00
Uganda	0.03	0.10	0.00
Guinea	0.03	0.09	0.00
Laos	0.03	0.10	0.00
Chad	0.01	0.04	0.00
Mozambique	0.00	0.01	0.00

Notes:
1. Total value of overcharges for imports into these 90 economies is 2709.87 million US dollars.
2. This table does not include overcharges for Papua New Guinea or for Korea.

Table III.T8: Estimating the average savings-per-dollar spent on competition enforcement

Economy	Additional overcharges in the absence of a cartel law (millions of US dollars)		Annual cost of competition authority (1999-2000)	Savings on each dollar spent: ratio of last two columns	Overcharges actually paid (millions of US dollars)
	Total throughout the conspiracy	Annual average during 1990-9			
Austria	27.96	2.80			44.22
Brazil	72.09	7.21	10.96	0.658	183.37
Chile	15.11	1.51			38.43
Denmark	278.11	27.81	8.70	3.20	138.49
Finland	13.68	1.37	3.40	0.40	16.44
Greece	27.56	2.76			13.73
Ireland	35.66	3.57	1.60	2.23	17.76
Italy	308.83	30.88			153.78
Mexico	44.59	4.46	9.70	0.46	151.98
Norway	14.69	1.47	7.70	0.19	19.27
Peru	6.98	0.70	10.05	0.07	18.91
Portugal	25.65	2.57			12.77
Spain	184.53	18.45			91.89
Sweden	22.28	2.23	7.30	0.31	23.47
UK	296.51	29.65	46.60	0.64	147.64
Memorandum:					
Sum of entries for EU members above	1220.78	122.08	127.50	0.96	660.19

Note:
The cost of the European Commission's competition enforcement authority was added to the line "EU members above."

Box III.B3: The Lysine Cartel, 1992-1995

Five producers, Ajinomoto and Kyowa Hakko (both from Japan), Sewon/Miwon and Cheil Sugar (both from Korea), and Archer Daniels Midland (an American firm) participated in the lysine cartel between 1992 and 1995. Together these firms controlled 97 percent of global capacity during three years (Connor 2001, page 176). These cartel members engaged in price-fixing, allocation of sales quotas, and the monitoring of volume agreements. At the peak of the cartel's effectiveness in 1994, the price of lysine reached about $1.20 per pound, which was approximately $0.50 above the competitive price level in the long-run (Connor 2001).

Estimates of the overcharges to US customers during the conspiracy period vary and are as high as $141 million (Connor 2001, page 264). Although no formal analysis of overcharges outside the United States is available, the lower prices observed in Asia suggest that overcharges in the rest of the world may be lower than those in the United States. According to Connor, a reasonable projection of the global overcharge by the lysine cartel would be in the range of $200-$250 million (Connor 2001, Table 8.A.4).

It is estimated that the lysine industry produced at least 20 percent less in 1994 than it would have made had there been perfect competition (Connor 2001, page 247). Moreover, the advent of the cartel had the effect of freezing the relative positions of the leading firms in the market, in contrast to the very fluid situation prior to the conspiracy. After the cartel broke up in late 1995, some notable changes in global production shares were observed. In particular, production shares of Sewon and Cheil, the Korean cartel members, increased from 15 percent to 18 percent and from 7 percent to 12 percent respectively, at the expense of other companies (Connor 2001, table 8.A.3).

As to the cartel's effects on developing country producers, clearly the two Korean members benefited from higher sale prices generated by the cartel. On the other hand, potential competitors from developing economies were adversely affected by the aggressive means used to preserve the market allocation agreements by the dominant firms.

Although there were some individual instances of extra-cartel entry by relatively small producers during the 1990s (mainly from Hungary, Slovakia, and South Africa), most of the new entrants began production only after the lysine cartel had broken up in 1995. China seems to be the fastest growing location for new ventures in lysine manufacturing. Several joint ventures began operating in China as early as 1993, and by 2000, the productive capacity of these Chinese operations was estimated at about 13% of world capacity (Connor 2001, figure 7.A.3).

APPENDICES

Appendix I.A: The role of government policy in competitive Japanese industries

Policies towards…	**Entry**	**Rivalry**	**Operating subsidies**	**Technology**	**Suppliers**	**Demand**
Examples of such policies…	**Importing controls; foreign entry restrictions; entry restrictions**	**Subsidies; low-interest loans; tax incentives**	**R&D support; standards setting**	**R&D support; standards setting**	**Interventions in supplier industries**	**Government procurement; influence on demand**
Automobiles	1. GM and Ford were prohibited from car assembly in Japan, and imports were banned in 1936. 2. Import quotas were abolished in 1963. 3. Tariffs were set to protect small domestic cars. Tariff rates were gradually reduced and abolished in 1978. 4. Liberalization of inward FDI began in 1971.	1. MITI sought to standardize products in 1955 to exploit economies of scale and in 1961 to reduce the number of competitors (forming three product groups of product category, of two to three firms each). This effort failed. 2. Japan Development Bank loans were provided to promote mergers (1966-71). Little consolidation occurred. 3. Voluntary export restraints since 1981.	1. Japan Development Bank loans for capital equipment (1954-71). 2. Accelerated depreciation (beginning in 1951). 3. Tariff exemption for production equipment.	1. R&D subsidies to the industry association (1951-59). 2. R&D consortia beginning in 1971 on various issues (emission control, electric car, automated control system, combustion system) 3. Subsidies for the electric car were paid back to the government, indicating the success of the project.	1. Auto suppliers were designated as one of the targeted industries under the Temporary Law for Machinery Industry (1956-70). About 500 companies received favourable loans of a total of $100 million over 15 years, as well as incentives such as accelerated depreciation. 2. Between 1960 and 1965, firms that received favourable loans achieved 4% higher growth rate than non-receiving firms, but the stronger firms might have been the ones to receive support. (Cole and Yakushiji 1984, page 87)	1. Commodity tax favoured small cars in the 1950s, which was disadvantageous for imported large cars. Tax rates were gradually reduced from 1962 and abolished in 1989.
Cameras	None	1. Recession cartel to limit production volume in 1965 lasted nine months. Firms directed their efforts to exports.	None	1. R&D consortia on optical technology members include all the major companies in optical technology including small companies (1962-81). Total budget ¥1.66 billion ($8 million by $1 = 220 yen)	None	None

Policies towards…	**Entry**	**Rivalry**	**Operating subsidies**	**Technology**	**Suppliers**	**Demand**
Examples of such policies…	**Importing controls; foreign entry restrictions; entry restrictions**	**Subsidies; low-interest loans; tax incentives**	**R&D support; standards setting**	**R&D support; standards setting**	**Interventions in supplier industries**	**Government procurement; influence on demand**
Car audio	None	None	None	None	1. Support provided to the semiconductor industry.	None
Carbon fibres	None	None	None	1. Dr. Shindo at the Osaka Industrial Technology testing discovered the world's first PAN-based carbon fibre in 1961.	None	None
Continuous synthetic weaves	None	1. Attempt to scrap-and-build capacity in the mid-1980s led to expansion since the newer looms generally were of higher capacity than old looms.	None	None	1. Synthetic fibre (1949) – tax incentive and favourable loan. 2. Attempt to reorganize and reduce capacity in the synthetic textile industry: recession cartels (1975, 1978-79, 1981).	1. Government procurement of synthetic fibres (1953) – effect unknown.

Policies towards…	**Entry**	**Rivalry**	**Operating subsidies**	**Technology**	**Suppliers**	**Demand**
Examples of such policies…	**Importing controls; foreign entry restrictions; entry restrictions**	**Subsidies; low-interest loans; tax incentives**	**R&D support; standards setting**	**R&D support; standards setting**	**Interventions in supplier industries**	**Government procurement; influence on demand**
Facsimile machines	None	None	1. Low-interest loan to reduce protection costs and to shorted transmission time (existed at least in 1979).	1. MPT accelerated the standardization facsimiles in the early 1970s – ensured that all facsimiles were based on the same technology. 2. NTT began issuing "type approvals" blanket approvals for facsimile machine models that met NTT standards in 1976 – stimulated demand. 3. NTT lab conducted research on technology that directly transmitted thick documents using a technology called "Book Facsimile technology" in the early 1980s. NTT also lab developed an ultra-high speed facsimile that transmitted a page in three seconds – assisted existing manufacturers in helping build a stronger technological foundation.	1. Support to the semiconductor industry.	1. NTT allowed full facsimile transmission over the public telephone system using dedicated lines in 1973 and over regular phone lines in 1974. 2. NTT advertized and marketed facsimile machines in the 1970s. 3. MITI reduced the depreciable life for facsimiles from ten to five years in 1977. This stimulated the purchases of newer, higher priced, higher value-added machines. 4. Patent Office approved applications by facsimile as legal documents in 1985. This gave credibility to the facsimile's existence as a valid communications method in Japan.

Policies towards…	**Entry**	**Rivalry**	**Operating subsidies**	**Technology**	**Suppliers**	**Demand**
Examples of such policies…	**Importing controls; foreign entry restrictions; entry restrictions**	**Subsidies; low-interest loans; tax incentives**	**R&D support; standards setting**	**R&D support; standards setting**	**Interventions in supplier industries**	**Government procurement; influence on demand**
Fork lift trucks	1. Import barriers were completely lifted in 1964-65, spurring improvement by Japanese competitors.	None	1. Small loans were made to a few manufacturers in 1954 to upgrade quality. 2. Some low-interest loan were made available to smaller lift truck companies in 1964, enabling the company to improve the confidence of its banks, and loans from banks became easier.	None	None	None
Home air conditioners	None	None	None	None	None	1. The Energy Conservation Law of 1979 led to efforts to reduce energy usage. Led to the invention of the rotary compressor.
Home audio equipment	None	None	None	None	1. Support to the semiconductor industry	None
Microwave and satellite communicati ons equipment	1. No official entry restriction, but "NTT family" companies (NEC, Mitsubishi, Oki, and Hitachi) received favourable treatment.	None	None	1. NTT developed microwave systems jointly with NEC, Mitubishi, Oki, and Hitachi. 2. NTT Telecommunications Laboratories conducted basic research on microwave and satellite communication technology.	None	1. Government was a major buyer for microwave equipment: NTT (government owned until 1985) accounted for over 50% of sales. Other major buyers were government agencies. Though purchases were conducted through international open tender, it became a mere formality since NTT knew the technological capability of each manufacturer. 3. Government agencies or government related organizations were major buyers for domestic and regional satellite communication.
Musical instruments	None	None	None	None	None	1. Government stimulated early demand for instruments through musical programs in elementary schools.

Policies towards…	Entry	Rivalry	Operating subsidies	Technology	Suppliers	Demand
Examples of such policies…	**Importing controls; foreign entry restrictions; entry restrictions**	**Subsidies; low-interest loans; tax incentives**	**R&D support; standards setting**	**R&D support; standards setting**	**Interventions in supplier industries**	**Government procurement; influence on demand**
Robotics	None	None	1. Low interest loans made available for robot manufacturers in the 1970s. Few companies availed themselves of these loans because the interest rate differential was small and companies had adequate resources.	1. Government sponsored research-at a level far below that undertaken by the companies themselves. 2. R&D consortia on the development of special-purpose robots for use in space, under water, and in nuclear power plants (1983-1991). Total government contribution of ¥20 billion ($16 million)	None	1. Establishment of a leasing system and of Japan Robot Leasing Co. designed to popularise industrial robots among small and medium sized enterprises in 1980. 2. Special finance to small and medium enterprises for introducing industrial robots designed to insure worker safety in 1980. 3. Establishment of a special system for high performance industrial robots provided with computers in 1980. 4. Application of loans and leasing programmes to industrial robots by local governments to help minor enterprises in modernising their equipment in 1980. 5. Establishment of a tax system for promoting investment in advanced equipment provided with electronics for smaller enterprises in 1984. 6. It was believed that these measures were not very important in the growth of the industry.

Policies towards…	**Entry**	**Rivalry**	**Operating subsidies**	**Technology**	**Suppliers**	**Demand**
Examples of such policies…	**Importing controls; foreign entry restrictions; entry restrictions**	**Subsidies; low-interest loans; tax incentives**	**R&D support; standards setting**	**R&D support; standards setting**	**Interventions in supplier industries**	**Government procurement; influence on demand**
Semi-conductors	1. Successfully delayed the entry of Texas Instruments into Japan. By agreement reached in 1968, MITI did not allow the establishment of 100% subsidiary (50-50 JV with Sony, later became a 100% subsidiary). 2. Liberalization of import and foreign investment in December 1974, which was later than other industries.	None	1. Japan Development Bank provided low-interest loans for capital investment from 1966. Amounted to only ¥6 billion ($14 million) in 10 years. 2. Accelerated depreciation of production equipment from 1960s.	1. MITI electronic research lab produced the first domestic IC in 1956. 2. 50% subsidy for LSI development: 1973-74, ¥3.5 billion ($9.7 million) 3. VLSI project (1976–86) ¥130 billion – 22% that was financed by the government led to advancement in the manufacturing technology. 4. Intellectual property rights for the design of LSI strengthened in 1985. 5. The number of college graduates with electronics engineering degree was 1.8 times higher than that in the US in the 1970s.	1. Semiconductor manufacturing equipment suppliers benefited from the VLSI project (though not official members).	1. Establishment of the computer leasing company (JECC) in 1961 – Japan Development Bank loan for the purchase of computer – JECC accounted for 30-70% of the domestic computer demand until 1980s. 2. Series of computer joint development projects since 1962.

Policies towards…	Entry	Rivalry	Operating subsidies	Technology	Suppliers	Demand
Examples of such policies…	**Importing controls; foreign entry restrictions; entry restrictions**	**Subsidies; low-interest loans; tax incentives**	**R&D support; standards setting**	**R&D support; standards setting**	**Interventions in supplier industries**	**Government procurement; influence on demand**
Sewing machines	1. Little or no allocation of foreign exchange for the import of light machinery in the early postwar period. Sheltered the domestic industry.	1. Price controls: fixed the manufacturer's selling price and the resale price of the standardized model, HA-I, at the low level fro 1946 to 1951. Helped stimulate demand forced manufacturers to cut costs.	1. Temporarily se the exchange rate at 415 yen to the dollar in 1948, versus 170 yen to the dollar previously, to provide incentives for manufacturers to allocate production for export to sewing machines.	1. The Sewing Machine Technology Council, under the guidance of MITI, set uniform standards for sewing machines and components and created the first standardized model, the HA-I, with 130 components in 1947. Allowed the entry of numerous small and medium sized subcontractors into the industry, reducing costs. 2. Voluntary inspection councils judged products on a number of dimensions in 1947. This stimulated product quality improvement and upgrades.	(See technology)	1. Mandatory swing classes for girls at public elementary and junior high schools, Ministry of Education provided subsidies toward sewing machine purchases – helped stimulate demand. 2. MITI designated four companies to manufacture 800 household sewing machines for export, and MITI served as a trading company in 1947 – stimulated exports and opened the industry to international competition early on. 3. Elimination of cumbersome paper work and government approval procedures for export in 1948 –drove exports further. 4. Termination of the export quality inspection sy stem in 1960 – government involvement came to an end.
Soy sauce	None	None	None	None	None	1. Establishment of product standards in 1953 to ensure consistency of product quality.
Tires for trucks and busses	None	1. Recession cartel in 1965. Restriction of production volume/allocation of market share. 2. Government "guidance" encouraged reduction in the number of varieties from 167 to 58. Encouraged revision of the production system in 1965.	None	None	None	None

Policies towards…	**Entry**	**Rivalry**	**Operating subsidies**	**Technology**	**Suppliers**	**Demand**
Examples of such policies…	**Importing controls; foreign entry restrictions; entry restrictions**	**Subsidies; low-interest loans; tax incentives**	**R&D support; standards setting**	**R&D support; standards setting**	**Interventions in supplier industries**	**Government procurement; influence on demand**
Trucks	1. Restriction on the number of trucks produced by foreign makers in Japan in 1936. 2. Tariff increase in 1936. 3. Required permits for production: only Toyota, Nissan, and Isuzu received permits in 1936. this policy encouraged industry consolidation during the pre-war period. 4. Import prohibition was lifted in 1961. Few imports occurred because of the low domestic price and different local needs (small trucks).	None	1. Prioritized allocation of materials, capital and labour, special loans in the immediate post-war years helped the development of the industry. 2. Low interest rate loans, a reduction or exemption from taxes, special depreciation rules, reduction or exemption of taxes related to importing of equipment from 1951. Loans only accounted for a small percent of total investment.	None	1. Low interest rate loans to parts manufacturers from 1956 – accounted for 30% of total equipment investment.	None
Typewriters	None	None	None	None	Support to the semiconductor industry.	None
VCRs	None	None	None	1. MITI provided R&D subsidy in 1958. Sony and NHK copied Ampex's (US) VCR, learning the technology. 2. Government attempted through guidance to build an industry consensus around the beta standard. The effort failed.	Support to the semiconductor industry.	None

Policies towards…	**Entry**	**Rivalry**	**Operating subsidies**	**Technology**	**Suppliers**	**Demand**
Examples of such policies…	**Importing controls; foreign entry restrictions; entry restrictions**	**Subsidies; low-interest loans; tax incentives**	**R&D support; standards setting**	**R&D support; standards setting**	**Interventions in supplier industries**	**Government procurement; influence on demand**
Video games	None	None	None	None	Support to the semiconductor industry	None

Source: Porter *et al.* (2000)

Appendix I.B: The role of government policy in uncompetitive Japanese industries

Policies towards…	**Entry**	**Rivalry**	**Operating subsidies**	**Technology**	**Suppliers**	**Demand**
Examples of such policies…	**Importing controls; foreign entry restrictions; entry restrictions**	**Subsidies; low-interest loans; tax incentives**	**R&D support; standards setting**	**R&D support; standards setting**	**Interventions in supplier industries**	**Government procurement; influence on demand**
Apparel	None	None	None	1. R&D consortia on the automated sewing system (1983-91).	1. Support to synthetic fibre industries.	1. Large-Scale Retail Store Act limited the development of alternative channels, encouraging strong relationship between apparel makers and department stores.
Chemicals	1. Government owned plants to provide raw material for the chemical fertilizer industry dating back to the 1870s. 2. Petrochemicals: entry approved (1956-72). Though virtually all the applications were ultimately approved, this policy hindered competition. Even though a minimum scale was set for approval, many plants did not achieve economies of scale.	1. Chemical fertilizers price control (1946-89) and supply control (1946-89). Delayed the chemical sector's shift to petrochemicals. 2. Petrochemicals – approval of capacity expansion, promotion of joint investment (1956-87). 3. Recession cartels for petrochemicals (1972, 1982), synthetic resin (1959, 1966, 1972, 1977, 1982), and fibre (1975, 1978-79, 1981). 4. Excess capacity scrap by petrochemicals (1978-88), synthetic fibre and chemical fertilizers (1978) through cartel formation, with favourable loans and tax incentives. 5. Promotion of mergers, joint production, and sales.	1. Prioritized foreign exchange allocation to the chemical fertilizer industry in 1946. 2. Chemical fertilizers: aid for production facilities, low-interest loans, preferred allocation of raw materials for the introduction of new production facilities since 1954. 3. These policies delayed the chemical sector's shift to petrochemicals. 4. Synthetic resin and fibre (1949), petrochemicals: tax incentive and favourable loans. 5. Petrochemicals: low-interest loans, accelerated depreciation, approval of the import of technologies, allocation of foreign exchange, and tariff exemption for the import of equipment were provided for the government-approved investment plans since 1956.	1. Approval to import foreign technology through foreign exchange allocation (1949-1972). 2. Process patents prior to 1975. This discouraged new product development. 3. Cooperative R&D to reduce energy, reduce raw materials costs, and develop new products since 1967. 4. Favourable loans for new technology commercialization (1951-).	1. Support to the Iran-Japan Petrochemical project (1973-mid-19880s) – discontinued after the Iran-Iraq war. 2. Petroleum industry: approvals for entry, production, capacity expansion, allocation of crude oil throughput to each company (1934-192) – petroleum industry remained uncompetitive. 3. Insufficient number of college graduates with chemical degrees. 4. Weak research in chemicals – limited new product development.	1. Government procurement of synthetic fibres (1953) – effect unknown. 2. Formation of joint sales companies for polyvinyl chloride (four companies from 1982) – MITI's intention was to induce industry consolidation and promote competition between joint sales companies, but in effect the policy worked to establish a joint monopoly.

Policies towards…	Entry	Rivalry	Operating subsidies	Technology	Suppliers	Demand
Examples of such policies…	**Importing controls; foreign entry restrictions; entry restrictions**	**Subsidies; low-interest loans; tax incentives**	**R&D support; standards setting**	**R&D support; standards setting**	**Interventions in supplier industries**	**Government procurement; influence on demand**
Chemicals continued		6. All these practices nurtured the cartel nature of the industry, let the weakest players survive, removed upgrading pressure, delayed product innovation, and reduced rivalry, resulting in few strategy differences among companies.				
Civil aircraft	1. Licensing requirements for manufacturers and repairers. Though virtually all the companies that had planned to enter did enter, this practice fostered the cartel nature of the industry.	1.All aircraft and engine development projects since 1953 are collaborative with predetermined work allocation. No rivalry developed-	None	1. Limited support for basic research facilities and university research.	1. Small military demand.	1. Military procurement since 1930, restarted in 1956 – helped the development of the industry, but limited supply of pilots (compared with US and European countries) as a springboard to develop commercial aircraft. Domestic development of the military aircraft largely ceased by 1977. 2. Prohibition of exports of military aircraft I 1967. Firms could only serve domestic markets. 3. Heavily regulated airline industry and stunted domestic demand because of the policy choice to promote public ground transportation and the limited capacity at major airports and commuter airports – limited demand for commuter airlines.

Policies towards…	Entry	Rivalry	Operating subsidies	Technology	Suppliers	Demand
Examples of such policies…	**Importing controls; foreign entry restrictions; entry restrictions**	**Subsidies; low-interest loans; tax incentives**	**R&D support; standards setting**	**R&D support; standards setting**	**Interventions in supplier industries**	**Government procurement; influence on demand**
Chocolate	1. Imported quota abolished in 1974. 2. 35% tariff since 1974 – reduced to 20% in 1983 and to 10% in 1988.	None	1. Export promotion: subsidy (1939-1949) and tariff relief on primary ingredients in the 1930s. Limited success in promoting exports.	None	1. Promotion of the establishment of sugar and cacao plantations in [former] Japanese colonies in 1939. 2. Abolition of import tariffs on cacao beans in 1929. Helped the development of the industry, but did not continue because of WWII. 3. Restriction of imports of cacao beans in 1937; imports prohibited in 1941. 4. Import quotas on cocoa in the 1950s. Abolished in 1960. 5. Import quotas and domestic subsidies on sugar and milk since 1961. 35% tariff on sugar and milk since 1974. Made essential chocolate ingredients more expensive, Japanese companies were driven to develop a chocolate substitute.	1. Lax regulation of the percentage requirements of cocoa and cocoa butter in grades of chocolate. Indirectly sanctioned the domestic productions of inferior quality products.
Detergents	1. Restriction of inward FDI until 1970. Delayed foreign entry.	1. Abolition of the Resale Price Maintenance System in 1973. Invited price reduction, made the industry even less profitable.	None	1. Process patent (not product patent) on chemicals prior to 1975 discouraged new product development.	1. Support of the petro-chemical industry.	None

Policies towards…	Entry	Rivalry	Operating subsidies	Technology	Suppliers	Demand
Examples of such policies…	**Importing controls; foreign entry restrictions; entry restrictions**	**Subsidies; low-interest loans; tax incentives**	**R&D support; standards setting**	**R&D support; standards setting**	**Interventions in supplier industries**	**Government procurement; influence on demand**
Securities	1. Registration system from 1948 to 1965. 2. Licensing system by the line of business since 1965. 3. Branch office licenses were not granted to foreign firms until 1971. 4. Tokyo Stock Exchange membership was not granted to foreign firms until 1986. 5. These policies all effectively worked as entry barriers and suppressed competition.	1. Allocation of corporate bond underwriting shares since 1951. 2. Allocation of government bond under-writing shares (1965-77). 3. Approval or guidance for setting up new branches, mergers, entry to new businesses since 1965. 4. Fixed commission for brokerage and under-writing until the mid-1980s. 5. Fixed pricing scheme for bond issues. 6. Division of work between banks and securities firms since 1948. 7. All of these policies allowed the weakest player to survive, and discourages innovation. 8. …. Encouraged the sales-driven nature of the business and contributed to stock price manipulation.	1. Emergency loans during the 1964 securities panic and the stock market crash in the 1990s – allowed the weakest player to survive, though Yamaichi eventually went bankrupt.	None	None	1. Securities purchase during the 1964 securities panic – effectively weathered the market downturn. 2. Lenient disclosure requirements and complicated rules for take-over bids – discourages M&A and related businesses. 3. Restrictions on overseas issuance of debt securities by Japanese firms until 1973 – discouraged overseas business.

Policies towards…	Entry	Rivalry	Operating subsidies	Technology	Suppliers	Demand
Examples of such policies…	**Importing controls; foreign entry restrictions; entry restrictions**	**Subsidies; low-interest loans; tax incentives**	**R&D support; standards setting**	**R&D support; standards setting**	**Interventions in supplier industries**	**Government procurement; influence on demand**
Software	1. MITI represented computer makers in negotiating with IBM for licensing agreements in return for allowing IBM production in Japan in 1960. Government approval requirements delayed IBM's full-fledged entry to the Japanese market.	None	1. Loan guarantees by IPA to computer service company. 2. Tax incentives for software companies to promote after-sales maintenance, packaged software development (1979), and system integrators. Effects hard to quantify, but apparently did not yield visible results.	1. R&D subsidy. 2. R&D consortia since 1962. 3. Formation of three groups to develop new computers in 1971, 50% subsidy provided. Contributed to the establishment of computer businesses and software business to some extent, but market forces (that is, US dominance in software) are far stronger than what Japanese companies can do to obtain *de facto* standards.	1. Training centre for programmers, SEs. 2. Qualification exam for programmers. 3. Lagged in software research and education at the university level. Shortage of programmers and software engineers, low productivity. 4. The Law for Labour-Dispatching Business in 1986 discouraged the practice of dispatching software development. This contributed to correct the "body shop" nature of the industry.	1. Establishment of a government-sponsored computer leasing company, low-interest loan provided – contributed to increase the installed base of computers. 2. Prohibition of on-line data transmission until 1972, data exchange via computer until 1982 – regulation lasted longer than the US (allowed the connection of computers in 1968, total deregulation of data communication in 1980), discouraged on-line Data processing and the development of computer networking. 3. Promotion of general-purpose software development and sales through IPA in 1979 – did not play a major role. 4. Copyright law to protect software in 1986 – discouraged illegal software copying. 5. Promotion of computer education at junior and senior high school level in 1993 – came much later than the US.

Source: Porter *et al.* (2000)

Appendix II.A: Contributions to the Working Group relevant to core principles, including transparency, non-discrimination, and procedural fairness

SYMBOL: (WT/WGTCP/-)	MEMBER/ OTHER SOURCE	PARAGRAPH/ PAGE REFERENCE	MATTERS DISCUSSED
W/26	Hong Kong, China	page 1	non-discriminatory trade liberalization tends to enhance microeconomic "technical efficiency"
W/42	Canada	page 2	importance of non-discrimination; transparency; and procedural fairness
W/45	European Community	pages 4-6	the principles of transparency and non-discriminatory treatment of foreign and domestic firms are common to both competition law and the multilateral trading system
W/57	Canada	*passim*	application of the principle of national treatment to competition law
W/89	Switzerland	pages 2 *et seq.*	preliminary elements concerning the relevance of the principles of national treatment and transparency
W/100	Brazil	pages 3 *et seq.*	extension of WTO principles of transparency and national treatment to the antitrust sphere
W/115	European Community	pages 3 *et seq.* pages 8 *et seq.* pages 11 *et seq.*	key elements of competition law and policy and their relationship to transparency and non-discrimination the contribution of competition law towards ensuring non-discrimination and transparency in international trade Scope for developing within WTO core principles of Competition law and its enforcement
W/117	Switzerland	pages 2 *et seq.*	reference to the experience acquired in the area of TRIPS
W/119	Japan	page 3	importance of basic principles of "most-favoured-nation treatment", "national treatment", "transparency" and "competition-oriented principle"

SYMBOL: (WT/WGTCP/-)	MEMBER/ OTHER SOURCE	PARAGRAPH/ PAGE REFERENCE	MATTERS DISCUSSED
W/120	Japan	pages 1 *et seq.* pages 4-5	applicability of WTO Principles to Competition Policy in light of Japan's experience implications that the basic philosophy of competition policy has for the WTO principles
W/131	United States	page 1 *et seq.*	relationships of WTO principles to antitrust law enforcement and competition policy
W/149	India	page 1	importance of the principles of non-discrimination and transparency to the multilateral trading system
W/160	European Community	page 2	there is a need for the inclusion of the principle of non-discrimination in a WTO framework agreement on competition by way of a separate specific provision
W/165	Czech Republic	page 3	a WTO framework agreement should be based on the principles of non-discrimination and transparency
W/173	Canada and Costa Rica	page 1	the Canada-Costa Rica Free Trade Agreement contains commitment to the principles of transparency; non-discrimination; and procedural fairness
W/174	Canada	page 3	importance of a commitment to transparency and non-discrimination in a multilateral agreement on competition
W/175	European Community	page 3-4	how a number of developing country interests and concerns could be addressed in relation to certain core principles such as transparency and non-discrimination
W/209	Secretariat	Entire document	Role of core principles
W/210	New Zealand	Entire document	Role of core principles
W/211	Australia	Entire document	Role of core principles
W/212	Korea	Entire document	Role of core principles
W/213 Rev1	Thailand	Entire document	Role of core principles
W/214	Switzerland	Entire document	Role of core principles
W/215	India	Entire document	Role of core principles
W/216	India	Entire document	Role of core principles
W/217	Japan	Entire document	Role of core principles
W/218	United States	Entire document	Role of core principles
W/219	United States	Entire document	Role of core principles
W/220	South Africa	Entire document	Role of core principles

SYMBOL: (WT/WGTCP/-)	MEMBER/ OTHER SOURCE	PARAGRAPH/ PAGE REFERENCE	MATTERS DISCUSSED
W/221	OECD	Entire document	Role of core principles
W/222	EC and member States	Entire document	Role of core principles

SOURCE: WTO (2002a).

Appendix II.B: Contributions to the Working Group relevant to the treatment of hardcore cartels

SYMBOL: (WT/WGTCP/-)	MEMBER/ OTHER SOURCE	PARAGRAPH/ PAGE REF.	MATTERS DISCUSSED
W/17	UNCTAD	para. 12 (c)	techniques of cartel control
W/21	OECD	*passim*	OECD experiences with cartels
W/23	Poland	page 1	national institutions lacking means to deal with international cartels
W/28	Singapore	para. 11, 15 (b)	implications of exemptions for import and export cartels
W/42	Canada	page 3	implications of exemptions for export cartels
W/43	Turkey	pages 3, 4, 6	necessity of suppression of cartels
W/45	European Community	page 5	analysis of horizontal restraints
		page 8	problems of developing countries with international cartels
		page 9	priority for examination of hardcore cartels
W/48	United States	page 4	mentioning the OECD Recommendation on Cartels
W/51	Canada	page 19	international cartels as emerging problem for competition policy
W/56	Korea	page 2	implications of exemptions for export cartels
W/61	European Community	page 3	role of competition authorities in preventing cartels
W/62	European Community	pages 4 *et seq.*	analysis of cartel cases in European law
		pages 13 *et seq.*	proposals for WTO discussions on cartel issues
W/66	United States	*passim*	experiences with international cartels
W/70	Canada	pages 2-3	examples of enforcement action against cartels
W/71	Czech Republic	page 3	export cartels
W/72	Canada	page 5	focus of Canadian authorities on cartel cases
W/78	European Community	page 14	benefits of a WTO commitment on hardcore cartels
W/95	Kenya	para. 9 (e)	significance of cartels in the informal sector
W/100	Brazil	page 1	impact of cartels
		page 2	cooperation to prevent cartels
W/104	Hong Kong, China	para. 13	exemption of export cartels from competition law in some countries
W/108	Japan	page 2	competition policy as a tool for addressing hardcore cartels
		page 3	cooperation between national competition authorities

SYMBOL: (WT/WGTCP/-)	MEMBER/ OTHER SOURCE	PARAGRAPH/ PAGE REF.	MATTERS DISCUSSED
W/115	European Community	page 5 *et seq.*	implications of exemption of export cartels from national competition laws
W/116	United States	page 5	cooperation agreements and control of cartels
		page 7	reference to OECD Recommendation on Hardcore Cartels
W/117	Switzerland	para. 8 (and 16)	desirability of prohibition of hardcore cartels
		para. 12	publication of anti-cartel laws
W/118	Hong Kong, China	para. 9	implications of exemption of export cartels from national competition laws
W/119	Japan	pages 2, 4	importance of suppressing hardcore cartels
		page 4	exemption of export cartels
W/124	Korea	page 3	OECD Recommendation on Hardcore Cartels
W/126	Zimbabwe on behalf of the African Group	page 2	cartels as priority for developing countries in their approach to competition policy
W/130	European Community	page 4	need for provisions on hardcore cartels
W/133	Korea	para. 12	feasibility of common understanding on prohibition of hardcore cartels
W/134	Japan	page 1-2	cartels and development (including in domestic markets)
		pages 2-3	formerly authorized cartels in Japan
W/135	Japan	*passim*	impact of cartels on international trade
W/140	European Community	page 3	impact of international cartels on developing countries
		pages 6, 8-9	cooperation in cartel cases
		page 8	need for agreement of WTO Members on hardcore cartels
		pages 13 *et seq.*	cartel cases: examples
W/141	Hong Kong, China	para. 10 (a)	relevance of differing approaches to export and import cartels among WTO Members
W/143	Trinidad and Tobago	page 3	impact of international cartels on small open economies
W/145	Japan	page 4	anti-cartel legislation as priority for competition law enforcement
W/149	India	page 2	potential advantages of cartels as reflected in some countries' industrial policies
W/151	Switzerland	pages 2, 4	anti-cartel provisions necessary on a multilateral level

SYMBOL: (WT/WGTCP/-)	MEMBER/ OTHER SOURCE	PARAGRAPH/ PAGE REF.	MATTERS DISCUSSED
W/152	European Community	page 2	importance of anti-cartel law enforcement
W/154	Korea	pages 5, 7, 8	feasibility of a multilateral framework to address anti-competitive practices
		pages 11-12	cooperation and assistance in regard to cartels
		pages 2-3	cartels as problem for the international trading system
W/155	Canada	page 2	importance of national rules and international cooperation
W/156	Japan	page 4	OECD Recommendation on Hardcore Cartels
		page 6	common enforcement action as first step of cooperation
		para. 3 (b)	unique added value of multilateral agreement in area of export cartels
W/160	European Community	pages 4-5	examples of EC cartel cases as argument for international cooperation
W/161	Romania	page 7	cartel legislation as priority for developing countries and for a multilateral agreement
		pages 1-2	cartels as major topic for multilateral agreement
W/164	United States	page 2	anti-cartel law enforcement as priority of antitrust agencies
W/165	Czech Republic	pages 1, 4	anti-cartel legislation as a priority for a multilateral agreement
W/168	Japan	para. 2, 5 *et seq.*	cartels as a problem for trade and development; examples
W/173	Canada and Costa Rica	page 1	provisions addressing cartels/other matters in a bilateral free trade agreement
W/175	European Community	*passim*	effects of cartels, development dimension
W/176	Japan	para. 8 *et seq.*	adverse effects of cartels on development
W/177	Japan	*passim*	status of cartel exemptions in Japan
W/179	Trinidad and Tobago	page 2	enforcing anti-cartel legislation as a priority for small developing economies in area of competition policy
W/184	European Community	page 3	importance of universal ban on hardcore cartels
		page 5	exchange of information in cartel cases
		page 8	impact of cartels on developing countries

SYMBOL: (WT/WGTCP/-)	MEMBER/ OTHER SOURCE	PARAGRAPH/ PAGE REF.	MATTERS DISCUSSED
W/185	United States	*passim*	importance of anti-cartel provisions as component of national competition policy
W/188	Thailand	Entire document	Provisions on hardcore cartels
W/189	Korea	p. 6	Provisions on hardcore cartels (national experience)
W/191	Secretariat	Entire document	Provisions on hardcore cartels
W/193	EC and member States	Entire document	Provisions on hardcore cartels
W/194	Switzerland	Entire document	Provisions on hardcore cartels
W/196	Mexico	Entire document	Provisions on hardcore cartels
W/197	UNCTAD	Entire document	Provisions on hardcore cartels
W/200	Korea	Entire document	Provisions on hardcore cartels
W/201	Canada	Entire document	Provisions on hardcore cartels
W/203	United States	Entire document	Provisions on hardcore cartels
W/208	OECD	Entire document	Provisions on hardcore cartels

Source: WTO (2002b).

Appendix II.C: Contributions to the Working Group on the matter of international cooperation

SYMBOL: (WT/WGTCP/-)	MEMBER/ OTHER SOURCE	PARAGRAPH/ PAGE REF.	MATTERS DISCUSSED
W/48	United States	Whole document	Experience with cooperation especially at the bilateral level
W/116	United States	Whole document	Objectives of cooperation; approaches at bilateral, regional and multilateral levels
W/121	Japan	Pages 1 and 2	International cooperation
W/124	Korea	Whole document	Approaches to cooperation at bilateral, regional and multilateral levels
W/125	Australia	Page 1	Approaches to cooperation and communication among WTO Members
W/126	Zimbabwe on behalf of WTO African Group	Pages 2 and 3	Competition policy and development; role of international cooperation
W/129	European Community and its member States	Pages 9 to 13	Proposal for cooperation on competition policy in context of WTO
W/132	Romania	Pages 1 and 2	Objectives of cooperation and enforcement measures at national and international level
W/140	European Community and its member States	Pages 7 to 10	Key elements of a multilateral framework agreement, and perceived benefits for LDCs
W/143	Trinidad and Tobago	Pages 2 to 6	Role of cooperation at multilateral level; concerns of smaller countries
W/148	Australia	Pages 2 to 5	Australia's experience with cooperation agreements
W/151	Switzerland	Pages 2 to 6	Possible elements of cooperation at the multilateral level
W/152	European Community and its member States	Whole document	Multilateral negotiations; elements of possible future WTO agreement; types of cooperation
W/154	Korea	Page 2, para. 1	Effects of companies' anti-competitive behaviour and governmental measures; WTO as appropriate forum
W/155	Canada	Pages 3 to 7	Cooperation in a multilateral setting
W/156	Japan	Pages 2 to 5	Role of international cooperation; need for a multilateral agreement
W/160	European Community and its member States	Whole document	Elements of a WTO framework agreement
W/161	Romania	Paras. 3 and 5	Anti-competitive practices; progressivity and flexibility in a multilateral framework
W/162	Colombia	Whole document	Anti-competitive practices and cooperation in context of WTO

SYMBOL: (WT/WGTCP/-)	MEMBER/ OTHER SOURCE	PARAGRAPH/ PAGE REF.	MATTERS DISCUSSED
W/165	Czech Republic	Sections B and C	Objective of international cooperation; principles for a multilateral framework
W/167	Japan	Sections II, III and IV	International cooperation and WTO; relation to economic development
W/168	Japan	Whole paper	International cartels and WTO's role
W/169	Uruguay	Pages 3 to 5	Development dimension and S&D in a multilateral framework; importance of comparative law perspective
W/173	Canada and Costa Rica	Page 2, para. 3	Cooperation on competition policy in a bilateral trade agreement
W/174	Canada	Pages 2 to 5	Nature of cooperation at different levels
W/175	European Community and its member States	Whole paper	Elements and benefits of a WTO competition agreement
W/176	Japan	Pages 1 to 3	Impact of anti-competitive practices on developing countries
W/177	Japan	Page1, para. 1	Progressivity and flexibility in a multilateral framework
W/184	European Community and its member States	Whole paper, especially pages 2-5	Modalities for voluntary cooperation in a multilateral framework
W/189	Korea	*Passim*	International cooperation activities
W/192	Secretariat	Whole paper	Modalities for voluntary cooperation
W/195	Japan	Whole paper	Modalities for voluntary cooperation
W/199	Australia	Whole paper	Modalities for voluntary cooperation
W/202	Canada	Whole paper	Modalities for voluntary cooperation
W/204	United States	Whole paper	Modalities for voluntary cooperation
W/205	Thailand	Whole paper	Modalities for voluntary cooperation
W/207	OECD	Whole paper	Modalities for voluntary cooperation

Source: WTO (2002c).

Appendix II.D: Contributions to the Working Group on the matters relating to the progressive reinforcement of competition institutions in developing economies through capacity building

Symbol (WT/WGTCP/ -)	Member/Other source	Section/Paragraph/Page reference (where relevant)
W/17	UNCTAD	Pages 3 - 5
W/18	APEC	Page 4
W/67	United States	Paragraphs 7 and 9
W/116	United States	Section II.B
W/121	Japan	Section III
W/125	Australia	Page 2
W/126	Zimbabwe on behalf of the African Group	Sections III and IV
W/129	European Community and Member States	Sections I.C and II.E
W/130	European Community and Member States	Sections I.C(a) and II
W/137	Mauritius	Whole paper
W/138	Republic of South Africa	Paragraphs 4 and 6
W/139	New Zealand	Paragraphs 6-10 of APEC Principles to Enhance Competition and Regulatory Reform
W/140	European Community and Member States	Sections 2.1, 3.1, 3.2 and 3.3
W/142	United States	Whole paper
W/143	Trinidad and Tobago	Sections III, IV, VII and VIII
W/145	Japan	Section II.D
W/148	Australia	Sections I and IV
W/151	Switzerland	Section C
W/152	European Community and Member States	Pages 3, 4, 6, 7, 10 – 12
W/154	Korea	Paragraph 4(3)
W/155	Canada	Section IV:A
W/156	Japan	Paragraph 2(b)
W/158	Republic of Croatia	Paragraph 4
W/159	Australia	Paragraphs 11-14
W/160	European Community and Member States	Paragraph 4
W/161	Romania	Page 3
W/162	Colombia	Paragraph 4
W/164	United States	Whole paper
W/165	Czech Republic	Section B.5
W/167	Japan	Whole paper
W/175	European Community and Member States	Paragraph 1(c)
W/179	Trinidad and Tobago	Page 2

Source: WTO (2002d).

Appendix II.E: Framework agreements on cooperation on competition law enforcement and related matters with the European Commission or European Communities

Party	Framework
Argentina	Framework Agreement of 1990
Austria	European Economic Area Agreement (EEA) of 1993
Belarus	CIS Agreement of 1995
Brazil	Framework Agreement of 1995
Bulgaria	Europe Agreement of 1991
Canada	Bilateral Cooperation Agreements of 1999 and 2000
Central American republics	Framework Agreement of 1993
Chile	Framework Agreement of 1996
Cyprus	Free Trade Agreement
Estonia	Europe Agreement of 1995
Finland	European Economic Area Agreement (EEA) of 1993
Hungary	Europe Agreement of 1991
Iceland	European Economic Area Agreement (EEA) of 1993
Israel	Euro-Mediterranean Agreements of 1995
Jordan	Euro-Mediterranean Agreements of 1997
Kazakhstan	CIS Agreement of 1995
Kyrgyz Republic	CIS Agreement of 1995
Latvia	Europe Agreement of 1995
Liechtenstein	European Economic Area Agreement (EEA) of 1993
Lithuania	Europe Agreement of 1995
Member countries of ACP	Cotonou Agreement of 2000
Member countries of MERCOSUR	Framework Agreement of 1995
Member countries of the Andean Pact	Framework Agreement of 1993
Moldova	CIS Agreement of 1994
Morocco	Euro-Mediterranean Agreements of 1996
Norway	European Economic Area Agreement (EEA) of 1993
Palestinian Authority	Euro-Mediterranean Agreements of 1997

Party	Framework
Poland	Europe Agreement of 1991
Russia	CIS Agreement of 1994
Slovakia	Europe Agreement of 1995
Slovenia	Europe Agreement of 1995
Sweden	European Economic Area Agreement (EEA) of 1993
Tunisia	Euro-Mediterranean Agreements of 1996
Turkey	Free Trade Agreement of 1961 and 1995
Ukraine	CIS Agreement of 1994
United States	Bilateral Cooperation Agreements of 1991 and 1998

Source: UNCTAD, Experiences gained so far on international cooperation on competition policy issues and the mechanisms used, TD/B/COM.2/CLP/21, 19 April 2002

Appendix II.F: Documented number of cases notified by and to the European Commission during 1991 - 2001

Cases notified	Merger cases		Non-merger cases		Total	
	EC-US	US-EC	EC-US	US-EC	EC-US	US-EC
1991	3	9	2	3	5	12
1992	11	31	15	9	26	40
1993	20	20	24	20	44	40
1994	18	20	11	15	29	35
1995	31	18	11	17	42	35
1996	35	27	13	11	48	38
1997	30	20	12	16	42	36
1998	43	39	9	7	52	46
1999	59	39	11	10	70	49
2000	85	49	19	9	104	58
2001	71	25	13	12	84	37

Cases notified	6.1999-12.1999	1.2000-12.2000	1.2001-12.2001
EC – Canada	4	9	8
Canada – EC	3	10	10

Key : X-Y means notifications by X to Y.

Source: Annual Reports from the European Commission to the European Council and the European Parliament on the application of the Agreement between the European Communities and the Government of United States (and in the relevant years Canada) regarding the application of their competition laws.

Appendix II.G: Documented cases of cooperation in selected merger reviews

	USA	EC	Australia	Canada	Mexico	UK	France	Germany	Italy
USA	-	1, 2, 3, 4, 5, 6, 7, 10, 11, 12, 14, 15, 16, 17, 18	2, 3, 16	2, 3, 12	2	8, 9,	8, 9,	8, 9,	8, 9,
EC	1, 2, 3, 4, 5, 6, 7, 10, 11, 12, 14, 15, 16, 17, 18	-	2, 3, 13, 16	2, 3, 12	2				
Australia	2, 3, 16	2, 3, 13, 16	-	2, 3,	2,				
Canada	2, 3, 12	2, 3, 12	2, 3,	-	2,				
Mexico	2,	2,	2,	2,	-				
UK	8, 9,					-	8, 9,	8, 9,	8, 9,
France	8, 9,					8, 9,	-	8, 9,	8, 9,
Germany	8, 9,					8, 9,	8, 9,	-	8, 9,
Italy	8, 9,					8, 9,	8, 9,	8, 9,	-

1. Shell & Montesdison 1994
2. Guiness & Grand Metropolitan 1997
3. DeBeers & Ashton Mining
4. Boeing & McDonnell Douglas 1997
5. Ciba Geigy & Sandoz 1997
6. WorldCom & MCI & Sprint 1998
7. ABB & Elsag-Bailey 1998
8. Federal-Mogul & TNT 1998
9. IMS-Health Inc & Pharmaceutical Marketing Services Inc 1999
10. MCI & WorldCom 1999
11. Air Liquide & BOC 1999
12. Dow Chemical & Union Carbide 1999
13. Metso & Svedala 2000
14. Boeing & Hughes 2000
15. Time Warner & EMI 2000
16. Alcoa & Reynolds 2000
17. AstraZeneca & Novartis 2000
18. General Electric & Honeywell 2001

Source: Jenny (2002).

Appendix III.A: Cross-country indicators of competition in national markets and of the perception of antitrust policy in 2001

Non-OECD economy	Indicator and Question asked in survey for *Global Competitiveness Report 2001-2002*		
	Quality of Competition in Transportation Sector	**Intensity of Local Competition**	**Effectiveness of Antitrust Policy**
	Is competition in your country's transportation sector sufficient to ensure high quality, infrequent interruptions and low prices? (1=no, 7=yes, equal to world's best)	In most industries, competition in the local market is (1=limited and price-cutting is rare, 7=intense and market leadership changes over time)	Anti-monopoly policy in your country (1=is lax and not effective at promoting competition, 7=effectively promotes competition)
Argentina	4.6	5.1	3.8
Bangladesh	3.0	4.5	2.9
Bolivia	2.8	4.0	2.8
Brazil	4.7	5.2	4.7
Bulgaria	3.4	4.1	3.3
Chile	5.1	5.9	5.1
China	3.6	5.5	3.7
Colombia	4.0	4.7	3.5
Costa Rica	3.5	5.2	3.7
Dominican Republic	3.9	5.0	3.4
Ecuador	2.7	3.9	2.5
Egypt	3.8	5.4	3.4
El Salvador	3.4	5.0	3.1
Guatemala	3.2	4.2	2.5
Honduras	2.5	3.4	2.1
Hong Kong, China	6.3	5.9	4.5
India	3.8	5.6	4.1
Indonesia	3.7	5.2	3.6
Israel	5.0	5.6	5.7
Jamaica	3.9	4.9	3.9
Jordan	4.9	4.7	3.8
Latvia	4.4	5.1	3.8
Lithuania	4.4	5.0	3.4
Malaysia	4.4	4.6	3.2
Mauritius	4.1	4.6	3.6
Nicaragua	2.1	4.2	3.0
Nigeria	3.1	5.2	3.0
Panama	3.1	5.0	4.0
Paraguay	2.7	3.4	3.1
Peru	3.7	5.2	3.8
Philippines	3.9	4.9	3.8
Romania	3.6	3.3	3.7
Russia	3.3	4.2	3.1
Singapore	5.9	5.4	5.1
Slovenia	4.7	5.0	4.2

Non-OECD economy	Indicator and Question asked in survey for *Global Competitiveness Report 2001-2002*		
	Quality of Competition in Transportation Sector	**Intensity of Local Competition**	**Effectiveness of Antitrust Policy**
	Is competition in your country's transportation sector sufficient to ensure high quality, infrequent interruptions and low prices? (1=no, 7=yes, equal to world's best)	In most industries, competition in the local market is (1=limited and price-cutting is rare, 7=intense and market leadership changes over time)	Anti-monopoly policy in your country (1=is lax and not effective at promoting competition, 7=effectively promotes competition)
South Africa	4.2	5.4	4.8
Sri Lanka	3.3	5.1	3.8
Chinese Taipei	5.3	5.3	5.2
Thailand	4.2	5.0	3.9
Trinidad and Tobago	4.9	5.0	3.2
Ukraine	3.7	4.5	3.3
United Kingdom	5.2	6.1	5.8
Uruguay	4.4	4.9	2.8
Venezuela	4.3	4.3	3.8
Viet Nam	2.7	5.3	2.9
Zimbabwe	4.1	3.9	3.3
Correlation coefficient with "Effectiveness of Antitrust Policy"	0.741	0.680	1, by definition
Sample mean Non-OECD economies above	3.9	4.8	3.7
Sample mean OECD economies in sample	5.2	5.6	5.1
Sample mean all economies in survey	4.4	5.1	4.2

Source: World Economic Forum (2002)

Appendix III.A: continued

OECD economy	Indicator and Question asked in survey for Global Competitiveness Report 2001-2002		
	Quality of Competition in Transportation Sector	**Intensity of Local Competition**	**Effectiveness of Antitrust Policy**
	Is competition in your country's transportation sector sufficient to ensure high quality, infrequent interruptions and low prices? (1=no, 7=yes, equal to world's best)	In most industries, competition in the local market is (1=limited and price-cutting is rare, 7=intense and market leadership changes over time)	Anti-monopoly policy in your country (1=is lax and not effective at promoting competition, 7=effectively promotes competition)
Australia	5.6	5.6	5.7
Austria	5.8	5.8	4.9
Belgium	6.0	6.2	5.8
Canada	5.5	5.7	5.6
Czech Republic	5.1	5.5	3.7
Denmark	5.5	5.3	5.7
Estonia	5.0	5.6	4.2
Finland	6.5	6.1	6.6
France	5.5	6.1	5.8
Germany	6.1	6.3	6.2
Greece	3.7	5.2	4.1
Hungary	4.8	5.3	4.8
Iceland	5.1	5.3	5.6
Ireland	3.6	5.6	5.0
Italy	4.5	5.3	5.2
Japan	5.4	5.4	5.0
Korea	5.0	4.9	4.7
Mexico	3.7	5.0	4.0
Netherlands	6.5	6.2	6.2
New Zealand	5.7	5.8	5.5
Norway	5.4	5.5	5.3
Poland	4.7	5.2	4.6
Portugal	4.9	5.3	4.5
Slovak Republic	4.8	5.2	3.8
Spain	5.4	5.7	5.2
Sweden	6.1	5.8	5.5
Switzerland	5.7	5.4	5.0
Turkey	3.9	5.3	4.1
United States	6.5	6.5	6.0
Correlation coefficient with "Effectiveness of Antitrust Policy" indicator	0.783	0.777	1, by definition
Sample mean Non-OECD economies above	3.9	4.8	3.7

OECD economy	Indicator and Question asked in survey for Global Competitiveness Report 2001-2002		
	Quality of Competition in Transportation Sector	**Intensity of Local Competition**	**Effectiveness of Antitrust Policy**
	Is competition in your country's transportation sector sufficient to ensure high quality, infrequent interruptions and low prices? (1=no, 7=yes, equal to world's best)	In most industries, competition in the local market is (1=limited and price-cutting is rare, 7=intense and market leadership changes over time)	Anti-monopoly policy in your country (1=is lax and not effective at promoting competition, 7=effectively promotes competition)
Sample mean OECD economies in sample	5.2	5.6	5.1
Sample mean all economies in survey	4.4	5.1	4.2

Source: World Economic Forum (2002).

Appendix III.B: Descriptions of "significant" enforcement actions brought against cartels and abuse of a dominant position in Brazil, the Czech Republic, Hungary, Mexico, Poland, Russia, and Slovak Republic, as reported by these nations to the OECD in 2000.

Brazil

The text below is taken from the Brazil's year 2000 report to the OECD on its competition enforcement activities. This report can be downloaded from: http://www.oecd.org/EN/document/0,,EN-document-768-nodirectorate-no-11-29574-768,00.html

"1. In Brazil, government action in the antitrust field is conducted by three bodies, making up the Brazilian Antitrust System. These are the Secretariat of Economic Law (SDE), of the Ministry of Justice, the Secretariat of Economic Monitoring (SEAE), of the Ministry of Finance, and the Administrative Council of Economic Defense (CADE), of the Ministry of Justice. SDE has also responsibility for consumer protection which is concurrent to the states under the Constitution. The antitrust authority of SDE is conducted with support of its Economic Defense and Protection Department (DPDE), headed by a Director.

2. SDE has the responsibility of fact finding in cases of economic concentration and in practices allegedly damaging competition. SEAE issues economic opinions, compulsory in economic concentration acts and optional in cases allegedly harmful to competition. CADE is the administrative court that judges the cases brought before it.

…

II.1

Description of significant cases, including those with international implications

Preliminary Investigation nº 08012.000487/00-40

Complainant: National Federation of Motor Vehicle Distributors – FENABRAVE

Defendants: Fiat Automóveis S/A, Volkswagen do Brasil S/A, General Motors do Brasil Ltda, Ford Motor Company Brasil Ltda. and The National Association of Vehicle Manufacturers – ANFAVEA.

3. This is a preliminary investigation brought against the vehicle assemblers Fiat Automóveis S/A, Volkswagen do Brasil Ltda, General Motors do Brasil Ltda, Ford Motor Company Brasil Ltda and ANFAVEA - National Association of Vehicle Manufacturers, based on an accusation by the National Federation of Motor Vehicle Distributors – FENABRAVE. The accusation alleges possible abuse by the manufacturers who, making use of their dominant position in relation to the distribution network, were charging abusive prices in the sale of new vehicles, spare parts, and labor and parts under guarantee. It also challenges abuse in the compulsory transfer of inventory because of the financing system and the requirement that concessionaires sell only original replacement parts, the refusal to enter into contracts with the concessionaire network and the practice of matched selling, in making the delivery of a vehicle outside the initial order conditional on the purchase of difficult-to-sell vehicles and/or parts held in excess quantities.

4. SDE's conclusion, as to charging abusive prices for vehicles and parts, was based on the understanding that there is no relevant antitrust market for each brand of vehicle for this

purpose. There is no sense in the argument that a manufacturer should be considered a monopolist in relation to its concessionaires. In fact, the competitive dynamics of the market is inter-brand. In other words, the manufacturers, in setting their prices and strategies, are looking at the end consumer and not the concessionaires. Hence, it is a contractual matter (a dispute for profits). With regard to the exclusivity in replacement parts, it concluded that there were no indications of infringement, and recognized that the practice benefits consumers, who thus have a guarantee of the quality of the product. Consumers are guaranteed access to information, since the manufacturer has the right to brand its original parts, and there is a wide supply of parts sold by independent retailers, who offer products of an equivalent quality to that of original parts at competitive prices.

5. Hence, no signs of infringement were found in respect of the other allegations brought. The preliminary investigation was terminated and the case was referred to CADE for confirmation.

Administrative Proceeding no. 08000-018277/95-62

Complainant: Secretariat of Economic Law, ex-officio

Defendant: Novo Nordisk Farmacêutica do Brasil Ltda.

6. This is an Administrative Proceeding brought *ex-officio* against the company Novo Nordisk Farmacêutica do Brasil Ltda., for the possible practice of predatory pricing in the case of human and pig insulin in the Brazilian public purchasing market.

7. After the initial proceedings of the case, SDE recognized that the defendant had charged below-cost prices in public bidding tenders. It was observed that the essential requirements for constituting predatory pricing were present. The defendant has the economic power to withstand losses arising from selling at below cost, after eliminating its Brazilian competitor, since the market has high entry barriers and inelastic demand, reinforcing the defendant's power.

8. Believing an infringement to have taken place, the Administrative proceeding was sent to CADE for judgment, pursuant to article 39 of Law No. 8,884/94.

Administrative Proceeding no. 08012.009118/98-26

Complainant: Secretariat of Economic Law, ex-officio

Defendants: Estaleiro Ilha S.A. - EISA

Marítima Petróleo and Engenharia Ltda.

9. This is an Administrative Proceeding brought to investigate an agreement between competitors in a public bidding tender, with anti-competitive effects. The investigation undertaken by SDE observed that the EISA and Marítima companies, both taking part in the auction for refurbishment of the Petrobrás P-X oil platform, entered into an agreement under which the winner of the tender would be obliged pay to the loser a variable amount that could be as high as US$ 1 million as reimbursement of joint or single investments made.

10. In their defense, the defendants claimed that the agreement was legal from the competitive standpoint, since the Marítima company had technical knowledge only of offshore work, while EISA has technical knowledge only of ship building. In the view of the

defendants, competition was not affected since both took part in the contest, and the reimbursement stipulated was a legitimate way of paying for services provided.

11. The examination concluded that there had been no fixing of prices and terms for the provision of the services. However, the stipulated variable indemnification in accordance with the price obtained in the tender process, constituted the conduct of agreeing to advantages in a public tendering process (article 21, VIII), also allowing the companies, the only participants in the process, to limit competition and dominate the relevant market in question (article 20, I and II). Thus, SDE concluded that this constituted an infringement, and sent the Administrative Process to CADE, suggesting: (i) a fine; (ii) banning the defendants from taking part in public tenders for 5 years; (iii) publication of the decision in newspapers; (iv) dispatch of the proceeding to the Public Prosecutor's office for appropriate criminal action."

Czech Republic

In what follows the term "the Office" refers to the Office for the Protection of Competition, which enforces the relevant competition statutes of the Czech Republic. The text below is taken from the Czech Republic's year 2000 report to the OECD on its competition enforcement activities. This report can be downloaded from: http://www.oecd.org/EN/document/0,,EN-document-768-nodirectorate-no-11-29574-768,00.html

"2.2 Agreements distorting competition

[figure in text deleted]

12. The decrease in number of agreements distorting competition was caused by the decrease of the number of franchise agreements in 2000 in comparison with 1999 from 19 administrative procedures to 10 (for illustration – there were 54 franchise agreements in 1998). Approving large number of such agreements, in which there are generally pro-competitive effects prevailing over restrictions of competition, represented excessive demands on administration and therefore the Office elaborated and issued general exemption from the prohibition of agreements distorting competition for specific types of franchise agreements in the form of decree taking effect on 1 March 2000.

Description of significant cases:

Concerted practice of the producers of corrugated paperboard packages

13. In 2000 the Office investigated alleged cartel agreement among six producers of corrugated paperboard packages. During the administrative proceedings the Office proved contacts of the parties to the proceeding and also the intend of all companies involved to increase the prices of paperboard products by 12 – 15 per cent as of 1 April 2000. As a consequence of the concerted practice the uncertainty about the further behaviour of the competitors in relation to the price increases has been eliminated. The Office stated in its first-instance decision that these producers of corrugated paperboard packages breached the article 3 of the Competition Act by concerted practice during negotiations of the increases of prices of their products with customers. The concerted practice has been prohibited by the Office and fines have been imposed in the total amount of 7,800,000 CZK. All the parties to the proceeding lodged an appeal against the decision.

Agreement on price fixing concerning slaughter pigs

14. Board of directors of Agropork co-operative decided on its meeting on declaration of minimal purchase price, which should have been required for 1 kilogram of meat of live slaughter pigs weight by members of the co-operative. Overall market share of the co-operative members represented approximately 30 per cent of nation-wide market in 1999. As a result of this behaviour of the party to the proceedings, price policy unification of co-operative's members – pig producers, appeared on major part of domestic territory. Although meat price increase in forthcoming period could have been presumed, declaration of price by Agropork co-operative represented an impulse, which unilaterally and with immediate effect accelerated the process of price increase, eliminating the chance to gain similar effect gradually by development of market relations and principally on the basis of independent entrepreneur's decision of each supplier – a member of the co-operative. The Office assessed above mentioned behaviour as prohibited decision of entrepreneurs' association, distorting competition and imposed a fine on Agropork.

Resale price maintenance in the area of household appliances

15. The Office initiated an administrative proceeding based on the assessment of documents gained during an inquiry concerned with contract relationships between distributors and sellers of household appliances (washing machines, dryers, refrigerators, dishwashers, microwaves etc.). The company MIELE breached the Competition Act by obliging the retailers in the contracts for the years 1999 and 2000 to sell the MIELE appliances at the set retail prices, which constitutes a prohibited resale price maintenance agreement. The Office prohibited the performance of these provisions of the contracts and imposed a fine on the MIELE company amounting to 200,000 CZK. At the same time the company was ordered to change the contracts with retailers so that the resale price maintenance obligation is eliminated.

Agreement among insurers on pursuit of caution insurance for the case of travel agency bankrupt

16. Nine insurance companies entered into an agreement on provision of insurance for the case of travel agencies bankrupt (representing new type of insurance, provided for by the Act No. 159/1999 Coll. on various business conditions on the field of travel), presented a draft of the agreement to the Office and applied to the Office for an exemption from invalidity of agreement distorting competition. The agreement consisted in establishing free association of insurers with no legal subjectivity – so called pool, established for the purpose of pursuit of obligatory contractual caution insurance for the case of travel agency bankrupt.

17. The Office granted an exemption by its decision for the period of two years. The Office has simultaneously stated, that the insurance companies were obliged to adopt such arrangements, so that after termination of the exemption validity they were able to provide caution insurance for the case of travel agency bankrupt independently.

2.3. Abuse of dominant position

18. Most decisions in cases of abuse of dominant position concerned the abuse by administrative and local monopolies (e.g. four cases in sectors of postal services, telecommunications, gas industry and electricity sector). A fine of total amount of 16,500,000 CZK was imposed in these four cases, representing a significant increase in amount of fines in comparison with 9,500,000 CZK in 1999.

19. Most cases referred to enforcement of inadequate conditions or application of unequal conditions in case of identical or comparable performance against individual market participants.

Description of significant cases:

Refusal to enter into an amendment to the contract on interconnection in telecommunications sector

20. The Office intervened in the case of the behaviour of a dominant operator of integrated telecommunication network – CESKÝ TELECOM, a.s. against its competitor, DATTEL, a.s., which provided telecommunications services via integrated telecommunication network in delimited territory of the Capital of Prague.

21. The Office assessed the behaviour of CESKÝ TELECOM against the second competitor on the market of integrated telecommunication network operation – DATTEL, as an abuse of dominant position. CESKÝ TELECOM refused to enter into an amendment to existing contract on interconnection with above mentioned competitor, which would provide for the division of fees (eventually even appropriate reduction) for interconnection of networks between both operators as well in case of special lowered tariff (tariff Internet 99) when using both networks of TELECOM and DATTEL for transmission of information between customer and provider of access to Internet service. By above mentioned procedure CESKÝ TELECOM sought to exclude the competitor from effective competition in case of special lowered tariff. As a result of the anti-competitive behaviour of the dominant operator, DATTEL was forced to provide its transmission network for Internet calls with lowered tariff to its network for free, without receiving any interconnection fees from CESKÝ TELECOM in cases of such calls. DATTEL was forced to accept such situation, so that its providers of Internet services did not cancel co-operation with it. Thus CESKÝ TELECOM made DATTEL incapable to compete under equal conditions with similar service in "Internet operation" for lowered tariff between the networks. For above mentioned behaviour a fine of 2 million CZK was imposed on CESKÝ TELECOM.

Reduction of brown coal purchases without objectively justifiable reason

22. A dominant electricity producer CEZ dealt with reduced consumption and intake of brown coal for electric power production, resulting from decreased consumption of electric power in the Czech Republic, by gradual reduction of brown coal purchases only from one of long-term suppliers, Mostecká uhelná spolecnost, a.s. (Most coal company) without objectively justifiable reason in 1999, while purchases from other brown coal suppliers were not reduced. This behaviour was assessed by the Office as an abuse of dominant position on relevant market of brown coal for electric power production with prejudice to Mostecká uhelná spolecnost and imposed fine of 7,5 million CZK on CEZ company.

23. The Office's decision was based on the fact, that in extraordinary circumstances (significant reduction of electric power consumption) is abuse of dominant position established by behaviour, by which undertaking with dominant position considerably reduces its purchases not proportionally in relation to one of the suppliers, in situation, when such a behaviour may cause to this supplier a serious competitive disadvantage and endanger its further existence, provided, that the undertaking in dominant position cannot provide any objective reasons for its behaviour.

Unlawful fee collection for gas meter installation

24. There was a finding in the case of regional gas distribution company Jihomoravská plynárenská, a.s. (South Moravian gas company - hereinafter referred to as JMP), that JMP unlawfully collected fee for gas meter installation from consumers, exceeding so its rights set by the Energy Act. The evidence was acquired during the procedure, that JMP unlawfully transferred expenditures related to installation (purchase), connection and montage of gas

meter to customers by above mentioned behaviour, although such an expenditure should bear the supplier in accordance with legal provisions in force.

25. The Office during the proceeding also relied on decision of State Energy Inspection, according to which a gas meter, measuring device in sense of the Energy Act, does not represent a distributing device, hence not giving any opportunity to transfer any expenditures related to connection, installation and maintenance of measuring device to consumers. JMP abused its monopoly position by above described behaviour on the market of gas supplies to the prejudice of consumers and therefore a fine of 2.5 million CZK was imposed on it. JMP contested the Office's decision by an action to the High Court, which it dismissed in February 2001 and confirmed thus the Office's decision."

Hungary

The text below is taken from the Hungary's year 2000 report to the OECD on its competition enforcement activities. This report can be downloaded from: http://www.oecd.org/EN/document/0,,EN-document-768-nodirectorate-no-11-29574-768,00.html

"26. In December 2000 Act No. LVII/1996 on the Prohibition of Unfair and Restrictive Market Practices – the Hungarian Competition Act – was substantially amended by Act No CXXXVIII/2000. The amendments which entered into force in February 2001 were motivated by the four-year experiences collected with the enforcement of the 1996 Competition Act, indicating the necessity for fine-tuning certain provisions of these rules. The incorporation of some principles established by the law enforcement practice into the Competition Act and the wording and rewording of some definitions proved to be rational, moreover, the investigative powers of the Office of Economic Competition (OEC) were also increased.

…

2.2. Abuse of dominant positions

27. The Competition Act prohibits the abusive behaviour of the dominant undertakings. The rules laid down in the Act are harmonised to the EC competition law.

[table deleted]

2.2.1. CableTV sector

28. In 2000 there was an increasing interest by telecommunications companies in the cableTV business, significant rise in concentration could be observed. CableTV is an area of fixed telecommunications services, where due to the fact that investments and fixed costs to create a network are high, the possibility of market entry by competitors is limited and the network operators have dominant position. It is typical of cableTV services that the operator can reach economies of scale only when highly concentrated markets come into existence and large number of subscribers appear, so where a cableTV operator has been active already, the market entry is restricted from an economic point of view. Due to the full liberalisation by 2002 of the telecommunications sector, even the legal barriers to entry will disappear with the termination of exclusivity. By the time of the termination of exclusivity, several undertakings will be likely to possess the infrastructure needed for an entry but considering the local networks, the concession holders, who formerly had exclusive right, will have to face competition only from cableTV networks.

29. In 2000, the Competition Council found a dominant position in each of its 22 proceedings but proved an abuse of it only in 11 cases. The cableTV service agreements generally stipulated unilateral rights for the operators to amend prices.

30. Considering unfair pricing, the Competition Council stated that in the absence of the calculations of an undertaking, the indirect, and direct costs, other cost-factors and the profit reached in the previous year increased by inflation could serve as a basis to determine the fair price. In the cases where the applied prices showed little difference with this price, the Competition Council found no infringement. The Competition Council stated that this difference was not to be determined generally, but all the circumstances have to be taken into consideration on a case by case basis. The Competition Council found that the market was characterised by enormous requirements of technological development, which justify the increase of prices, so no infringements by the application of excessively high prices could be established in any of the cases.

2.2.2. Fixed telecommunications services

31. Among the abusive practice cases the practice of Matav Rt was regarded as the most serious abuse in 2000. Matav (the national telecommunications service provider having dominant position) provided international fax and telephone voice transmissions on the 'Internet Protocol-based network' exclusively to service providers who had concessions. Defining the relevant market the Competition Council stated that the service provided by the defendant cannot be substituted by any other telecommunications service, in particular by the public voice telephony. It was also established, that the position of Matav in the field of public voice telephony made it possible that, by offering more favourable fees in the long run, the undertaking expanded its dominant position to the relating market, obtaining this way independence to a large extent of its competitors' behaviours.

2.2.3. The Philips case

32. Bearing in mind the interest of the final consumers the Competition Council made its condemning decision against Philips Magyarország Kft, because the undertaking refused to supply original Philips spare-parts for service stations others than those within its own service network.

Refusal by Philips Magyarország Kft to supply components outside the brand service network (Vj-8/2000)

33. *Philips Kft (hereinafter the Kft) is specialised in supplying imported and domestically produced Philips products. As a supplier, the Kft is obliged by an amended Decree to ensure the supply of components necessary for the repair and to supply accessories of imported products. The Kft set up a service and component-supply network to ensure the fulfilment of the obligation laid down by the Decree. The Kft refused to supply components outside the network since it was not as profitable as its other activities. Therefore consumers had to turn to the Kft's competitors for Philips components. These competitors had very small shares on the market and none of them could provide the full scale of the components.*

34. The Competition Council stated that the Kft had a dominant position on the market of components used for small Philips household machines and entertainment electronic devices. The Kft's practice went against the consumers' interest, as their only possibility for repairing was to turn to the brand services or to buy components from the competitors, whose prices were significantly higher then those of the Kft. The practice constituted an abuse of the dominant position. The consequence of the decision is that the Kf may not refuse the service

in the future but it may determine conditions for supplying Philips components outside the network.

2.2.4. Assessment of free services

35. Local governments frequently publish information in "official" newspapers. In 1998 in one of its decisions the Competition Council stated, that these papers were to be regarded as market products and as such they fell under the scope of the Competition Act. Based on a complaint the presumption was made, that the Mayor's Office of the town of Érd strives to drive out the only other newspaper having to some extent similar character published in the town from the market of local newspaper publishing by abusing its dominant position. In the course of the proceedings it was extremely important to properly define the relevant market of the free newspaper, in order to establish whether a municipality-published newspaper is competitor or not for another local newspaper. Having considered that in addition to official news of the municipality and information attracting public interest the local government's newspaper published advertisements, articles, comments, notes, advice on how to grow plants and flowers, horoscopes, cross-word puzzles, etc. the Competition Council took the view, that this newspaper may be deemed as competitor of the other local newspaper. The dominance was stated, since the issued number of copies of the newspaper published by the Mayor's Office was far higher than that of the other newspaper, and, in addition to this, the subsidy provided for it from the budget of the local government made possible the avoidance of insolvency in the long run. The abuse was manifested by the fact, that the free nature of the newspaper based on the gradually increasing subsidisation of the Mayor's Office and not on the effectiveness of this newspaper. Consequently, the Competition Council stated the infringement, prohibited the continuation of the practice and a symbolic fine was imposed.

36. The decision of the Competition Council was fulfilled in a peculiar way. The municipality maintained the high number of copies issued, as well as the free of charge character of the newspaper, but it limited the scope of the content to municipality news. In this way the Mayor's Office left the relevant market and the newspaper became 'official journal' of the local government. In its post-investigation the OEC found that the magazine-type character of the newspaper was terminated, so the free of charge publication of the newspaper cannot be challenged any more. The decision has not become effective, since the municipality requested the revision of the decision from the court."

Mexico

The text below is taken from the Mexico's year 2000 report to the OECD on its competition enforcement activities. This report can be downloaded from: http://www.oecd.org/EN/document/0,,EN-document-768-nodirectorate-no-11-29574-768,00.html

"1. Action against anticompetitive practices, including agreements and abuses of dominant positions

…

b) Description of significant cases, including those with international implications

i) Anticompetitive practices

Collusion in public auctions

Grupo Sutinmex vs Internacional Farmacéutica and others

37. The Federal Competition Commission (FCC) initiated an investigation regarding collusion in public auctions of medical equipment. The companies involved were *Grupo Sutinmex, Internacional Farmacéutica, Serral, Le Mare Internacional de México and Matur.* During the investigation the public auctions summoned by The General Hospital of Mexico and the Institute for Social Security for State Workers were analysed. In both cases, a behaviour pattern among the bidders could be set.

38. One of the most important pieces of evidence considered in the investigation, was the tight difference among the bids, which differed in all cases only by few pesos. During the investigation, the companies involved confessed to the existence of collusive practices. Therefore, the FCC decided to impose a fine to each of the implicated companies and to issue a warning to refrain from acting contrary to the FLEC in the future.

Price collusion in the beer industry

39. The investigation in the beer industry in the state of Quintana Roo involved an agreement between two beer distributors, *Cervecería Cuauhtémoc Moctezuma de Quintana Roo* and *Cervezas del Caribe,* and several regional associations involved in alcoholic beverages commercialisation: *Unión de Comerciantes de Cervezas, Vinos y Licores de Quintana Roo, Sección Especializada de Venta de Cervezas, Vinos y Licores de la Canaco Servytur de Cancún* (liquor commerce chamber) and *Sindicato de Propietarios de Establecimientos Comerciales, Empleados, Transportes y Similares de Quintana Roo*.

40. The agreement established minimum sale prices for different beer presentations, a mechanism for the adjustment of such prices and the commitment not to trespass such limits when offering discounts. The FCC resolved that all the implicated parties were responsible for collusive practices consisting in price fixing, ordered its immediate suspension and imposed fines. The beer distributors pleaded guilty and consented to immediately suspend the practices, thus obtaining reduced sanctions.

ii) Abuse of dominance

Tied sales and other practices

Avantel and Alestra vs Telmex (long distance 800 numbers)

41. Long distance operators, Avantel, S.A. and Alestra S. de R.L., filed complaints against Telmex with alleged practices in breach of the [Federal Law of Economic Competition] FLEC. As a result of the investigation the FCC found Telmex responsible for anticompetitive practices derived from charging public telephone users $0.50 per minute for long distance calls when using non geographic 800 numbers and for requiring the use of Telmex's pre-paid cards (Ladatel) in order to access those numbers.

42. 800 paid numbers are used to render paid telephone services, whereby the receptor agent absorbs the cost of the call. Traditionally, commercial firms or social service institutions offer 800 paid numbers to provide their customers with a free communication in order to encourage them to use their information services. These numbers may be accessed from private or public telephones. In the latter case, Telmex applied its competitors' clients a $0.50 per minute access fee, although users calling to 800 numbers offered by Telmex were not subject to such charge.

43. The investigation covered the following lines:

44. Tied sales. The FCC found that the charge imposed by Telmex represented an entry barrier since access to 800 national service through public telephones was only available by using Telmex's prepaid Ladatel card.

45. Refusal to deal. In 1997 Avantel requested Telmex to enter into a contract which would enable it to absorb the $0.50 charge for 800 number calls originated from public telephones, in order to free its users from this payment. Telmex refused the contract without justification, although it had already subscribed such agreements with foreign providers of 800 numbers.

46. In 1999, following a decision issued by the Federal Telecommunications Commission (Cofetel), Telmex signed contracts with six firms setting technical and operation conditions regarding access to calls originating from public telephones by means of 800 numbers.

47. Discrimination. By denying direct charge to the plaintiffs in the access to its public network, Telmex created exclusive advantages in its own favour since it did offer itself this service to operate its own 800 numbers. Foreign firms offering 800 numbers also operated under a scheme where the final user is not charged for the use of Telmex's public telephone network.

48. Thus, uneven sales conditions were established for agents providing equal services from public telephones.

49. Demand decrease. The object and effect of the behaviour challenged was to offset competition faced by Telmex through its main competitors, Alestra and Avantel. These practices resulted in losses derived from useless advertising and because the plaintiffs were forced to withdraw their prepaid cards from the market, since they would not meet demand given that their acquisition required unavoidably the purchase of Telmex Ladatel card too.

50. The FCC's decision included a sanction amounting to the highest applicable fine for each of the practices incurred in. On deciding this amount, consideration was taken of the harm posed on competition the international effect on firms and consumers and of Telmex's market share.

Boycott

51. *Harinera Seis Hermanos* (HSH) filed a complaint charging *Cargill de México* and a civil association of agriculture product suppliers, *Asociación de Proveedores de Productos Agropecuarios* (APPAMEX), with blocking its access to imported wheat supplies.

52. The FCC enquiry provided evidence of a boycott, leaded by Cargill against HSH which could have the aim or effect of displacing the latter from the market. Following HSH cancellation of a wheat purchase contract, Cargill required the payment of costs incurred, which HSH refused to reimburse. By providing information to APPAMEX's members, regarding HSH's refusal to pay Cargill's cancellation costs, HSH was placed in disadvantage before its providers.

53. The relevant market defined was the commercialisation of hard wheat imported from the US and Canada, including the varieties Hard Red Winter, Hard Red Spring and Canadian Western Red Spring. These varieties differ from Mexican wheat in their high protein content.

54. Although no evidence was found regarding APPAMEX members refusal to sell HSH imported wheat, the FCC considered the intent to displace HSH from the market as an infringement to the FLEC. Pressure was exerted at the request of Cargill through the

association, which was found to hold substantial market power, mainly on the basis of its market share. The FCC therefore concluded that both, Cargill and APPARMEX, were responsible for implementing a boycott and imposed fines on them. In addition it ordered APPAMEX to modify its regulations given that they fostered the commission of relative monopolistic practices.

55. The FCC's decision was challenged through the filing of an appeal for review. However the final judgement confirmed the original decision in all its terms.

iii) Interstate trade barriers

56. *Grupo Industrial Lala* and *Lala Guadalajara* filed a complaint charging the government of the State of Sinaloa with imposing unfair entry restrictions to pasteurised milk. The defendant argued that the restrictions imposed constituted administrative control measures having health and statistical goals.

57. However, the FCC found that this administrative control implicated an authorisation to introduce products into Sinaloa. The enquiry of the legal framework revealed that sanitary standards regarding milk processing, transportation and storage are jurisdiction of the Health Secretary. Any additional state restrictions constitute an over-regulation, violate the Constitution and deter interstate trade.

58. Based on the above elements, the FCC recommended Sinaloa's government to eliminate the authorisation regime imposed on milk entering the State."

Poland

In what follows the acronym OCCP refers to the Office for Competition and Consumer Protection, which enforces the relevant competition statutes of the Poland. The text below is taken from the Poland's year 2000 report to the OECD on its competition enforcement activities. This report can be downloaded from: http://www.oecd.org/EN/document/0,,EN-document-768-nodirectorate-no-11-29574-768,00.html

"1. Action against anticompetitive practices, including agreements and abuses of dominant position

…

b) Description of significant cases

Municipal services

59. Anticompetitive practices consisted in:

refusal to make available waste dumps to the companies engaged in waste disposal,

limiting funeral parlours in providing their services by the entities administering the cemeteries.

Energy sector

60. The majority of the anticompetitive practices of the power utilities included abuses of dominant position on the local market of energy supply. The power utilities were imposing onerous contract conditions giving them unjustified profits by way of signing separate

contracts with every customer regardless of the fact that in most cases few customers were using one and the same connection. Thus, the power utility was charging several standing charges for one connection. Another example is charging the fee for energy supply on the basis of energy measurement taken outside the building and thus, charging customers not for the actual units used.

Transport

61. Anticompetitive practice consisted in refusal by the local authority - the owner of local bus stops, to use these bus stops by the intending carriers and thus, preventing them from obtaining permits to carry economic activity of passenger road transport. The aim of this refusal was to maintain the monopolistic position of the passenger transport company, in which this local authority held 100% of shares.

Telecommunications

62. The OCCP carried several proceeding relating to imposition by TP S.A. (telecom) onerous contractual terms and abuse of its dominant position on the telecommunication market."

Russia

In the following text the expression "MAP Russia" refers to Russian Ministry for Antimonopoly Policy, which is responsible for enforcing the competition statutes of the Russian Federation. The text below is taken from the Russian Federation's year 2000 report to the OECD on its competition enforcement activities. This report can be downloaded from: http://www.oecd.org/EN/document/0,,EN-document-768-nodirectorate-no-11-29574-768,00.html

"Actions directed at prevention of anti-competition practices, including abuse of dominant position and collusions.

Abuse of dominant position is a rather wide-spread infringement in the Russian goods markets, which is witnessed by annual growth of claims made by economic entities. In 2000 the number of claims on abuse of dominant position by economic entities increased by 19%, and made almost half of all the claims received by anti-monopoly bodies (in 1999-46%). Anti-monopoly bodies enhanced their activity on ascertainment and prevention of abuse of dominant position, the number of proceedings instituted on this kind of infringement increased more than 35% in 2000. In 2000 MAP Russia and its Regional Offices investigated about 2500 facts (claims together with the initiative of an anti-monopoly body) on signs of violation of Article 5 of the Law "On Competition…"(abuse of dominant position in a goods market by an economic entity). Violations were proved in 1073 cases. 43% of violations were eliminated voluntarily without bringing actions, 728 cases (57%) were brought to action. One sixth of decisions of the anti-monopoly bodies was appealed in the court, about a quarter of all appealed decisions were declared invalid. It should be mentioned that the proving of the violations related to the abuse of the dominant position is one of the most difficult in the Anti-monopoly legislation. As a rule in such processes powerful structures with the strong legal staff stand against the anti-monopoly bodies.

Most of applications on the abuse of dominant position is related to the electro- and heat energy markets, gas, railway services, telecommunications services. The number of applications in this sphere is growing from year to year. Their share in the general amount of applications on Article 5 made in 2000,1999,1998 is, accordingly, 61%, 60%, 56 %. It serves as the evidence of the non-decreasing level of monopolistic activity of economic entities in

the Russian goods markets, especially in those of natural monopolies. The most widespread violations remain the same – imposing of disadvantageous terms of contract, unjustified refuse to conclude contract, as well as violation of the order of the price-setting prescribed by the law, monopolistic pricing.

MAP Russia has investigated the actions of a group of affiliated persons, viz "Gasprom" firm, "Astrachangasprom" firm, "Orengburggasprom" firm and (herein after the Group) towards the Interregional Association of phosphorus fertilizer producers "Phosagro". The group unjustifiedly refused "Phosagro" to conclude a contract on delivery of liquid sulphur though the delivery was possible, thereby hindering the access to the market. MAP Russia Commission ascertained the domination of the Group in the sphere of transportation services of liquid sulphur in special tanks (the share of the Group is more than 65% of the general quantity of tanks in Russia). The group transferred to the rent of the "Ortofert" firm almost the whole fleet of tanks, so that the possibility to sublease tanks and to conclude contracts on sulphur transportation was eliminated. This way the Group forced the consumers of liquid sulphur to conclude contracts on sale of liquid sulphur with the "Ortofert" firm and it outraged the rights of liquid sulphur consumers. Following the results of the investigation, MAP Russia Commission issued the prescription to the Group to stop the violation of point 1 Article 5 of the Law "On Competition…" and demanded the Group to stop its practice of conclusion of exclusive contracts on liquid sulphur delivery and agreements on the lease of the specialized tanks for liquid sulphur transportation with certain economic entities, including those of the Group, and as well as the Group to create no obstacles in making direct agreements of liquid sulphur delivery to the economic entities, which use this raw material for their production process. The further investigation showed that the Group had fulfilled all the prescriptions.

Rostov Regional Office following MAP Russia request examined the application of "The Oil Company "Rosneft" organization and "Rosneft-Stavropolneftegas" organization on the actions of the SeveroKavkasskaya Railway (SKRW), which demanded of these companies payment for transportation of raw oil in the interior communication as for the export transportation and stopped in a unilateral order the dispatch of railway tanks. Due to the actions of the Severokavkasskaya railway, companies suffered material damage about 5 mln. USD. The investigation performed by Rostov Regional Office showed that the SKRW outraged interests of economic entities, violated anti-monopoly legislation. The Commission of the Regional Office issued a prescription to the SCRW on the elimination of the violation within two days after its receipt. The prescription was fulfilled on the date fixed. This example is typical.

The growth of expenditures on both the hydro-carbon raw material and other expenditures for the production of liquefied hydro-carbon gases (LHG) led to the decrease of demand for their delivery to the Russian markets for household needs at state regulated prices as compared with the delivery of the liquefied gas for production needs and for export, where is free pricing. Besides, the LHG markets are monopolized. In 2000 MAP Russia together with the Regional Offices examined all the LHG market participants on the subject of observance regarding the regulations of the antimonopoly legislation. It was ascertained that the "SG-trans" enterprise was abusing its monopolistic position when delivering the LGH to the consumers, took both the payment for the rendered services of the liquefied gases transportation and the railway tax, took from the consumers the additional expenditures (about 250 Rub/t from the organization) for gas delivery that increased the sale price of the liquefied gas to the population. The administrative proceedings were instituted against "SG-trans" on the evidences of violation of p.1 Art.5 of the Law "On Competition…" in the part of fixing monopolistically high prices and violation of the rules of pricing. In the process of the investigation, the cost of the additional organizing expenditures was reduced to 141Rub. 57 kop. Per tonne for transportation of LHG and the administrative proceedings were stopped.

The practice of ascertainment and of suppression of agreements (concerted practices) of economic entities, which restrict competition (Article 6 of the Law "On Competition…"), as compared with 1999 reduced for two thirds. In 2000 45 facts of violation of this article were examined, in 18 cases violations were proved, through the given facts 12 administrative proceedings were instituted. The increased quantity of applications on facts of this article violation is noticeable, though, according to the results of examination, almost two thirds of application cases were rejected. It should be mentioned that most of the applications, as it was in 1999, contained complaints on the Anti-competition agreements of economic entities related to fixing maintaining prices, tariffs, discounts, additional payments, extra-charge in the sphere of natural monopolies. The complications of substantiation of anti-monopoly agreements (collusions), ambiguousness of definitions, insufficiently close cooperation with the law enforcement agencies are the main reasons of low-scale efforts on application of the provisions of this article.

In May, 1999 the Southern Siberian Regional Office of MAP Russia administrative proceedings against 76 owners of petrol stations (PS) of Krasnoyarsk by the signs of violation of article 6 of the Law "On Competition…" on the fact of simultaneous evelling up oil-products prices. The single prices increase in the PS let classify the actions of their owners as monopolistic collusion aimed at establishing and maintaining single prices bringing excess-profit…The Commission of the Regional Office stated that the action of 25 economic entities competing in the market of the oil-products retail trade in Krasnoyarsk and having the joint share in the market of the retail trade of petrol marks AI-76, 80, AI-92, 93 exceeding 35%, was aimed at establishing and maintaining higher prices for the pointed petrol marks. The fact of coordination of actions on fixing and maintaining the prices is proved by simultaneity of the price rise and maintenance of their level in the period under review. The Commission issued a prescription to transfer the profit received with violation of the Anti-monopoly legislation into the federal budget by the participants of the agreement. Three economic entities appealed this decision in the Arbitration Court, in two cases the decision of the Regional Office was declared legally valid. The prescription of the Regional Office was fulfilled, the profit made thanks to the infringement of the antimonopoly legislation were transferred to the federal budget.

In 2000 the litigation was instituted in the Court of Appeal on the base of the lawsuit brought by a number of oil products sellers against the Regional Office (Saint Petersburg and Leningradskaya Oblast). The Regional Office had issued the prescription on both cessation of violation of article 6 of the Law "On Competition…" and transfer of the profit made to the federal budget, which had been issued in accordance with the case on anti-competitive price agreement proceeded against the above-mentioned economic entities in 1999. The Court deemed the actions of the Regional Office lawful. Thus the illegally made profits were requisitioned and used for the needs of the State budget.

Slovak Republic

In what follows the term "the Office" refers to the Antimonopoly Office of the Slovak Republic, which enforces the relevant competition statutes of the Slovak Republic. The text below is taken from the Slovak Republic's year 2000 report to the OECD on its competition enforcement activities. This report can be downloaded from: http://www.oecd.org/EN/document/0,,EN-document-768-nodirectorate-no-11-29574-768,00.html

"Description of a significant case - agreements restricting competition

MATADOR a. s. Púchov and exclusive dealer GMZ co. s.r.o. Tvrdošín

63. The Office, acting on its own initiative of 11 administrative proceedings in the matter of contracts restricting competition signed and fulfilled by the entrepreneur Matador a. s. Púchov (hereafter referred to as "Matador") and 11 „exclusive dealers". These dealers were included in this group by the entrepreneur Matador on the basis of their fulfilling regulated criteria. In light of the fact that these activities are factually connected together and that one of the participants of the contract restricting competition in each action is the same, i.e. the entrepreneur Matador, as an example we consider the description of the proceeding in the matter of a prohibited contract restricting competition between the entrepreneur Matador and GMZ Pneuservis. s.r.o. Tvrdošín (hereafter referred to as "GMZ Tvrdošín").

64. The basis of the examination of a contract restricting competition was apurchase contract signed between the entrepreneurs Matador and GMZ Tvrdošín which included the obligation of the seller (Matador) to supply the purchaser (GMZ Tvrdošín) with automobile tires, tubes pads and retreads according to order, which formed its inseparable part, from the stores of the Matador sales network, and the obligation of the purchaser to take over the goods and to pay a contracted price. The subject of the purchase contract was, in its Annex No. 1 (hereafter referred to as „annex") widened by the ordering of all goods (automobile tires, tubes and pads of all brands) which are the subject of further sale, exclusively from the seller i.e. from the entrepreneur Matador.

65. In the wording of the signed purchase agreement, the entrepreneur GMZ Tvrdošín appeared on the market as the purchaser and retailer of automobile tires, tubes and pads of all brands. The second contracting party, the entrepreneur Matador, did not appear on the market only as seller of products of its own brand but also as the seller of purchased, possibly imported, ranges of automobile tires and tubes, which the purchaser could secure from other sources for more favourable supply and price conditions. The exclusive seller, entrepreneur GMZ Tvrdošín, accepted the obligation in the form of exclusive purchase from the entrepreneur Matador of all brands of automobile tires, tubes and pads, from which indirectly follows a ban on making business with competing entrepreneurs selling similar or equivalent ranges of goods. This ban was reinforced by other conditions contained in the annex to the purchase contract, in which it was established that GMZ Tvrdošín order from the respective selling entrepreneur aminimum annual order in an amount of SKK 10,000,000 (228 990 EUR) without VAT and, in the case of not fulfilling the agreed conditions of exclusive purchase, the obligation to pay a contracted penalty in the amount of 50 percent of its turnover for the preceding three months. Under the stated sanction regulations, the purchaser was not given the possibility to decide on the purchase of similar products from another seller at more advantageous conditions.

66. The Office documented that this is a contract restricting competition with negative results on the market because it does not fulfil the four legally established conditions. The Office arrived at this conclusion on the basis of the statements of the contract participants themselves which directly or indirectly confirmed that the contract deformed the distribution of automobile tires and tubes on the SR market in light of the inability of the entrepreneur Matador to secure a larger range of imported brands in the required supply period or for the promised price conditions. The second participant in the contract, the entrepreneur Matador, confirmed in discussions its worsened financial situation, which was connected to the inflexibility in providing imported brand goods to the exclusive seller. Therefore, Matador authorised GMZ Tvrdošín for the purchase of goods which it did not have at its disposition in its stores from other importers in the Slovak Republic.

67. This subject contract restricting competition was advantageous only for the partners to the contract. For the entrepreneur Matador it ensured turnover on the required level and for

the exclusive seller financial advantages in the form of a 3 percent discount, in which the consumer did not share, as unequivocally follows from the goal of this contract restricting competition.

68. The first-degree body evaluated the negative impact of this contract on the participants in the relevant market on two levels:

1. on consumers

2. negative impact on other distributors and dealers

69. The first-degree body considered the contract and its contents in Annex No. 1 as a documented restricted competition contract in the sense of the provision of § 3, paragraph 2, letter e) of the Act on Protection of Competition since it conditioned the signing of the purchase contract on the acceptance of the additional obligations contained in the Annex to the purchase contract, which by their nature do not relate in the subject contract even to business customs.

70. The second-degree body, on the basis of a presented remonstrance by the Matador entrepreneur confirmed the accuracy and fullness shown throughout the proceedings. It performed only a change to the legal assessment of the case, implemented by a change in the arbitration part of the decision in the sense that this is a contract on exclusive purchase of goods which is, in the sense of § 3, paragraph 1 of the Act, prohibited and, according to § 3, paragraph 3 of the Act on Protection of Competition, invalid.

71. For infringement on the ban on signing contracts restricting competition, a fine in the amount of SKK 700,000 (16 029 EUR) was imposed on the entrepreneur Matador. There was no fine imposed on the second participant in the contract, GMZ Tvrdošín on account of its willingness to provide evidence documents to the Office as well as its proven attempts to change the conditions of the contract restricting competition by oral and written remarks to the entrepreneur Matador.

72. The entrepreneur Matador, within the legal period, presented an appeal to the Supreme Court of the SR on examination of the second-degree decision. The Supreme Court of the SR, after examining the challenged decision came to the conclusion that the challenged decision is in harmony with the law, and therefore refused the appeal of the entrepreneur Matador.

73. In the same way, there were a further 10 contracts restricting competition signed between the entrepreneur Matador and individual exclusive dealers. The entrepreneur Matador was, by decisions in these administrative proceedings given a fine in the amount of SKK 7,200,000 (164 873 EUR), and the exclusive dealers a total sum of SKK 270,000 (6 183 EUR).

Description of a significant case - abuse of a dominant position

Stredoslovenské energetické závody š.p. (Central Slovak Energy Plants š. p. Žilina)

74. The Office on 29.3.2000, after receiving a request from the entrepreneur ACER NOBA co-operative Machulince, began administrative proceedings in the matter of abuse of dominant position in the relevant market according to 7, paragraph B, letter b) of the Act on Protection of Competition with regard to the entrepreneur Stredoslovenské energetické závody š.p. Žilina (hereafter referred to as "SSE š. p. Žilina"), which unlawfully interrupted

the supply of electric energy to buildings in Nová Bana, operated by the entrepreneur ACER NOBA co-operative Machulince.

75. To consider the restriction of the relevant market, the Office considered three basic determining viewpoints – factual, geographic and time. The factual market was stipulated the electric energy supply market. As regards the geographic consideration, the relevant market restricted by the distribution net of the entrepreneur SSE š. p. Žilina was the territory of central Slovakia. The time-relevant market was set as 1.12.1999, during which the anti-competitive practice of interrupting the supply of electricity by the entrepreneur SSE š. p. Žilina was exercised.

76. The entrepreneur SSE š. p. Žilina, RZ Martin interrupted the supply of electricity for the reason of non-presentation of the agreement of the owner of the real estate by the ACER NOBA co-operative, which was confirmed in a letter sent to the entrepreneur ACER NOBA, and this despite the fact that aBusiness Contract was signed on 29.10.1999 between the entrepreneurial bodies.

77. In the course of the proceedings, the Office discovered and showed that the entrepreneur SSE š. p. Žilina, in its position of a natural monopoly, made use of its economic power with regard to the entrepreneur ACER NOBA co-operative Machulince in such a way that on 1.12.1999 it interrupted the supply of electricity for a period of 45 minutes to the buildings of the ACER NOBA co-operative despite the fact that on 29.10.1999 there was signed a valid Business Contract on the Supply of Electricity, whose contractual conditions were fulfilled on the part of the entrepreneur ACER NOBA co-operative Machulince. The actions of the entrepreneur SSE š. p. Žilina, consisting of a restriction of the supply of electricity, had a negative impact on business competition for the reason that the entrepreneur SSE š. p. Gillian had adominant position on the relevant market since electric energy is a goods which the entrepreneur ACER NOBA was not able to replace by other corresponding, interchangeable or comparative goods and therefore was not exposed to substantial competition and could abuse its dominant market position due to its economic power.

78. The Office ruled according to § 7, paragraph 5, letter b) of the Act on Competition Protection that the actions of the entrepreneur SSE š. p. Žilina, consisting of an interruption of the supply of electric energy to the entrepreneur ACER NOBA co-operative Machulince, had the nature of abuse of its dominant position on the relevant market of electric energy supply, and imposed a fine in the amount of SKK 200,000 (4 580 EUR) on the entrepreneur SSE š. p. Žilina."

Appendix III.C: Further information on six major international cartels prosecuted in the 1990s

Product	Period of cartel	Global sales and losses to purchasers (2000 US dollars) Principal source: Connor (2001)	Effect on developing country purchasers (2000 US dollars) Principal Source: Levenstein and Suslow (2001).	Number of firms found to be in the cartel and country of origin	Producers and purchasers industry structure
Graphite Electrodes	1992-97	Global Sales: US$5-7 billion. Price increases from roughly $2000 per metric ton to $3200 - $3500 (60-70%) in various markets (OECD, 2000, p.13)	Imports: US$33.263 billion Overcharge: US$5544 million (assuming a 20% price increase, Levenstein and Suslow, 2001); US$ 12474 million (assuming a 60% price increase, OECD 2000)	Prosecution by US authorities involved seven firms, from the US, Germany, and Japan. Total fines exceeded US$ 314 million. Canada convicted of price-fixing the two major suppliers, a US firm and a German firm, inflicting fines of US$ 23.5 million. The European Commission fined eight firms a total of Euro 218.8 million. Korea Fair Trade Commission fined six firms a total of US$ 8.5 million.	This product is sold in a highly concentrated world market. The two major firms, one US and one German, dominate with a combined market share of roughly two-thirds. Both firms manufacture electrodes in many countries (including such developing countries as Brazil, Mexico, South Africa, Russia and Poland) and sell throughout the world. Japanese producers hold a considerable world market share, and there are also a number of smaller producers, mainly in India and China. Graphite electrodes are used by electric arc furnaces (EAF), which are used to manufacture a third of world steel production. EAF steel production is spread around the whole globe.

Product	Period of cartel	Global sales and losses to purchasers (2000 US dollars) Principal source: Connor (2001)	Effect on developing country purchasers (2000 US dollars) Principal Source: Levenstein and Suslow (2001).	Number of firms found to be in the cartel and country of origin	Producers and purchasers industry structure
Vitamins	1989-99 (varies with type of vitamin)	Global Sales: US$ 34.161 billion. Total excess payments to consumers, with a twenty percent overcharge, equal US$7679 millions	Global Sales: US$ 3652 million. Average price mark-ups in the US market were between 35% and 75 %, see Connor (2001, p.330). Overcharge: US$ 1217 millions (assuming a 50% price increase due to cartelization.)	Cartel participants (US, Japanese, Swiss, German, Dutch, Belgian and French firms) were prosecuted and heavily fined by the US Department of Justice, the European Commission, the Canadian and the Australian competition authorities. Antitrust officials in Brazil, Japan and Mexico are also reported to be investigating. Total fines: almost US$ 1billion by the US and Canadian authorities, Euro 855 millions by the EC.	Three European and three Japanese companies, who were the major cartel members, together controlled about 80% of the global vitamin market. In most cases, major producers have plants both in the US and Europe, and many have production facilities in Asia as well. The exact mix of major competitors varies by vitamin type. Japanese players hold a significant share in the vitamin B6 and vitamin C market. China has become a significant competitor in recent years in the vitamin C market, and also produces vitamins B1, B6, and E.
Citric Acid	1991-95	Global Sales: US$ 3,950 millions. Total losses to consumers: US$750 million. Connor (2001).	Imports: US$ 1691 million. Overcharge to purchasers: US$ 283 million (assuming a 20%, price increase, Levenstein and Suslow, 2001, p 28)	US authorities found the following cartel members: three US firms, two Swiss firms, and one French company. Total US fines: US$ 114 million. European Commission authorities punished the following cartel members: two US firms, two Swiss firms, and one Dutch company. Total fines: Euro 135.22 millions	Highly concentrated world markets in the hands of several major producers located in the US, Europe, and China. Developing countries, such as Czech Republic, Mexico, Turkey, Indonesia, have small market shares. Chinese producers currently hold about 15% of US market share. The industry trend is towards larger firms and greater concentration. Large costumers, such as beverage companies, account for the bulk of citric acid sales.

Product	Period of cartel	Global sales and losses to purchasers (2000 US dollars) Principal source: Connor (2001)	Effect on developing country purchasers (2000 US dollars) Principal Source: Levenstein and Suslow (2001).	Number of firms found to be in the cartel and country of origin	Producers and purchasers industry structure
Seamless Steel Tubes	1990-95		Imports: US$ 1422 million. Overcharges to purchasers: US$ 129 million (assuming a 10% price increase due to cartelization, OECD 2000.)	The EC convicted four European and four Japanese producers of bid-rigging on seamless steel tubes and line pipes between 1990 and 1995. Total fines: Euro 99 millions	Three large alliances dominate world trade. These alliances include developing country steel producers. The largest alliance is controlled by an Italian-Argentine corporation. US producers produce mostly for the North American market. Other leading producers are located in Japan, Germany, France, Italy, Argentina, Mexico, Brazil, and Sweden. Chinese producers have increased exports in recent years, but are not yet at a technological level to compete efficiently in world markets. Consolidation in distribution is mirrored by consolidation among consumers. The number of distinct buyers has decreased and their average size increased over the 1990s due to exit by many independent oil and gas producers
Lysine	1992-95	Global sales: US$ 1,660 million. Total losses to consumers: US$363 million.		Five producers (one US, two Japanese and two Korean) were convicted in the United States and the European Community of price fixing. (Connor 2000, p.176) Total fines: US$ 93.4 million by the American authorities, and Euro 110 million by their European counterparts.	The cartel members controlled over 97% of global capacity during the years the cartel operated. As of 2000 the five producers convicted of having participated in the conspiracy (one US, two Japanese and one Korean) still held 95% of global capacity in the industry. There were some instances of entry by non-cartel members in the 1990s, essentially relatively small producers from Hungary, Slovakia, and South Africa. China seems to be the fastest growing location for new joint ventures in lysine manufacturing. Several joint ventures began operating in China as early as 1993, and by 2000, the productive capacity of these Chinese operations is estimated at about 13% of world capacity. Most of the new entrants began production after the lysine cartel broke up in 1995.

Product	Period of cartel	Global sales and losses to purchasers (2000 US dollars) Principal source: Connor (2001)	Effect on developing country purchasers (2000 US dollars) Principal Source: Levenstein and Suslow (2001).	Number of firms found to be in the cartel and country of origin	Producers and purchasers industry structure
Bromine	1995-98		Imports: US$ 89 million. Overcharge to consumers: US$ 15 million (assuming a 20% price increase, see Levenstein and Suslow, 2001, p.18)	American authorities fined one Israeli firm for price fixing and one US firm received amnesty in the case. The conspiracy is currently under investigation by the European Commission. Total fines to date: US$ 7 million.	Two US and one Israeli companies supply more than 80% of the $800 million world bromine market. Consumer electronics producers make up the largest segment of bromine purchasers.

Notes:

1. Total Losses to Consumers = Consumer Overcharge (transfer of income from buyers to the sellers, which is equal, in equilibrium, to the sum of the lost revenues of direct and indirect buyers and the effective reduction in purchasing power by the ultimate consumers (Connor 2001, page 552) + Dead Weight Loss (indirect consequence of higher prices, equal to the value of lost sales due to quantity restrictions – which in turn is a consequence of raised prices by the cartel)

2. * see Connor (2001), table 19.5.

3. For alternative estimates of the trade affected by some of these cartels see World Bank (2003b).

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V. ALPHABETICAL INDEX OF ABBREVIATIONS

ABB	Asea Brown Boveri Ltd.
ACP	The African, Caribbean and Pacific Group of States
AICI	American International Contractors Incorporated
ANFAVEA	National Association of Vehicle Manufacturers, Brazil
APEC	Asia Pacific Economic Cooperation
APPAMEX	Asociación de Proveedores de Productos Agropecuarios
BOC	British Oxygen Corporation
CADE	Administrative Council of Economic Defense, Ministry of Justice, Brazil
CIS	Commonwealth of Independent States
CUTS	Consumer Unity & Trust Society, India
CZK	Czech koruna
EAF	Electric arc furnaces
EC	European Community or European Communities
EE	Eastern Europe
EEA	European Economic Area
EISA	Estaleiro Ilha S.A.
EMI	EMI Group PLC
EU	European Union
EUR	Euro
FEABRAVE	National Federation of Motor Vehicle Distributors, Brazil
FCC	Federal Competition Commission, Mexico
FDI	Foreign direct investment
FLEC	Federal Law of Economic Competition, Mexico
GM	General Motors
HSH	Harinera Seis Hermanos
HUF	Hungarian forint
IBM	International Business Machines Corporation
ICPAC	International Competition Policy Advisory Committee
ICN	International Competition Network
IMF	International Monetary Fund
IPA	Information-Technology Promotion Agency, Japan
JECC	Japan Electronic Computer Company, Ltd.
JMP	Jihomoravská plynárenská, a.s.

JV	Joint venture
Kft	Philips Kft
KFTC	Korea Fair Trade Commission
KRW	Korean won
LHG	Liquefied hydro-carbon gases
LSI	Large Scale Integration
M&A	Mergers and Acquisitions
MAP Russia	Ministry for Antitrust Policy, Russia
MCI	MCI Corporation
MERCOSUR	Common Market of the South
MITI	Ministry for International Trade and Industry, Japan
MPT	Ministry of Posts and Telecommunications, Japan
MXN	Mexican peso
NEC	NEC Corporation
NHK	Japan Broadcasting Corporation
NTT	NTT Communications Corporation
OCCP	Office for Competition and Consumer Protection, Poland
OEC	Office of Economic Competition, Hungary
OECD	Organisation for Economic Cooperation and Development
OPEC	Organization of the Petroleum Exporting Countries
PLN	Polish zloty
PVC	Polyvinyl chloride
PS	Petrol stations
R&D	Research and development
RUB	Russian roubles
S&D	Special and Differential
SDE	Secretariat of Economic Law, Ministry of Justice, Brazil
SEAE	Secretariat of Economic Monitoring, Ministry of Finance, Brazil
SKK	Slovak crowns
SKRW	SeveroKavkasskaya Railway
TNT	TNT Holdings BV
TRIPS	Agreement on Trade Related Aspects of Intellectual Property Rights
UCAR	UCAR International Incorporated
UN	United Nations
UNCTAD	United Nations Conference on Trade and Development
US or USA	United States of America

USAID	United States Agency for International Development
USD	United States dollars
VCR	Videocassette recorder
VLSI	Very Large Scale Integration
WGTCP	Working Group on the Interaction between Trade and Competition Policy
WTO	World Trade Organization
WWII	Second World War
¥	Japanese yen

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