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COMPETITION POLICIES
FOR INDUSTRIALIZING
COUNTRIES

CLAUDIO R. FRISCHTAK

with

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Industry & Energy Department

POLICY, PLANNING, AND RESEARCH
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FOR INDUSTRIALIZING ECONOMIES**

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Industry and Energy Department

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Executive summary

This paper examines the nature and impact of barriers to competition in industrializing countries. Included are 26 low- and middle-income economies with a manufacturing sector producing at least \$2 billion in value added in 1985. These countries account for more than 80 percent of Bank lending in industry, trade, and finance. The paper argues that policy-generated barriers instituted by regulatory, promotional, and trade regimes have been a major constraint to efficient industrial development and suggests that the primary objective of competition policy should be to remove those barriers through coordinated policy reforms. In a neutral competition policy regime, the major policy-generated impediments to competition and resource mobility would be phased out.

A growing body of case studies from developed and industrializing countries indicates that competition is the prime motivation for managers to cut waste, improve technical parameters of production, and allocate resources efficiently. In addition, subsector evidence shows that competition is a compelling force for industrial restructuring as firms shed outdated operations, introduce new product lines, and search for new markets. A competitive environment is thus the most effective way to stimulate modernization and structural change. The benefits of competition do not depend on the nature of asset ownership; public as well as private enterprises

that face competition allocate and use resources more efficiently.

Competition is an effective force for modernization in the presence of an entrepreneurial class engaged in industrial activity and able to mobilize and deploy resources in response to market opportunities or threats. Firms must also have access to industrial endowments such as skilled workers, physical infrastructure, supplier networks, and industrial maintenance and service facilities.

Can competition be used as an effective policy tool by the least developed countries? A competitive environment is a necessary condition for countries to follow an efficient development path but it is not sufficient. At the very least it is essential to have a class of traders willing to shift to industrial activities. The least developed countries need to build up their industrial endowments, markets, and institutions before they can use competition to the fullest advantage as a tool of industrial policy.

This is not to say that countries must first accumulate certain endowments and then introduce competition. To provide an effective basis for industrial development, measures that stimulate competition need to be undertaken while countries build up their industrial endowments. Removing entry and exit barriers through regulatory reform to ensure competition and resource mobility in domestic markets, for example, does not depend on the size of the industrial sector or the stage of industrial development. While this

paper deals mainly with those developing countries that have a sizable manufacturing sector, its conclusions are not limited to these countries.

A competitive environment is one in which efficiency in resource allocation and use is stimulated by domestic competition, import competition between domestic producers and foreign exporters, and export rivalry between domestic exporters and their foreign rivals in international markets. The emphasis on these three forms of competition has varied between countries and over time. But the experience of successful industrializing countries suggests that efficient supply responses depend on subjecting firms to the dynamism and pressures of competition in both domestic and international markets.

In the early stages of industrial development, policymakers relied on regulatory controls, promotional instruments, and trade restrictions to spur industrial development. These tools were used to create capacity in specific sectors and promote the growth of infant firms, and were perceived by policymakers as justified to help an incipient entrepreneurial class, facing relatively thin markets with scarce capital resources. Capacity licensing was used to regulate entry and balance supply and demand. Investment incentives and trade barriers raised profitability and attracted resources to the industrial sector. Procurement policies made use of public sector demand to support local producers. Cost-plus pricing policies accommodated inefficient firms. Restrictive labor legislation, complex bankruptcy procedures, and financial bailouts discouraged exit in an attempt to conserve capital and protect workers from unemployment.

In some countries, as the industrial sector matured, governments progressively removed protective barriers and increased domestic firms' exposure to competitive forces. But in most countries, barriers to entry and exit solidified. Capacity licensing and other regulations concerning the establishment and expansion of firms—in countries as diverse as India and Mexico—effectively deterred the growth of capacity and the entry of new firms. Investment incentives and procurement policies, in Argentina, for example, prevented entry by skewing the rules in favor of dominant producers. Price controls in Ghana and Brazil pre-empted competition and helped less efficient firms survive. Complex bankruptcy rules have saddled the economies of Portugal, Hungary, and Pakistan, and slowed the mobility of capital and other resources.

Tariff and nontariff restrictions act as additional brakes to structural change. In Indonesia, Argentina, and a host of other countries, protection was most extensive in sectors that had benefited originally but still continued to be sheltered. The infant industry rationale was turned upside down; relief from import competition continued to be provided for mature and declining subsectors, while new activities were penalized. Although in recent years many countries (Mexico, Thailand, Turkey, Argentina, Morocco, Nigeria, Indonesia and others) have lowered effective protection on manufactured goods, trade restrictions still are pervasive in most developing (and developed) countries.

In sheltered environments domestic market profitability is three to five times that of international markets. This difference in profitability constitutes the major disincentive for domestic firms to compete in export markets. Other barriers for domestic firms to penetrate export markets are the difficulty of obtaining imports at international prices, the unavailability of pre- and postshipment export finance and credit insurance, and the absence of support from government and private sector agencies in the acquisition of technological, management, and marketing know-how. These barriers affect a large number of industrializing economies in spite of export development efforts

Developing countries should use competition as a powerful tool of industrial policy. It is an instrument that might have been unavailable in the early stages of industrial development, but it is more effective than government controls and incentive systems in the presence of functioning markets and a dynamic entrepreneurial class. More fundamentally, competition is required if countries are to move beyond the initial stages of industrialization. As Japan and other successful East Asian countries have shown, stimulating domestic producers to compete at home and in international markets is the key to helping firms mature technologically and managerially. Developing countries that intend to use competition as a policy tool require a more open and benign international trading environment. These issues have been addressed in a study by Finger (1989) and therefore are not explicitly included in this paper.

Competition in domestic markets calls for the removal of policy-generated barriers to entry and exit to elicit investment growth and output expansion. In India, for example, regulatory re-

form has relaxed major barriers to domestic competition and the response has been significant. Since the late 1970s the rate of growth of manufacturing output has nearly doubled. In the last two to three years, as the pace of reform has quickened, manufacturing output growth has further accelerated. Reform has not only led to significant entry and output expansion, but a squeeze in company profits as firms cut prices, streamlined operations, and improved marketing efforts. There has been increased pressure on firms to exit, which has yet to be allowed on a timely basis. Lower profits from domestic sales have also reduced the country's historically strong anti-export bias. Combined with more effective export promotion policies, the relaxation in barriers to entry and expansion has resulted in the rapid growth of manufactured exports.

India's experience draws attention to two crucial aspects of competition policy. First, entry and exit policies must be coordinated, as new entries increase the degree of actual competition and put pressure on less efficient firms to exit. Second, domestic competition policies must be accompanied by policies that enable domestic firms to compete in international markets. Squeezing profits in domestic markets is not sufficient to ensure that producers will become significant exporters.

The experience of successful East Asian economies is instructive in this regard. A long-term, stable, and credible commitment to achieving very high rates of export growth was critical for firms to sustain their position in export markets. A number of key institutional mechanisms facilitated exporting. These provided free-trade status for all activities that generated export value added and ensured automatic access to credit for all exporters. The effectiveness of these instruments not only was based on their innovative designs but also depended as much on the principles that guided their use: automaticity, expediency, simplification and unification of procedures, decentralization of tasks, and equal treatment for all activities that generated export value. The importance of these policies is that the rivalry in international markets leads domestic firms to achieve technological and organizational maturity much earlier than if they remained in a protected environment.

Import competition is essential, particularly when technology calls for a scale of production typical of natural monopolies or when one dominant local producer is protected by high

entry barriers. Imports should be free of all restrictions other than a moderate tariff, nontariff barriers should be removed, and import procedures should be transparent and not subject to discretionary changes.

It is not essential that regulatory reform precede export development efforts and trade liberalization. In Indonesia successful export policies have been the stimulus for phased trade liberalization and reform of domestic regulations. The reforms were bunched in a relatively short period and led to substantial domestic and foreign investment response. The point is that trade, export development, and regulatory reforms need to be launched either jointly or within a year or two of each other to be most effective.

Trade reform should be coordinated with regulatory policy reform. Rapid import liberalization when economic agents are constrained in their flexibility to allocate resources might lead to a limited or negative supply response, large social costs, and a reversal of reforms. Regulatory changes should be introduced with import liberalization to give producers the flexibility and incentive to enter promising activities, expand profitable operations, shift product lines, or exit from shrinking or stagnant markets. In Mexico entry barriers have made significant restructuring unlikely despite decisive trade liberalization; in Turkey the constraints on exit slowed the trade adjustment.

When natural and strategic barriers to competition are significant, the removal of policy-generated barriers might not be enough to stimulate an efficient supply response. Policymakers need to provide a structure of incentives and an institutional setting to stimulate entry and competition in industries where dominant incumbents need to be challenged to improve their performance. These policies should help entrants overcome large natural barriers—such as limited access to fixed facilities, and lack of technical and marketing information. Mergers should be discouraged if there is a significant probability that the new company would have the market power to deter entry, engage in unfair trade practices, and keep prices above competitive levels. The legal and regulatory framework should define the limit of acceptable market conduct and curb anticompetitive behavior. Policies also might be introduced to facilitate exit, if lack of information or coordination block or slow firm downsizing.

Several arguments favor a temporary pro-

export bias in competition policy. First, natural barriers to competition are higher in export markets than in domestic markets. Not only are transportation costs greater but marketing know-how is more complex and expensive. Second, in most industrializing countries that have experienced an anti-export regime for long periods, managers tend to be inward-oriented. Third, export markets involve a higher risk than domestic markets. To the extent that these barriers are temporary, there is little justification for permanent export incentives. Instead, governments may aid producers by providing compensatory tax and financial export incentives for a limited period. After three to five years, a neutral structure of incentives would be sufficient.

Because markets may fail to attract sufficient resources to industries that command the largest profits or the greatest externalities, policymakers have occasionally resorted to targeting individual firms or whole subsectors. Certain firms were targeted on the assumption that size and financial power are necessary to achieve international competitiveness. Yet European experience shows that economies of size achieved through targeting might be more than offset by the lax management practices that sheltered mar-

kets allow. Where targeting firms have been successful, it has been associated with substantial rivalry in domestic markets and a strong commitment by the targeted firms to compete internationally.

Sectoral targeting is equally difficult. Such targeting should neither preclude domestic competition nor block import competition, and it should be linked to an explicit and credible commitment that it is temporary. In sum, protection and promotion should be moderate and relatively brief, should not discriminate against entrants, and should be evaluated against the performance of domestic firms in international markets.

Instead of targeting incumbents or specific sectors, governments might focus on human, technological, and institutional resources. Policy and institutional interventions would be targeted functionally to alleviate market imperfections that broadly constrain the emergence of competitive industries. The development of financial markets and instruments, support for the acquisition of technological capabilities, and a strong commitment to education and training would constitute some of the dimensions of such policies.

Barriers to competition

A growing body of case studies from developed and industrializing countries indicates that competition is the prime motivation for managers to cut waste, improve technical parameters of production, and allocate resources efficiently. Sub-sector evidence shows in addition that competition is a compelling force for firms to restructure outdated operations, introduce new product lines, and search for new markets. Assuring a competitive environment is thus the most effective means to stimulate modernization and structural change in industrializing economies.¹ It should be stressed that the need for and benefits of competition are not dependent on the nature of asset ownership; public as well as private enterprises that face competition allocate and use resources more efficiently.²

Competition should not be regarded, however, as a sufficient condition for industrial development. It is a most effective force for modernizing the industrial sector in the presence of an entrepreneurial class actively engaged in industrial activity, and able to mobilize resources in response to market opportunities or threats. Firms must also have access to industrial endowments such as skilled human resources, basic physical infrastructure, supplier networks, industrial maintenance, and services.

Can competition be used as an effective policy tool by the least developed countries? The presence of a competitive environment is a necessary condition for countries to follow an effi-

cient development path, but it is not sufficient. At the very least countries require a class of traders willing to shift their economic focus to industrial activities. The least developed countries need to build their industrial endowments, markets, and institutions before they can use competition as a tool of industrial policy. This is not to say that countries must accumulate certain endowments before introducing competition. Measures that stimulate competition should be undertaken while countries build their industrial base. Removing entry and exit barriers through regulatory reform to ensure domestic competition and resource mobility, for example, does not depend on the size of the industrial sector or the stage of industrial development. Thus while this paper deals mainly with those 26 developing countries that have a sizable manufacturing sector (at least \$2 billion in manufacturing value added in 1985)³, its conclusions are not limited to this group of countries. These countries represent more than 80 percent of Bank lending in industry, trade, and finance.⁴ Most of them have attempted to spur industrial development by regulating, promoting, protecting or creating capacity in specific activities. In many cases policies designed initially to provide temporary incubation for infant industries hardened into policies protecting mature industries from both domestic and international competition. As a result competitive markets did not develop. In the early stages of industrial development, competition was not perceived as critical to development goals. Moreover, regulatory controls, promotional instru-

ments, and trade restrictions had a significant impact in stimulating the entry of new firms. They raised the profitability of the industrial sector and attracted resources. In some countries, as the industrial sector matured, governments increased domestic firms' exposure to competitive forces. In most, however, protective barriers solidified, stifling new economic participants and preventing the emergence of new areas of comparative advantage. Efficiency losses grew, overshadowing the short-term gains achieved through a growing industrial base.

Barriers to domestic competition

Most markets in industrializing countries can be described as imperfectly competitive. Firms face significant barriers to entry and exit. Among natural barriers, the most important are economies of scale and financial market imperfections.⁵ They are reflected in the high levels of market concentration found in industrializing countries (table 1).

The impact of concentration on efficiency depends on the extent to which incumbents are subject to competition. High levels of concentration generally increase the probability of collusive and other forms of noncompetitive behavior. But the main issue is not concentration; it is

the shelter provided by high policy-generated barriers to competition. The protected and stable nature of those markets results in substantial economic losses. Rents (monopoly profits) can be extracted because incumbents are protected from the challenge of entrants (and imports). The examples that follow illustrate the regulatory and incentive barriers most commonly found in industrializing countries.

INVESTMENT INCENTIVES. Capital market imperfections in developing countries are important natural barriers to entry. In developed countries certain market segments (for venture capital finance, say) properly discount for this higher risk, but in many industrializing countries financial markets are shallower and newcomers have relatively less access to credit. Governments have attempted to help producers overcome these barriers by lowering investment costs through fiscal and credit incentives. But these incentives (and related sectoral programs) have generated heavy fiscal burdens while undermining competition and structural change. Often the systems have been biased toward intensive use of capital, favored incumbents in highly concentrated industries, and helped foster oligopolistic practices. Regional investment incentives generally have not had a significant influence on resource allocation, and often have resulted in serious economic efficiency and fiscal losses.

In Argentina investment incentives have been a major barrier to competition and structural change. Through the incentive system, established firms obtained unit cost advantages of up to 41 percent, which helped them consolidate their market position. Entrants, competing for scarce fiscal resources, have been at a disadvantage relative to well-informed incumbents that had already demonstrated the ability to fulfill domestic demand requirements.⁶ The system's bias in favor of capital-intensive techniques and low value-added activities in which Argentina had no obvious comparative advantage, and its emphasis on mature and declining sectors, deterred investment in new industrial segments and slowed industrial restructuring.⁷

Credit incentives for industry, which at an early stage promoted entry, have often turned into instruments that reinforced the position of large incumbents. In many industrializing countries these firms absorb a significant proportion of development bank lending, which generally is the sole or major source of term finance to indus-

Table 1 Market concentration in selected countries

Country	Year	Average of four-firm concentration ratios	Number of industries ^a
Argentina	1984	43	172
Brazil	1980	51	119
Chile	1979	50	41
India	1984	46 ^b	n.a.
Indonesia	1985	56	119
Mexico	1980	48	186
Pakistan	1985	68 ^c	n.a.
Turkey	1976	67	125
United States	1972	40	323

a. To compare concentration ratios between countries requires using statistics with the same level of disaggregation (the same number of industries). Despite similar four-firm concentration ratios, the degree of industrial concentration in Argentina, for example, appears to be much larger than in the United States as the Argentine data refer to 172 industries and the United States data to 323 industries.

b. Weighted by value of output for 1983/84.

c. Average for the spinning, weaving, polyester yarn, polyester fiber, fertilizers, automotive products, bicycles, and tractors.

Sources: For Argentina, Chile, Mexico, and Turkey: World Bank 1988a. For Brazil: Willmore 1988. For Indonesia, India, and Pakistan: World Bank data.

try. In Mexico 70 percent of all development banks' preferred credit to industry in 1987 was allocated to 10 firms. In Brazil in that same year, 25 firms commanded 50 percent of credit approvals of the National Economic and Social Development Bank system. Such high levels of concentration of scarce investment resources have made entry more difficult and deterred competition.

Regulatory controls often have functioned as anticompetitive devices. Possibly the most pervasive regulatory instrument in industrializing countries has been capacity licensing and other market reservation policies. Through such licensing many governments have attempted to control the total amount of domestic capacity as well as the allocation of capacity. Licensing has been used to promote priority subsectors, decentralize plant location to less developed regions, and conserve resources by balancing domestic supply and demand. Yet it also has precluded potential competition by regulating entry, encouraging entry-deterrence by incumbents, and reducing actual competition by constraining supply.

Capacity licensing in India used to function as a significant—often binding—barrier to entry and growth outside the small-scale sector. Incumbents filed applications for additional capacity to preempt entry or expansion of competitors; firms accumulated licenses to ensure a pipeline of potential projects. With licensed capacity fixed according to projections of domestic demand, unused licenses resulted in demand exceeding supply. Incumbent producers were able to sell high-cost, poor quality goods in markets protected from domestic and import competition. Licenses were approved at the expense of producers that would have used them for capacity expansion. In Pakistan licensing has been used to avoid excess capacity and reduce market concentration. But it has also protected incumbents while deterring growth, preventing producers from reaching a minimum efficient scale of production.⁸

Regulatory constraints often go beyond capacity licensing. In Mexico extensive bureaucratic requirements significantly raise the cost of doing business. Lengthy procedures are needed not only to open or expand industrial firm capacity but to import inputs, price goods, or close an enterprise. These procedures cause particular problems for small- and medium-size producers, since large firms have specialized departments to deal with these requirements. While these trans-

action costs are difficult to measure, dealing with these regulations could account for 5 percent of a firm's operating costs, and opening a business could require up to 420 man-days.

Public sector procurement can constitute a major barrier to competition due to opaque rules governing the procurement process; unequal information among producers; preferential treatment for domestic suppliers; collusion among preferred suppliers. In Argentina bidding and evaluation procedures were not sufficiently transparent to ensure that the most competitive bidder was awarded the contract. The system stimulated collusion, agreements on market sharing, price rigging, and other noncompetitive strategies. Most firms considered profitability on government contracts superior to what otherwise prevailed in the domestic market. Since the early 1960s the government has given preference to national suppliers, including monopolies, providing these firms with an additional shield from external competition.

EXIT BARRIERS. In many industrializing countries exit barriers were established to protect workers from unemployment and to conserve scarce capital. Such restrictions encourage the operation of unprofitable firms while deterring entry and expansion by others. Unable to exit, entrepreneurs become more cautious in their investment plans, foregoing opportunities that—in a more flexible regime—would lead to the expansion of capacity. Investors resist shifting resources to areas characterized by rapid demand changes and short product cycles. Exit barriers often block the introduction of new or better technologies that necessitate eliminating product lines and scrapping older plants. Constraints on labor mobility, asset transfer, financial restructuring, and bankruptcy make firms more risk-averse in undertaking new activities and block a more decisive approach to resource reallocation. Managers choose to expand operations by incremental steps, even if such an approach is less economical.

In postwar Hungary bankruptcy was considered incompatible with indivisible social property and guaranteed full employment. Failing state enterprises were merged rather than dissolved or restructured. This pattern continued even after a legal framework was introduced for dissolving state enterprises over a decade ago. A key reason was that bankruptcy threatened organizations representing local social and politi-

cal vested interests. Moreover, financial instruments and markets to conduct orderly bankruptcy or financial restructuring did not exist. As a result soft mergers rather than bankruptcy or real corporate restructuring continued, increasing concentration. In 1980 the government began to break up large state enterprises. In 1984 two industrial enterprises were liquidated. But de facto barriers to bankruptcy remain; only recently has the government closed loopholes and introduced a social safety net to facilitate effective restructuring.

In Portugal the government has rarely allowed the exit of firms with more than 100 employees. Instead, overdue loans are refinanced on a concessional basis by public sector banks whose financial position has been weakened by a high share of nonperforming corporate loans. Bankruptcy is avoided due to its legal complexity and cost. Portuguese banks have faced a soft budget constraint due to the government's willingness to step in and bail out failing firms. Similar circumstances preclude exit in many other industrializing countries. In Pakistan efforts to restructure or close firms have been hampered by banking regulations and practices limiting write-offs and loan loss provisions. In cotton textiles, for instance, 89 of 223 mills were closed in 1986. While many have been closed for years and would require the complete replacement of plant and equipment to resume production, they have not been liquidated, and liabilities continue to grow. These plants have prevented new entrants as the perceived existence of excess capacity led to regulatory restrictions.

PRICING POLICIES. Price and distribution controls, used in many developing countries as a means of allocating goods on a priority basis and minimizing the impact of short-term supply shortfalls, have had negative effects on competition, growth, and modernization. Controlled prices tend to induce explicit and tacit collusion among firms, both when price controls are in effect and after they are eliminated. Moreover, controlled prices often do not ensure adequate profits, reducing entry incentives and resources for modernization and technological change.

Ghana has used price controls since 1962 to limit scarcity rents to sellers of products, to fight inflation, and to keep down the price of key commodities (Meier and Steel 1989, Chapter 7.5). By 1970, for example, nearly 6,000 prices for 700

groups of products were controlled. Price controls proved inefficient in an environment of scarcity and rapid inflation. Prices were set by adding a fixed margin to costs, reducing the producers' incentive to compete by reducing costs.⁹ As part of a reform program introduced in April 1983, the government gradually lifted price controls. The inflationary impact was limited because market prices already reflected scarcities. Inflation fell from 122 percent in 1983 to 40 percent in 1984, hoarding was eliminated, scarcity rents were shifted from distributors to producers, and new investments were encouraged.

To put these country examples in perspective, it should be stressed that the historical focus of development policy has been to promote industrial growth. In this sense regulatory controls and promotional systems should not be measured by the yardstick of ensuring mobility and competition. Nonetheless, by decreasing the risk and bolstering profits in the industrial sector, such policies initially promoted entry and competition. Over time, however, entry-inducing rents were appropriated by those who had become incumbents. This was partly a function of growing disparities in information available to incumbents and entrants. New entrants generally lacked knowledge of promotional and regulatory instruments as well as access to the officials who managed these discretionary regulations and incentives. In turn, government operatives not only had more information on established producers, but often assumed a protective attitude toward incumbents—after attracting and nurturing them with implicit guarantees of minimum profitability.

This bias was also a reflection of certain criteria adopted by many regulatory and promotional agencies for screening industrial projects. Fiscal and financial incentives were often denied to entrants on the presumption that demand growth could be balanced by incumbents, and that excess capacity by new entrants would destabilize markets and waste resources. The very shelter provided to incumbents accommodated inefficiency and led to slow productivity growth, prolonging the need for protection and promotion, and further tilting the regime in the incumbents' favor. In these countries, the increasingly anticompetitive bias of domestic policy regimes and mounting losses have offset whatever early industrial development gains were made.

Barriers to import competition

Protection against import penetration is the other major policy-generated barrier to competition.¹⁰ Although numerous countries (Mexico, Thailand, Turkey, Argentina, Morocco, Nigeria, Indonesia, and others) have lowered protection on manufactured goods as part of their efforts at structural reform, trade restrictions still are pervasive in most developing and developed countries (table 2).¹¹

Table 2 Import protection among selected countries

Year	Unweighted average tariff rate ^a	Nontariff barriers ^b		
		Percentage of imports	Percentage of production	
Argentina	1988	27.7	n.a.	18.0
Brazil	1988	37.4	n.a.	41.0
Colombia	1988	56.9	n.a.	84.6
India	1988	118.0 ^c		75.0 ^d
Indonesia	1988	23.0 ^c	25.0 ^e	34.8 ^e
Madagascar	1988	46.0	0.0 ^f	0.0
Mexico	1988	4.3 ^g	n.a.	23.2
Morocco	1986	35.1	14.0	n.a.
Nigeria	1988	32.0		
Pakistan	1988	102.0	31.0	n.a.
Philippines	1988	28.0		
Turkey	1988	53.7 ^c	6.0	n.a.
Venezuela	1987	34.1	n.a.	48.0
Yugoslavia	1987	12.0	29.9 ^h	36.0 ⁱ
EEC ^j	1987	4.2 ^k	29.8	n.a.
Japan	1987	3.5 ^k	36.9	n.a.
United States	1987	3.9 ^k	16.8	n.a.

a. Tariffs include surcharges. In view of the widespread practice of granting exemptions from duties, effective tariffs are generally lower than the official rates reported here.

b. Nontariff barriers include quantitative restrictions (including prohibitions, quotas and restrictive licensing), minimum pricing, antidumping and countervailing duties, tariff quotas, and state or importing agency monopoly of imports.

c. Average for all products.

d. Percent of domestic value added.

e. Figures are as of December 1987; Expected to drop to 15 percent for import coverage and 30 percent for production coverage in 1988.

f. All import restrictions were removed in January 1988.

g. The production weighted average is 11 percent.

h. A further 57 percent is covered by a quota which is semiautomatic depending upon foreign exchange availability.

i. Expected to fall to 31 percent in 1988.

j. Based on external trade.

k. These rates are trade weighted most-favored-nation (MFN) average tariffs for all products. Although the average rates appear low, they are high in some sectors. Tariffs on clothing and footwear, for example, are respectively 19.9 percent and 22.5 percent in the EEC, 15.0 percent and 14.2 percent in Japan and 20.3 percent and 11.7 percent in the United States.

Sources: World Bank data; Laird and Yeats 1987, 1988.

Import restrictions not only constitute a barrier to competition, but also have acted as a brake to structural change in developing economies. Protection often has been most extensive in sectors which have benefited from it for the longest periods. The infant industry argument was in this sense turned upside down: relief from import competition was provided for the more mature and declining subsectors, while new or innovative activities were penalized, discouraging producers from entering areas of emerging comparative advantage. Indonesia's tire and downstream aluminum industries illustrate this point. The first tire producer began manufacturing 50 years ago, and the second 30 years later. Their survival is assured by an import ban that keeps domestic prices 20 to 50 percent above international levels. In industries using aluminum, the level of protection is directly correlated with the age of the firm. Certainly, neither the level of protection in the tire industry nor the structure in aluminum metal fabrication can be justified on infant industry grounds.¹²

Although import restrictions generate severe resource-allocation distortions, trade reform should not be approached as a magical catalyst. The intensity of import competition and the reaction of producers to a more open trade regime depend first on the credibility of trade policy reform. Before producers adjust their technological and market behavior, they need to perceive that the government is bound by an irrevocable commitment (for instance, GATT) or has a reputation for implementing announced policies systematically.

The effectiveness of trade reform also can be limited through "tariff privatization." Most buyers do not buy directly from foreign producers but from local distributors—often linked to dominant domestic firms. In many cases the wholesale importer is the dominant local producer. Thus even if imports relieve supply constraints, the impact of import competition may be diminished by the specific organizational arrangements that link foreign sellers and domestic buyers.¹³ Argentina's dominant steel producer, Somisa, has also been the dominant importer for many years. It has been able to shield itself from import competition and reap substantial rents by controlling the volume of imported steel.¹⁴ Similar problems have been observed in other countries, such as Hungary (see World Bank 1986, Chapter III) and Chile (see de Melo and Urata

1986), where collusion between domestic producers and foreign trading companies served as a powerful barrier against competing imports.

Import penetration is not necessarily or immediately translated into an effective competitive force for an additional reason. The organization of foreign trading, domestic wholesale and retailing can form an invisible barrier to import competition. Nontradeable services—marketing, product repair and maintenance, product adaptation, and other engineering services—are critical in enabling imports to penetrate domestic markets. Difficulties in entering Japanese markets, for example, often have been associated with various regulations and organizational barriers against foreign entry or foreign business partnerships in the commercial sector.

Finally, import liberalization may open up new possibilities for international suppliers to behave strategically, reducing developing country benefits. Dumping and overpricing are two forms of behavior that have attracted attention. Both are generally associated with negative welfare effects that at least partially offset the gains from a more open trade environment.

Barriers to export rivalry

Developing an internationally competitive product typically requires firms to improve quality and design, investing capital in export-oriented production lines. Firms must incur irretrievable (or sunk) costs to identify suitable markets and set up distribution channels. Many of these activities are resource-intensive and subject to increasing returns to scale. Small and medium-sized “cash-strapped” producers are constrained in competing successfully with larger, better financed and more cost-efficient foreign competitors.

Lack of institutional support also can be a strong barrier for firms competing in export markets. An export supply response is unlikely in the absence of institutional arrangements which fill market gaps, and place domestic exporters on at least an equal footing with their foreign competitors. These arrangements involve timely access to imports at international prices, access to pre- and postshipment export finance and credit insurance, and support by government and private sector agencies in acquiring technological, management and marketing know-how. Support should be available to direct exporters and indirect manufacturing exporters, and trading

firms. (For discussion of some of these policies, see Rhee 1985.)

Firms not only need resources and a supportive institutional environment to become committed exporters; they also must be willing to put their efforts into an activity that is riskier and has longer lead times. Ultimately it requires a real commitment to export.¹⁵ To make this commitment, domestic firms need to face incentives that make exports at least as profitable as domestic sales. Two dimensions of the policy regime are particularly critical in determining the relative profitability of export markets. One is the exchange rate. An overvalued and unstable exchange rate is a major barrier to export rivalry. It lowers profits and deters firms from making the commitment needed to become significant exporters.¹⁶ Equally important is the level of competition in domestic markets. All barriers to domestic competition function as export barriers by increasing the relative profitability of domestic sales. Thus it is essential to remove these barriers and introduce a balanced and effective mix of competition policies.

Competition policies

Developing countries should use competition as a powerful tool of industrial policy. It is an instrument that might have been unavailable in the early stages of industrial development, but is more effective than government controls and incentive systems in the presence of functioning markets and a dynamic entrepreneurial class. Competition is required if countries are to move efficiently beyond the initial stages of industrialization. As Japan and other successful East Asian countries have shown, stimulating domestic producers to compete at home and in international markets is the key to helping firms mature technologically and managerially. The basic aim of competition policy thus is to ensure that domestic firms are forced to operate in competitive environments.

Improvements in managerial, technical, and allocative efficiency result from the threat of entry and actual rivalry among producers, substantial penetration of export markets and pressure from imports. Industrializing countries should pursue an integrated competition policy, promoting domestic competition and stimulating producers to move into international markets.¹⁷

Should these steps be sequenced in any

specific order to maximize the probability of a positive supply response? Compelling reasons suggest that simultaneous phasing might be most advantageous. Stimulating domestic competition by removing regulatory and promotional barriers to entry, growth, and exit is critical. Rapid import liberalization when economic agents are constrained in how flexibly they can allocate their resources might lead to a limited or negative supply response, large social costs, and a reversal of reform. Regulatory changes should be introduced with import liberalization to give producers the flexibility and incentives to enter promising markets, expand profitable operations, shift product lines, and exit from shrinking markets.

Turkey illustrates the importance of coordinating trade and regulatory policy reform. Large devaluations combined with trade reform in the early 1980s led to a sharp drop in profitability of import-competing sectors, creating nonperforming assets. Once in distress, bankers (especially smaller ones) pursued risky survival strategies, and competed fiercely for deposits, offering high interest rates and bailing out insolvent borrowers rather than allowing them to go bankrupt (Atiyas 1989). As a result, resource reallocation benefits from adjustment policies were reduced, as was the investment response. Timely exit was the missing link in the adjustment process. More stringent regulations that forced banks to clean up their portfolios and liquidate insolvent firms were then required.

A distorted structure of relative prices may thus increase the likelihood that the banking system is exposed to nonperforming assets as competitive pressures increase, making the restructuring of bank portfolios critical. Otherwise banks are tempted to bail out insolvent incumbents to salvage their balance sheets. Interest rates are pushed up as borrowers in distress are willing to pay high rates, regardless of their ability to repay. Promising investments are squeezed out. And as interest rates rise investors find financial instruments more attractive than investments in real assets.

In Mexico entry barriers have precluded significant adjustment despite decisive trade liberalization.¹⁸ The restructuring process has been slow in subsectors covered by special programs. Entry restrictions and other policy distortions have resulted in large efficiency losses and reduced producers' ability to compete with imports.¹⁹

While regulatory reform is essential for a

positive supply response, trade reform normally should not be delayed in the expectation that domestic deregulation will create sufficient competition pressures. Behind high trade barriers, financial and economic incentives are not aligned, and investments are not necessarily directed to economically profitable activities. Lowering entry barriers with substantial import impediments might lead to excessive entry, an insufficient degree of intra-industry specialization, and fragmentation of production. Import reform, as noted earlier, is also critical where high natural or strategic entry barriers have allowed a few firms to attain dominant positions.

As domestic markets become more competitive and less profitable, producers are stimulated to enter or substantially expand their commitments to international markets. The role of a supportive export policy is to ensure free trade—at least for exporters—as import liberalization is introduced, and to provide the marketing, finance, and infrastructure needed to compete in export markets. Import and domestic competition help narrow the profitability differential between domestic and export sales; they enable pro-export arrangements to tip the balance in favor of the international market.

The recent dramatic increase in domestic competition in India is instructive. Regulatory reform has led to a substantial number of new firms and has squeezed company profits. The top 100 firms reported a drop of about 24.3 percent in profits, despite a 9 percent rise in sales in 1986-87. The profits of all but one of the 10 largest private sector companies fell. Moreover, companies have been forced to cut prices, reduce costs, streamline operations, and increase their marketing efforts.²⁰ There has been increased pressure on firms to exit, which has yet to be allowed on a timely basis. This compression of profits has reduced India's historically strong anti-export bias. Combined with more effective export promotion policies and significant exchange-rate adjustments, the relaxation of barriers to entry and expansion resulted in the rapid growth of manufactured exports in 1987-88. The improved competitive standing of Indian producers has also decreased the opposition to trade reform.

It is not essential, however, that regulatory reform precede export development efforts and trade liberalization. In Indonesia successful export policies have been the stimulus for phased trade liberalization and domestic regulatory reform. The reforms have been bunched in a rela-

tively short period and have led to substantial domestic and foreign investments. To be most effective, trade, export development, and regulatory reforms should be launched either jointly or within a year or two of each other.

Domestic competition policy

The first step to promote domestic competition is to remove policies that bar entry, growth, and exit. Three areas of regulatory policy are discussed below: entry policies, as reflected in systems of capacity licensing, investment incentives, and public sector procurement; exit policies, including labor retrenchment, asset transfer, and financial restructuring and bankruptcy procedures; and pricing policies. Reform in these areas would be instrumental in eliciting a strong and sustainable supply response.

POLICIES AFFECTING ENTRY. The difficulty of entering markets may be exaggerated because of government policies. Three specific instruments through which governments influence entry are:

- *Capacity licensing:* These systems have often served as barriers to entry and growth. Licensing authorities were guided by multiple objectives, but international competitiveness was rarely a consideration. Under industrial policy reform, all industries would be delicensed except a few special cases, which would be put on an interim list until appropriate controls, procedures, and instruments were developed to monitor them. (These might be products with environmental risks or those directly related to national security.)

- *Investment incentives and sectoral programs:* These incentives need to be reduced significantly, to help regain fiscal balance in public sector accounts, and to reduce the economic efficiency losses associated with dislocation of industrial activities. To encourage competition governments should drastically reduce the extended periods for which fiscal incentives are awarded, which confer significant and undue cost advantages on incumbents. Automatic and transparent screening also would lessen the incumbent bias of incentive systems, since major producers normally enjoy preferential access under discretionary systems. To reduce the transfer of rents to selected industries, governments should phase out sectoral programs and remove entry-restricting provisions that usually accompany them.

A number of anticompetitive rules em-

ployed by regulatory and investment-promoting agencies should be changed. Static physical supply-demand equilibrium has been used widely as a justification for sealing subsectors from potential competition.²¹ This approach clearly disregards the economic benefits of potential competition, which is absent unless entry is a credible possibility to newcomers. Moreover, excess supply can be a positive force for efficiency when uncompetitive conditions prevail. Finally, such a crude notion of equilibrium reflects a pessimistic (and often unjustified) view of export markets.

Another broadly applied rationale for determining entry is the need to establish plants of a minimum efficient scale to avoid fragmentation. Yet the predominance of plants of suboptimal size normally occurs not because entry barriers are low but because of high domestic rents and high exit barriers. If producers need to compete in international markets, grossly suboptimal scales of production would not be a rational choice and uneconomic operations do not survive unless exit is precluded or easy credit provided.

- *Public sector procurement:* More transparent, equitable procurement systems would increase competition in government markets. Bids should be publicized well in advance of their public openings, with specifications that are clear, precise, and complete. New entrants should be encouraged, both to increase competition and to move away from single-sourcing. This is particularly critical when dominant or monopoly suppliers have cornered government procurement markets. Newcomers and foreign suppliers should be encouraged, at least in monopolized or cartelized sectors. To stimulate supplier development, including the acquisition of technological capabilities, governments can introduce a procurement budget structured on a multi-year basis. The volume and composition of public purchases should be diffused widely among actual and potential suppliers to encourage development of capabilities. Performance goals need to be announced well in advance so that firms have enough time to generate the needed capacity by acquiring technology.

POLICIES AFFECTING EXIT. In other cases government policy has the effect of discouraging firms that are not competitive from shifting product focus, downsizing, or shutting down altogether.

- *Financial restructuring and bankruptcy procedures:* In many developing countries firms with outstanding loans cannot close down without the

agreement of their creditors. This is a major impediment to exit as many lending institutions have been reluctant to agree to closures that may require them to write off bad debts. Banks often have opted to extend additional credit, hoping that the unit would be rehabilitated and eventually repay its loans. An unwillingness to recognize and write off bad debts has led to imprudent lending decisions and exposure levels. Such practices arise, in part, from management systems which allow nonperforming or bad debts to remain on the asset side of a bank's balance sheet until the loan is written off. Shifting the questionable loan to a nonperforming debt category would detract from the banks' apparent profitability. Central bank guidelines should require banks to shift loans that have been nonperforming to a risky asset category, with reserves set aside to cover possible losses.

Governments also must avoid taking over unprofitable units. Until this policy is firmly enforced, there will be a "moral hazard" problem: managers of lending institutions and industrial units will continue to see the government as the lender of last resort. Investors and banks often believe that if an important project fails, the government will step in, absolving the investor of his obligations and guaranteeing the banks some repayment. This problem is reinforced by the nature of bankruptcy procedures, which are generally complex and time-consuming. Bankruptcy procedures should be simplified, with flexible rules for the disposition of assets and payment of creditors, and a strong policy against interventions to save nonviable enterprises. Sound implementation of bankruptcy laws also requires strong capacity in the judicial system. Tighter guidelines for court-managed processing to wind up nonviable enterprises and penalties for non-compliance are often required. Regulations should not block the development of professional bankruptcy intermediaries specialized in administration and reorganization (including disposition of assets). Finally, the success of reforms in the area of liquidation is closely linked to the development of securities markets and a competitive banking system, offering flexible instruments for liquidation, acquisition, and financial restructuring.

- *Labor retrenchment:* Labor and employment policies should facilitate employment creation rather than focusing on the preservation of non-sustainable or uneconomic employment opportunities. Firms generally need greater flexibility

to adjust the volume and structure of their work force. Government permission should not be required to release employees within guidelines for compensation for job relocation or loss of employment. To soften the social costs of plant closures and labor retrenchment, governments also might consider increased funding for information and retraining linked to specific employment opportunities and skill requirements.

- *Asset transfers:* In many developing economies procedures for transferring assets through mergers and takeovers often are too prolonged. Such transfers should be executed expeditiously to increase the efficiency of resource allocation. Licenses, when required, should be transferred automatically with the acquisition. Restrictions on labor retrenchment, if they exist, should be lifted for a specified period.

PRICING POLICIES. Governments should de-control prices fully in competitive sectors. In uncompetitive markets the removal of barriers to mobility and competition, including substantial reductions in trade barriers, should accompany decontrol. In such cases prices should be fixed at import price levels until import competition becomes fully binding and regulatory barriers to entry are removed. Eventually prices should be liberalized completely, except for monopolies producing nontradeables.

To the extent that price controls are continued in certain limited areas for noneconomic reasons, the following general guidelines are instrumental in minimizing their adverse impact on industrial performance. First, governments should establish pricing formulas that are transparent to producers, frequently monitored and reviewed, and result in prices that remain within moderate limits (say 20 percent) of the level and movement of border prices. Administered prices should be reviewed regularly and systematically. Small and frequent price changes are preferable to large and infrequent ones. The approach should minimize discretion, linking price changes in each industry with changes in input costs or border prices.

COORDINATION OF REGULATORY POLICY CHANGES. Effective phasing and coordination of industrial regulatory reforms are critical. Entry and exit policies need to be reformed jointly. Policy-induced exit barriers are in effect entry barriers; exit barriers make investment activity riskier and less attractive, by depressing the overall profita-

bility of the industry. Even when exit barriers do not preclude entry, there is another pressing reason to coordinate the two reforms. New entries increase the degree of actual competition and thus the probability that firms may need to exit. The inability of producers to respond flexibly to changing market conditions by shedding old products, restructuring, and consolidating operations will increase the financial distress of firms. The very success of the policy reforms, in terms of new entries, would lead to this pressure on exit and restructuring.

Other links between entry and exit policies call for close coordination of reforms. Freer entry without easier exit could further increase capacity fragmentation, a major cause of production inefficiencies. The managerial efficiency gains from subjecting dominating firms to more contested markets would be reduced by policy-determined exit barriers. If survival is assured, competitive pressures will be muted. Financial sector policies should encourage banks to deal more aggressively with nonperforming assets, restructuring viable concerns and writing off bad loans while adopting more prudent lending behavior. A first step is to strengthen the central banks' supervision and control. Information and monitoring systems are required to act on questionable assets and to make banks' portfolios more transparent.

Finally, the removal of mobility barriers and price controls should be coordinated. Entry and expansion would be discouraged if price controls resulted in low or negative profitability. Plants would fall into obsolescence. The lowering of entry and expansion barriers should be accompanied by the progressive decontrol of prices. Conversely, if prices are freed from controls in a market where entry and expansion are precluded or discouraged by regulatory fiat, the exercise of market power by incumbents could lead to price gouging unless competition from imports is significant.

Import competition policy

Moderate to strong competition from imports is an important means of improving resource allocation and use. It also is an effective way of curbing the exercise of market power, particularly when production technology calls for scales typical of natural monopolies, or when one dominant local producer is entrenched and protected

by high entry barriers. Imports should be free from all restrictions other than a moderate tariff (10 to 20 percent). Nontariff barriers should be removed and import procedures should be transparent, not subject to discretionary changes.

In countries where opposition to import liberalization is strong, trade reform might be initiated through a free trade regime—at least for exporters—by introducing import-duty exemptions or drawbacks for direct and indirect exports. This should be regarded as a first step to build support and get the process moving at low political cost.²² A second step is to rationalize the tariff regime to make it feasible to move away from quantitative restrictions to tariffs. This would be achieved by eliminating the use of exemptions and special surcharges that undermine the validity of tariffs. Such devices reduce transparency, introduce discretionary elements, and increase the dispersion of effective protection. The government should then move to narrow the tariff band and lower average tariffs.

In what order should import liberalization take place? If information on effective rates of protection is available, countries could deal with the most protected subsectors first. Without such information a specific sequence cannot be recommended, but some countries have started import liberalization with intermediate goods activities that are often characterized by monopolistic forms of organization. This first stage of liberalization raised users' effective rates of protection, which often had been negative, and created a large interest group backing trade reform.²³

Trade reform should not overlook the welfare implications of aggressive or monopolistic conduct by foreign suppliers. Nor should it be mute on the exercise of monopoly power by domestic importers (through tariff "privatization").²⁴ But the policy options illustrate the difficulties of addressing monopolistic conduct in trade.

In the case of tariff "privatization" the government could reintroduce the tariff whose abolition resulted in the privatization of government revenues; this shifts the rents back from the firms to the government but does not pass them on to consumers. Alternatively, the government could buy directly from foreign suppliers, although this approach is likely to create more problems than it resolves. It would be preferable to encourage domestic producers and wholesalers, although new distributors will find it hard to

compete against dominant vertically integrated firms that are both producers and wholesalers. A last option is to split up the dominant firms and separate their wholesale activities from domestic production.

Export rivalry policy

Policies and institutions are needed to put exporters on an equal footing with their international competitors. The experience of successful East Asian economies (particularly Singapore, Hong Kong, and Korea) is instructive. A long-term, stable, and credible commitment to achieving high rates of export growth was critical to their performance, as was an aggressively competitive exchange rate policy.²⁵

A number of key institutional mechanisms helped.²⁶ First, free trade status was granted to all activities that generated export value added, initially through duty exemption or duty drawback systems (in Korea and Singapore). This mechanism was then broadened to include smaller, indirect exporters (subcontractors and suppliers of parts, components, and raw materials), and was incorporated in other institutional arrangements (such as free trade zones). In its core form, this mechanism has been widely accepted in other industrializing countries.

Second, the financial markets supported exporters by ensuring them automatic access to credit. Financing arrangements were modernized and a number of financial innovations introduced. These included undisrupted and speedy rediscount by central banks, pre-shipment export finance, automatic loan disbursement, and liquidation mechanisms tied to import and export bill negotiations, domestic letter of credit systems, export credit insurance mechanisms, and post-shipment finance arrangements (see Rhee 1985, p. 202). Possibly the most important innovation—not only in export finance but in the overall incentive framework—was the domestic letter of credit. It allows indirect exporters (either input suppliers to manufactures or output suppliers to trading companies) to gain access to export credit and incentives. The major impact of the domestic letter of credit has been the improvement in backward linkages, the development of trading companies, and the growth of small export firms.²⁷ It has been particularly effective in deterring discrimination against small and medium-scale enterprises, most of whom are

engaged only indirectly in export activities.²⁸

The effectiveness of these instruments was not only based on their innovative design but also on the principles that guided their use (see Rhee 1985, pp. 16-19). As already stressed, automaticity and expediency have been the key means of minimizing administrative uncertainty and accelerating exporters' response time. Also important has been the equal treatment of all activities that generate export value added, the prevention of abuse, the simplification of administrative procedures, and the decentralization of authority to either public or private agencies (commercial banks, export associations).

Departures from a neutral competition policy

A neutral competition policy subjects domestic firms to greater rivalry in domestic and international markets. This paper has emphasized the importance of removing policy-generated barriers to competition. But when natural and strategic barriers prevail, policy-makers might need to provide a structure of incentives and an institutional setting that goes beyond a neutral regime and actually stimulates competition in domestic and export markets.

Policies that promote competition in domestic markets

The notion that policies should be designed and implemented to promote domestic competition applies with particular force to more concentrated and stable industrial segments. The threat of entry lowers the probability that established firms will exert market power or coordinate their moves. Dominant public or private sector incumbents have to be challenged if they are to improve their performance.²⁹

Should industrializing countries develop an activist policy toward highly concentrated sectors? Competition in specific industries is closely related to the number of firms and the distribution of market shares. A highly skewed firm size distribution is an indication that imperfect forms of competition prevail. If imperfect competition in domestic markets is the result of large natural barriers due to high sunk costs or limited information available to entrants, governments can develop affirmative policies to help entrants overcome some of these barriers. Policies could range from increasing infrastructural

services and enabling firms to share fixed facilities (such as transportation terminals) to establishing a regulatory framework to facilitate leasing arrangements for durable goods (including plant and equipment), and assisting with technical, marketing, and employee training. In view of the scarcity of credit, it is equally critical to support the development of venture capital institutions through changes in legislation regulating the provision of venture capital services, asset transfers, and taxes on venture capital gains.

Competition should not be promoted by encouraging fragmentation or deterring amalgamation to maximize the number of producers in a given market. In some industries moderate or even high degrees of concentration may be needed for firms to operate at the production frontier and exploit available economies of scale and scope. It is critical in those cases to ensure that entry remains a credible threat to the profit and market position of incumbents. Mergers should not be blocked as they can be essential in rationalizing an industry. Mergers should be discouraged only when there is a significant probability that the merged company would have the market power to deter entry, engage in unfair trade practices, and push prices above competitive levels. Some guidelines could be established, for example, prohibiting firms to merge if their combined market shares exceed a certain level.

When decisions to reduce and consolidate capacity in depressed or declining industries must be coordinated, government intervention may be required. In the absence of timely intervention, governments might eventually be compelled to effect a substantially more costly intervention to avert massive disruptions in the industry. Governments might devise policy instruments and institutional arrangements to allow producers with relatively similar cost structures a proportional share of chronically unprofitable activities and eventually to consolidate capacity.³⁰ This step should focus on selected subsectors where marginal market-driven reductions are not possible and where each producer thinks that profitability could be restored if other firms reduce capacity first.

Lowering barriers to entry and exit, and deterring extreme forms of concentration would be structural dimensions of a competition policy. Controlling predatory, collusive, entry-detering and other forms of anticompetitive conduct would be its behavioral counterpart. Predatory conduct, particularly with the intent to gain and maintain

monopolistic market positions, should be forestalled by appropriate legislation and enforcement.³¹ The role of government would be to set a legal and regulatory framework that establishes the limits of acceptable market conduct so as to effectively curb anticompetitive behavior.

Policies that promote competition in export markets

Several arguments favor a temporary pro-export bias. First, natural barriers to competition are higher in export than domestic markets; not only are transportation costs larger, but marketing know-how is more complex and expensive. Export-oriented costs to improve product design and quality, and to modernize production are substantial. Such costs represent a resource hump that producers in industrializing countries have rarely overcome without active government support.

Second, to the extent that most industrializing countries have experienced an anti-export regime for long periods, managers' attitudes and habits tend to be guided by a parochial view of the world. Without exposure to the ground rules of export markets, they cannot be expected to behave in a manner conducive to immediate gains in foreign market shares. Even if a change in the policy regime makes exports more profitable than domestic sales, producers do not immediately turn around and export.

Finally, it can be argued that export markets involve a higher risk than domestic markets and profitability needs to be higher. But the export risk appears to be higher than the risk of domestic sales only in the short run: once a firm has established itself internationally, the risk from export activities is substantially lowered.

A pro-export policy need not provide permanent incentives that guarantee a superior profitability of export sales even in the long run, because most barriers to export rivalry tend to be temporary. After resources have been sunk in export-oriented activities and producers have gained sufficient knowledge of the international market, producers would have a natural propensity to commit themselves to export markets. Unless they face more profitable opportunities in the domestic market, or severe unexpected constraints (such as new protectionist barriers in importing countries or a sharp restriction in the supply of infrastructural services), they have an incentive at least to sustain their export market position.

To the extent that most barriers for domestic firms to compete in export markets are temporary, there is little justification for export incentives on a permanent basis. Governments may aid producers to become permanent exporters by providing compensatory tax and financial export incentives for a definite and limited period of time, say three to five years. During this transition the government would attempt to build certain key institutions and administrative export-supporting arrangements, while phasing out policies that artificially enhance the profitability of domestic markets.

Industrial targeting

Recent advances in the theories of industrial organization and international trade suggest legitimate, systematic departures from a neutral competition policy.³² Targeting investment in high-profit sectors—restraining import competition and promoting sectoral development—can have economic benefits, if a more open trade environment were to cause a contraction of these sectors.³³

It is worth stressing that the object of policies that attempt to foster the growth of high-profit domestic activities is to increase national income. In this sense it is different from infant industry protection, which assists firms that in the short run may not be profitable but that generate positive externalities. There is, however, a strong similarity in the two arguments for targeting. Both are based on the failure of markets to attract sufficient resources to industries that could bring the largest gains to the domestic economy. A neutral competition policy in this case might bring about the contraction or deter the formation of high-rent or positive-externality sectors.

Industrial targeting has been focused on individual firms or whole sectors, on the presumption that size and financial staying power are necessary to achieve international competitiveness. It should be pointed out, however, that there may be trade-offs in pursuing such a policy. Although there are substantial economies of scale in industrial activities, it does not follow that a policy of sheltering individual firms should be pursued. Economies of size achieved through

targeting might be more than offset by lax management practices allowed by sheltered markets.³⁴ By deterring entry, favoring concentration, and restricting import competition, some rents might indeed be transferred to the targeted firm. Still, in the absence of strong competitive pressures, firms would have no incentives to attain superior performance. It should be stressed that successful cases of firm targeting have been systematically associated with substantial rivalry in domestic markets and a strong commitment by targeted firms to compete internationally.

Targeting high-rent or large-externality sectors also might create problems. First, which high-rent sectors should be targeted? The fact that some command high profits now is no assurance that they will do so in the future. Equally difficult is finding out what industrial activities provide significant externalities. Often large externalities are not associated with a particular industrial segment but with a cluster of productive or informational activities that provide the basis for industrial competitiveness. These are extremely difficult for governments to target. Countries must have moreover the institutional and administrative capacity to target effectively and the political will to terminate the incentives after a set period.

If sectoral targeting becomes a policy objective, it should neither preclude domestic competition nor block the threat of import competition. Moreover, it should be temporary and linked to an explicit and credible commitment to reverse it.³⁵ Protection and promotion should be moderate, limited to three to five years, should not discriminate against entrants, and should be evaluated against the performance of domestic firms in international markets.

For most countries, instead of targeting incumbents or specific sectors, governments might want to focus on human, technological, and institutional capabilities as a means of shifting comparative advantage. Policy and institutional interventions would be targeted to alleviate market imperfections. The development of financial markets and instruments, support for the acquisition of technological capabilities, and a strong commitment to education and training would constitute some of the dimensions of such an affirmative policy regime.

Annexes

Annex 1 The nature of competition

Most industrial markets in developing countries are characterized by imperfect competition. This annex briefly reviews the main features of the different forms of competition.

Perfect competition

Few markets can be described as perfectly competitive. The competitive market paradigm nonetheless provides a benchmark against which other structures can be evaluated. The model presumes that a large number of firms produce a homogeneous good under decreasing returns, and that entry and exit are both fast and costless. There is no strategic interaction among producers because no single producer has a perceptible impact on the market. As a result—and this is the basic assumption of this model—firms take prices as given.

Individually, producers face infinitely elastic horizontal demand curves, and prices are just sufficient to cover marginal costs. Figure 1 portrays a representative firm (the i th producer). The pair (Q_e, P_e) is determined by the intersection of the individual firm's supply (given by its marginal cost curve— mc_i) and its perceived market demand. All productive factors are rewarded according to their marginal contribution to output. Economic profits (or rents) are zero. Productive factors also are fully and efficiently utilized; as a result, under perfect competition industry's output Q_e (obtained by horizontal summation of

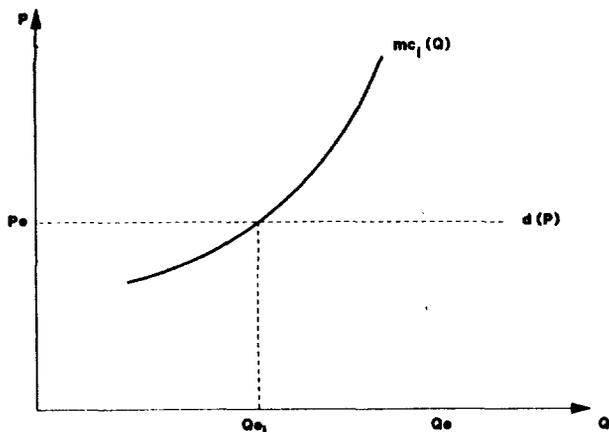
each firm's production) is at its maximum, and welfare or deadweight losses are nil.

Pure and contestable monopolies

The polar case of a perfectly competitive market is a monopolistic market with a single seller. Most often, monopolies arise either by fiat, when a government decides to grant monopoly rights to a given producer, or as a result of a technological imperative. In the latter case, the monopoly is "natural," in the sense that economies of scale are so large (relative to the size of the market) that cost minimization calls for the presence of a single producer. Figure 2 portrays the price-output behavior of a "natural" monopolist, facing a linear demand curve D , and producing under increasing returns to scale in the relevant output range (the average cost curve AC is falling throughout, and the marginal cost curve MC lies always below it).

This description approximates the conditions under which the production of many non-tradeable services (such as telecommunications, electricity, water) takes place. Were their provision left unregulated, the profit-maximizing solution (Q_m, P_m) would be the firm's choice. It allows the monopolist to capture $R(Q_m)$ in rents and brings inefficiency losses of $DW(Q_m)$.³⁶ In this model, it is implicitly assumed that the producer confronts no potential competition which would place a constraint on prices. This is a fair assumption for many natural monopolies, where the volume of sunk (or irretrievable) costs is such

Figure 1 Representative firm in a perfectly competitive market



that it poses a binding barrier to entry, thus precluding potential competition.

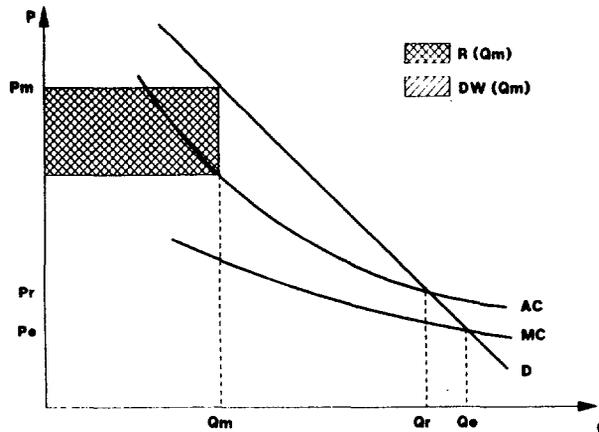
The opposite presumption lies behind contestable market models. In these, entry and exit barriers are assumed to be absent, and entrants are able to quickly replicate the cost structures of incumbents. Another key assumption of the model is that against the threat of entry, producers respond by moving prices downward (see Baumol 1982, pp. 1-15 and Shephard 1984, pp. 572-587). The monopolist's profit-maximizing solution would then be the pair (P_r, Q_r) . Rents are driven to zero, as price falls and is eventually equated to average cost.³⁷ This model has a striking implication: a monopolist would be driven to the competitive outcome (one which constrains monopoly profits to zero) so long as it is operating in a perfectly (or structurally) contestable market. In this case, potential competition would fully substitute actual competition.

Oligopolistic rivalry

Most industrial markets are characterized by moderate barriers to competition. As such, they neither fit the perfectly contestable or competitive model, where barriers are absent, nor are they consistent with the characterization of a "natural" monopoly, where these barriers are binding. Entry in oligopolistic markets is possible, but not easy. As a result, there are relatively few dominant firms, facing moderate threats from the outside.³⁸

In contrast to perfectly competitive markets, where the actions of individual agents have

Figure 2 Monopoly behavior under increasing returns



no perceptible influence on the behavior of others, in oligopolies firms play strategic games.³⁹ The fundamental few agents, prices and other market outcomes are to be regarded as a product of their strategic interaction.⁴⁰

An oligopolistic market is not an anonymous mechanism. Each firm uses a number of devices in its efforts to compete: the level and structure of prices, alterations in product design and quality, advertising and other promotional campaigns. Tacit cooperation, as found in cartels, is not generally assumed to be a sustainable form of conduct (and explicit cooperation even much less so). However, in mature oligopolies, firms do develop more predictable and stable relationships, eventually settling down to accommodating patterns of behavior.

In the basic (noncooperative) oligopoly model, each individual firm enters the market by specifying a vector of product characteristics with which it competes. Most propositions in oligopoly theory flow from either assuming that output is the decision variable and that firms maximize profits taking the level of output chosen by rivals as given (in the case of a so-called "Cournot" oligopoly), or that price is the decision variable, and it is the prices of competitors that are taken as given (in case of a "Bertrand" oligopoly).⁴¹

These assumptions are not exactly realistic and present a static (or at best a short-term) view of how oligopolistic firms behave. It is not commonly the case that firms maintain their output or prices under changing competitive conditions. Nonetheless, this model is useful to the extent that it does suggest what kind of market

outcomes to expect, at least in qualitative terms, from different oligopolistic configurations.

In equilibrium, prices, quantities, and levels of pure profits vary considerably, depending on whether oligopolists compete in quantities or prices (figure 3). As long as the number of firms is assumed fixed (due, for example, to binding entry barriers) and producers do not compete in prices (not an unreasonable assumption for differentiated products), the market is not driven to the competitive outcome, but to an intermediate solution allowing moderate rents (C, the Cournot solution). Were oligopolies competing in prices, however, the market would be driven to the competitive or efficient outcome B=PC, in which case rents would be zero. A similar result would be reached if the number of entrants were infinitely large. Finally, if firms were cooperating with each other, they would be producing and charging at M, the monopoly rent-maximizing solution.

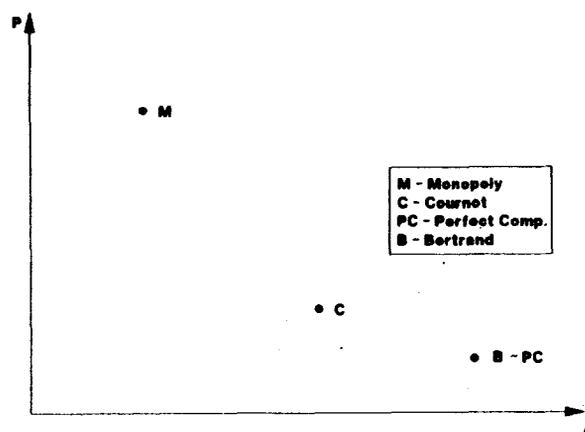
Competition and efficiency

This description of market outcomes under different competitive configurations underlines the importance of entry barriers and market concentration for prices, quantities, and profits. It also suggests that, at least in a static sense, the impact of concentration on performance is most adverse when entry barriers are fully binding. The relationship between concentration and barriers to entry is equally important in assessing how dynamic efficiency gains respond to different patterns of competition. From a longer-term development perspective, this is the critical question for competition policy.

At any time perfectly competitive markets generate optimal price-output combinations. Over time, however, economic performance might actually suffer under perfect competition. The reason is that firms operating in perfectly competitive markets often lack the resources to fund research and development, an increasing-returns activity that is responsible for most technical change. They also lack the scale to internalize many of the learning economies that drive productivity growth. In this sense, the perfectly competitive market is not a progressive one as far as technical change is concerned. On the contrary, technical progress tends to be exogenous and driven by outside agents, such as research institutions and suppliers.

The example of the wheat farmer, the text-

Figure 3 Price-quantity outcomes under different competitive configurations



book paradigm of an atomistic producer, is illustrative: agricultural research stations normally produce the innovations (such as new seed varieties and farming techniques) that extension services, and input suppliers disseminate. This is not peculiar to agriculture (see Pavitt in Rosenberg and Frischtak 1985). In such sectors as housing, services, and some segments of traditional manufacturing characterized by significant atomistic competition, producers tend to be passive adopters.

Thus there is a tradeoff between static and dynamic efficiency. Market concentration and positive rents are needed both to finance ongoing research and as an incentive for further research and innovation.⁴² This, however, is predicated on competition barriers being low and easily surmountable. If markets are simultaneously concentrated and sheltered by high barriers to competition, rents serve only to strengthen the position of established producers. In this case, concentration increases the probability of anticompetitive behavior resulting in substantial dynamic welfare losses.

Annex 2 The complementarity of domestic competition, import competition, and export rivalry

Establishing the complementarity of domestic and import competition and export rivalry is a fundamental step in making the case that only an integrated competition policy—combining domestic regulatory reform with import liberalization and export promotion—can ensure a positive, efficient supply response.

Each dimension of competition is likely to improve both resource allocation and efficiency, but domestic competition seems to be a particularly strong force in improving managerial efficiency. Import competition provides the strongest pressures to improve resource allocation, and export rivalry is instrumental in moving out the domestic efficiency frontier. The basic forces of competition also act in synergy, reinforcing each other. An increase in domestic or import competition has a positive impact on export rivalry in the medium to long run, even though the short-run impact might be negative. Finally, barriers to one dimension of competition can prevent firms from behaving competitively in another dimension.

Impact of different competition forces

Competitive domestic markets provide strong incentives for firms to improve x- (or managerial) efficiency. The main effect of domestic competition is to force managers to cut waste and use resources more efficiently.⁴³ Domestic competitive pressures prod local firms into gathering information from their immediate competitors and emulating the best practitioners. It is through this process of learning from each other's operational characteristics and managerial practices that domestic firms are able to improve efficiency.

Import competition can have a particularly marked impact on the structural efficiency of industry by giving domestic firms greater access to inputs unavailable or more costly in domestic markets and by putting them in touch with more advanced processes and designs. Firms are thus able to improve their factor mix. Import competition has the most impact, however, on resource allocation. Many developing country industries are excessively diversified, inefficient producers. Import competition creates strong incentives to restructure or shed inefficient operations and to expand output along more specialized lines.⁴⁴

Bank sector analyses in Argentina, Chile (V. Corbo and J. de Melo, 1985) and, more recently, Mexico, have shown that trade reform has led firms to make significant adjustments in production strategy, initially through improvements in product quality, packaging, and design (as in Mexico). Competition from imports eventually led to the introduction of new products, a new product mix, and narrower product lines that were more competitive. The reallocation of re-

sources has taken place through mergers, consolidations, and plant closings as well.

Export rivalry policies can cause major dynamic efficiency gains. Export facilities can induce progressive managerial behavior by exposing firms to new technological trends, designs and production characteristic of the international production frontier. A commitment to export markets represents an incentive for firms to adapt their production and marketing organizations continuously in response to rapidly changing market requirements.⁴⁵

Korea's experience suggests the importance of exports to industrial technology development. Indeed, the authors of a detailed study of the behavior of Korean exporting firms conclude that there is "a tremendous efficacy of export activity as a means of acquiring industrial competence: [through it] Korean firms have enjoyed costless access to a tremendous range of information, diffused to them in various ways from the buyers of their exports. The minor innovations that have resulted have been significant in increasing production efficiency, changing product designs, upgrading quality and improving management practices. Exporting thus appears to offer a direct means of improving productivity..." (Westphal, Rhee, and Pursell 1981, p. 77; Rhee, Ross-Larson, and Pursell 1984, Chapter 4).

Synergies among the forces of competition

Among the forces of competition, important synergies exist. An increase in domestic competition tends to stimulate export rivalry. In Japan, for example, intergroup rivalry has been an important incentive for firms to move to export markets. Particularly since the early 1960s, as the heavy and chemical industries matured, export activities became critical to avoid fragmentation of output and the erosion of profits in an increasingly contested market.⁴⁶ The recent experience of India seems to be another significant example of intensifying domestic competition stimulating a more aggressive posture in the international market, with "...dozens of companies making an unprecedented push for export markets, partly because this is needed for survival, partly because exports have become profitable" (India Today 1988).

Another relevant synergy is between import competition and export rivalry, which the medium and longer term is generally positive and appears to be particularly strong for partial

forms of import liberalization. Korea is a classic case of promoting exports by subjecting one segment of its economy to import competition—by completely liberalizing imports of inputs for direct and indirect exporters (Y. Rhee, 1985). This form of import liberalization—creating a free trade regime for such inputs—is a key dimension of export rivalry policies as advocated in this paper.

Evidence also exists that broader forms of import competition correlate with an expansion of exports. A study of trade liberalization policies in 19 countries found that export growth was nearly twice as large in the “liberalizing” group of countries (M. Michaely 1988). Although significant, these findings do not definitively establish causality between domestic competition and export supply response.⁴⁷ To make a cogent case for the proposition that competition stimulates export rivalry requires, in addition, an outline of the economic mechanism explaining this synergy. The main argument is sketched as follows.

The basic mechanism explaining the positive impact of domestic and import competition on export rivalry is the movement of firms across markets. Profit-maximizing firms will exit markets characterized by relatively intense competition and low profitability, and orient their output toward more attractive alternatives. If import liberalization or domestic deregulation lowers the profitability of domestic markets, this provides an incentive for firms to increase their exports.

Because moving from less profitable domestic to more profitable export markets takes time and resources, the influence of increased domestic and import competition on exports will be different in the short and in the long run. In the short run, firms can increase marginal exports without reducing their costs or increasing their international competitiveness. In the medium to long run firms will be able to reallocate resources and change their investment decisions (once they observe lasting changes in the relative competitiveness and profitability of markets). This will then reduce their costs and increase their technical efficiency.

The immediate impact of increased import competition on exports and the trade balance may even be negative. While foreign firms become more active in domestic markets and falling prices cause demand to expand, the competitive position of domestic firms may deteriorate. Additional demand is met mostly by more competitive foreign firms. As a result, imports rise,

and net exports fall.⁴⁸ In contrast, increasing domestic competition will in the short run increase net exports. A rivalry-driven output expansion or an oligopolistic price war forces domestic prices down and increases profitability of exports. Imports contract, since they become relatively more expensive. The net result is an increase in net exports.⁴⁹

In the long run, entering a foreign market or sustaining a substantial increase in exports generally is not possible without investments: for example, a larger plant, developing a better product, setting up or extending a distribution and service network. Since only changes in competitive conditions regarded as permanent will affect firms’ investment decisions, an increase in domestic competition through entry (a “permanent” competitive move) would be a particularly effective stimulus ensuring that resources move to export markets. Increased import competition through reform of the trade regime has a positive impact on non-residual exports only if regarded by producers as a credible and sustainable policy measure. The difficulties of lending credibility to trade reform initiatives is an additional reason to lean on domestic competition as a complementary instrument for inducing efficient supply response.

The short-run impact of domestic and import competition on export rivalry

It is assumed that in the short-run firms can shift from the domestic market to the export market and vice versa at any time without incurring additional costs. The effects on firms’ cost curves and on their longer term investment decisions are ignored. Of course, entering a foreign market or increasing exports substantially in the long run is typically not possible without some capital and research and development investments: a larger plant may have to be built, a better product may have to be developed, a distribution and service network may have to be set up or extended. Such long-run non-marginal increases of exports generally will have a positive effect on firms’ technical efficiency. Short-run marginal increases of exports, however, do not require cost reductions or improvements of firms’ international competitiveness and are not associated with changes of firms’ technical efficiency.

The results of this section can be summarized in form of three propositions. First, an increase in domestic competition brought about

by an increase in the aggressiveness of domestic firms has a positive short-run impact on exports, while an increase in import competition brought about by an increase in the aggressiveness of foreign firms has a negative short-run impact on exports. Second, the short-run effect of increased import competition on exports, through the reduction of a specific tariff, is negative and that of a general import liberalization is ambiguous. Third, an increase in domestic competition through entry of domestic firms has a positive impact on exports.

Consider first an increase of domestic or import competition caused by an increase in the aggressiveness of domestic and foreign firms, respectively. That is, the number of domestic and foreign firms active in domestic markets goes unchanged, and the increase in competition is reflected simply in falling prices and increasing outputs (as happens when domestic or foreign oligopolistic firms engage in a price war).⁵⁰ If the increasing competition is initiated by domestic firms, the effect on exports will be positive: domestic production goes up to serve the increasing domestic demand, and residual exports that cannot be sold profitably at home go up as well. Furthermore, if products are differentiated and as imports become relatively more expensive, their volume will, if anything, go down, which again improves net exports. Analogous to this, if the increasing competition is initiated by foreign firms, imports go up and the export rate tends to go down. Again, if products are differentiated, there is the additional effect that imports become relatively cheaper, which will reduce net exports.⁵¹ Thus, an increase in domestic or import competition through an increase in the aggressiveness of domestic or foreign firms tends to have a positive and negative short-run impact on exports, respectively.

Next, consider the effect of increasing import competition through a reduction of a specific tariff in a certain market. In the standard case of a small open economy in which a tariff protects the domestic industry from world market competition, this effect will be negative. The decreasing relative profitability of the domestic market for the individual domestic firms does not matter here. In aggregate, increasing import competition leaves industry output (as determined by firms' marginal costs and world market prices) unchanged, while it raises domestic demand by lowering domestic prices.⁵² Consequently, net industry exports are likely to fall.

This has been demonstrated in cases of perfect competition and monopoly under the assumption that the tariff being abolished is prohibitive. A straightforward, but tedious analysis shows that these results continue to hold for the oligopoly case and for general, not necessarily prohibitive tariffs.

Further assume that not only a specific tariff is reduced, but also that input markets are liberalized, and increasing import competition gives exporters access to all tradable inputs at lower international prices. Thus exporters will be on an equal footing with international competitors. This cost effect will increase exports and may at least partly offset the primary negative effect on net exports. The total short-run effect of a general reduction of tariffs on the trade balance is ambiguous.

Finally, with an increase of domestic competition through entry, the market share of domestic firms as well as domestic industry output increases. The aggregate effect is that both net exports and the export share of domestic firms go up.

Annex 3 A note on competition policy for natural monopolies

If a market is monopolized by a single producer producing non-tradeables and entry barriers are binding, the government might consider the breaking up the concern into independent units. This step, however, might not be economically advisable if scale economies are substantial relative to the size of the market. In those circumstances, the government might want to establish price-constraining or output-setting regulations to minimize deadweight welfare losses. It might do that in a number of ways. It is willing to subsidize the monopolist, the first-best solution (P_e , Q_e) can be achieved (figure 2 of Annex 1).⁵³ If budgetary or other restrictions preclude the Government from subsidizing the monopolist, the second-best outcome would be the regulatory solution (P_r , Q_r). It lies between the monopoly and the efficient outcomes, and is obtained by constraining the monopolist to zero economic profits (see figure 2).

A more common alternative scheme is the one normally used to regulate public utilities; static efficiency is sacrificed to allow the producer to reap some pre-established level of profits that would provide the incentives and the resources for investment, productivity growth

and dynamic efficiency gains. This however depends very much on the technical abilities of the regulatory body to establish the right structure of incentives, one which would drive the producer to cost-minimizing production techniques and practices within a growth-oriented strategy.⁵⁴

These difficulties arise to a lesser extent in the case of a "natural" monopolist producing a tradeable good. Then, the regulatory solution would need to take into account the price differential between domestically produced goods and their equivalent available in the international market. Competitive imports would set an upper bound beyond which the monopolist could not cross without risking losing market share. These limits are however elastic and in many cases allow for substantial rent-absorption. They depend on the availability of efficient distribution channels and service networks, and an irreversible commitment by the government to a reasonably open market. Moreover, if the domestic monopolist is more efficient than foreign competitors, import competition would not be sufficient to constrain the monopolist to zero profits. In such cases, the government might have to combine import competition with some degree of regulatory control.

Although "natural" monopolies are not faced with domestic rivalry for export markets, they have nonetheless to face competition by other international firms. To the extent that the re-

quirements of international markets are sufficiently tight that they force management to adopt a progressive conduct, the government should push the domestic monopolist out. The pitfall of such a strategy is clear: through price discrimination (or discrimination along any other product characteristic), the monopolist can effectively shift the cost of penetrating and remaining in export markets to the domestic consumers (on the presumption that domestic and export markets are segmented). Nonetheless, the positive externalities from export activities in terms of improved quality, reliability, and technical performance do tend over time to spill over to domestic consumers.

In sum, the competition policy for "natural" monopolies producing tradeables, which is simultaneously welfare improving for domestic consumers and would force the monopolistic to allocate rents to productivity improving measures, would need to integrate policies promoting import competition and export rivalry with elements of regulatory control to curb the exercise of monopoly power in the domestic market. Consumers should be protected against unfair trade practices and other behavior that is detrimental to the public interest by some quasi-judicial agency established for this purpose. And the monopolist should be progressively forced to face international competition at home and abroad.

Endnotes

1. Note that there may be desirable barriers to competition if increased competition lowers aggregate economic welfare. First, certain externalities may require restricting competition on static efficiency grounds. It is well known that the competitive exploitation of commonly held resources leads to suboptimal outcomes (the "problem of the commons"). Second, by reducing economic profits, competition may be "excessive," in the sense of not providing sufficient incentives for firm growth and technical change. Third, in economies where firms and individuals face large differences in initial endowments, competition might exacerbate problems of distributive justice. For simplicity, these issues will be ignored here. A conceptual discussion of the nature of competition is provided in Annex 1.

2. Domberger and Piggot (1986) concluded that "...opening a market to competition is crucial in promoting improved (public firms') economic performance" (p.150). The authors further noted that "...liberalization [even] without ownership transfer will generate substantial improvements in productive efficiency." (p.152).

3. According to the World Development Report (World Bank 1988c), there are at least 26 countries (excluding high-income oil exporters) that fulfill this criterion: India, China, Pakistan, Indonesia, Philippines, Morocco, Nigeria, Egypt, Thailand, Peru, Turkey, Ecuador, Colombia, Chile, Brazil, Malaysia, Mexico, Hungary, Poland, Yugoslavia, Greece, Argentina, Republic of Korea, Venezuela, Hong Kong, and Singapore.

4. In FY88, these countries accounted for 85 percent of Bank lending geared to reforming industrial and trade policies, 85 percent of lending dealing with financial systems, and 91 percent of lending for industrial subsectors.

5. Other natural entry barriers would be associated with: a post-entry absolute advantage (related, for example, to the proprietary or closely-held nature of technology used by incumbents); or a pre-entry asymmetry (for example, incumbents may have lower production costs due to acquired experience or may command greater consumer loyalty). A special type of asymmetry is related to capital market imperfections. Generally entrants are perceived by investors as posing a greater risk, and therefore they face higher capital costs than established firms.

6. About 80 percent of promoted investments were for large dominant firms: nearly all promoted investments in cement, paper paste, fertilizer, plastics and resins, were undertaken by one of the top eight firms in the industry (World Bank 1988a, chapter II).

7. Simulation results showed the subsidy per unit of value added rising from 39 percent to 82 percent as capital intensity increased from 10 percent to 85 percent; and the unit subsidy went up from 63 percent to 75 percent as the value added share of the production value fell from 75 percent to 48 percent (World Bank 1988a).

8. In the cotton spinning industry, for example, optimal scales are in the range of 25,000 spindles per mill; the average size in Pakistan is

15,000, because it has been easier to obtain licenses for units of 12,500 spindles than for larger ones. In the cement industry average domestic plant size is 450,000 tpy, whereas efficient scales are on the order of 900,000 tpy. At the same time, with the small size of Pakistan's domestic market, the policy of fragmenting output has not prevented the degree of market concentration from remaining fairly high in several industrial sub-sectors.

9. Industrial price controls have also been shown to deter competition in Brazil, where they were introduced in the mid-1960s to help achieve price stability. By institutionalizing the frequency and method of price setting, these controls have substantially reduced price competition while facilitating oligopolistic practices (Frischtak 1980).

10. Those restrictions take the form of tariff barriers, quantitative import constraints, and a myriad of rules and regulations which constrain the flow of imports. While GATT limits the use of quantitative restrictions and tariffs, more sophisticated import restrictions like regulations concerning physical import procedures and administrative delays often hinder and prevent imports as effectively. Furthermore, production subsidies that artificially lower the price of import-competing products also function as barriers to import competition.

11. As noted in the 1988 World Development Report (p. 16), "manufacturing has seen a resurgence of protectionism, especially in the guise of nontariff barriers (NTBs) such as voluntary export restraints and import quotas. Between 1981 and 1986 the proportion of imports from North America and the European Community affected by NTBs rose by more than 20 percent. Trade between industrial and developing countries is increasingly affected by NTBs. Roughly 20 percent of developing countries exports were covered by NTBs.

12. Until recently the structure of protection in Argentina has had similar features. Tariff protection was particularly high for traditional sectors such as textiles and apparel but below average in electric machinery and scientific instruments. Similarly, the sectors most heavily protected by nontariff barriers were food products and textiles (60 percent and 49 percent, respectively), World Bank 1988a, chapter I).

13. There is an interesting symmetry here. Many of the import-substitution efforts in developing countries were undertaken by traditional importers, with their ready links to sources of

production technology, designs, and components. Over time, many of these importers became dominant producers (often in association with their foreign suppliers). With liberalization of imports and their increased penetration, these same producers, with an already established distribution and servicing network, become dominant importers. As a result, import penetration often does not pose a significant threat to the market position of major domestic producers.

14. This resembles closely the prevailing arrangement in Indonesia, where the government has granted exclusive import rights for all raw materials and semifinished inputs to P.T. Krakatau Steel, which dominates the steel industry with 65 percent of crude steel capacity and an even larger proportion in flat products.

15. If a segment of a firm's business (in this case export sales) is to influence the decisions and attitudes of management, it must have a certain minimum size. To receive significant attention and resources, the international market must be important to a large number of people in the organization.

16. There is strong evidence from individual case studies linking real exchange rates and export supply response. One such example comes from Morocco's exports of leather garments, which fell dramatically between 1982 to 1986 (its share in the world market dropped from 2.8 percent to 0.2 percent during the period) as its real exchange rate appreciated significantly relative to its competitors (India, Pakistan, Korea).

17. A note on the complementarity dimension of competition is found in Annex 2.

18. Quantitative restrictions were reduced from a production coverage of 92.2 percent in July 1985 to 23.2 percent in April 1988. During 1986, the maximum tariff was reduced from 100 percent to 50 percent. The liberalization process was accelerated in 1987, leading to a reduction in the tariff range of 0-20 percent which surpassed the target of 0-30 percent for the end of 1988. In addition, the 5 percent tariff surcharge was eliminated. As a result, the production-weighted average tariff fell from 24.5 percent at the end of 1986 to 11 percent in April 1988.

19. The auto industry, for example, has faced a complicated set of regulations including model limitation, domestic content requirements (DCR), export requirements, and foreign investment restrictions. Assembly operations must comply with DCRs of 60 percent for domestic production and 0-30 percent for exports. Auto parts produc-

ers, on the other hand, have a DCR of 60 percent on all production. Foreign ownership of Mexican auto parts firms is limited to 40 percent, while there is no limit for auto assembly companies. The more flexible regulation of assembly operations may be the reason they have been able to shift more easily to exports.

20. Detailed accounts of the changes brought about by a more competitive environment are given in *India Today* (1988). Trimming labor costs and selling nonviable units while modernizing and optimizing those remaining, has been the strategy employed by firms in sectors as diverse as cement, tractors, motorcycles, steel, telecommunications equipment, and computers.

21. In India, for example, only 43 percent of applications were approved between 1981 and 1985. The reason most commonly given by Indian licensing authorities for rejecting applications was that adequate capacity existed in the economy. Yet officials were generally limited to information on licensed capacity. Since licensed capacity would normally be an overestimate of installed capacity, the system consistently generated markets characterized by excess demand and limited competition.

22. Trade liberalization efforts in Argentina were initiated in 1986-87 to provide exporters with access to inputs at international prices. It picked up momentum as a pro-reform constituency gained strength and none of the adverse effects associated with the disastrous liberalization of the late 1970s occurred.

23. But if this process raises already high levels of effective protection for final users, steps must be taken simultaneously to lower the levels of protection to this group (*World Bank* 1988a, chapter IV).

24. If domestic producers can effectively control the distribution of imports, they may be able to avoid adjustment and continue enjoying the benefits of protection. Domestic consumers do not usually buy directly from foreign producers but from wholesale firms. If the dominant domestic producers control these wholesalers, they can shield themselves from import competition by controlling the volume of imports and not passing on the tariff reduction to consumers.

25. In Korea, credibility was promoted through the government's adherence to long-term trade objectives and policies; by setting export target systems; by negotiating and pursuing diligently specific targets; and by establishing an appropriate forum ("trade promotion" meetings)

to discuss these and other export-related matters with management of exporting firms (*World Bank* 1987).

26. For a detailed analysis, see Rhee 1985.

27. Cf. Rhee 1985, pp. 119-120. The depth of backward linkages is suggested by the fact that "...67 percent of the total value of domestic L/Cs [letters of credit] issued in Korea during 1976-78 was for the purchase of domestically produced intermediate inputs, 31 percent was for the purchase of domestically produced finished goods, and 2 percent was for the payment of subcontract fees".

28. A 1979 survey in Korea found that the total value of direct and indirect exports by "small-medium scale" (defined as those firms with more than five and less than 300 employees) amounted to 41.8 percent of total manufacturing exports in that year (Rhee 1985, pp. 119-120).

29. This might not be feasible if protection takes the form of fully binding natural entry barriers, as in the case of natural monopolies. See Annex 3.

30. For instance, in the late 1970s, Japan introduced a number of measures to assist in the adjustment of declining industries by smoothing the process of factor reallocation, especially labor. The government designated certain industries as depressed and developed basic stabilization programs to reduce capacity in an orderly fashion. Firms that scrapped capacity in accordance with these programs qualified for special loans, and displaced workers were entitled to receive extended payments for unemployment insurance, vocational training, and services necessary for reemployment. When it was judged that contraction could not occur efficiently by firms acting alone, enterprises were asked to form a designated cartel to coordinate capacity reduction (Sekigudin and Hauriuchi 1985). In the 1960s, the German coal mining industry successfully implemented similar programs to reduce capacity and output (OECD 1987).

31. "Predatory" behavior should be the object of restraint and penalty whenever two conditions are present. First, the actions of the "aggressor" firm are selective, that is, they entail targeting one or few competitors. Uniform actions such as across-the-board price cuts or broad-scale advertising campaigns are not harmful to competition. Second, differential market shares between the "aggressor firm" and its targets are sufficiently high that selective actions are necessarily anticompetitive. A large mismatch in mar-

ket shares between producers normally does not permit effective competition. The reason is that dominant firms, in addition to having access to resources which are unavailable to smaller competitors, work under different sets of incentives; equal gains in market shares translate into proportionately larger profits for the former. The outcome of a market game where the dominant producer uses selective actions against smaller competitors tends to be biased against the latter, and should be restrained by regulatory or judicial means (Shephard 1986).

32. See, for example, Krugman 1983, 1985, 1986; Venables and Smith 1986; Rodrik 1987.

33. To prod domestic firms to expand output, lower their costs (by assumption, targeted sectors would be operating under increasing returns to scale), increase shares in domestic and international markets, and shift rents from foreign producers, governments might legitimately resort to certain time-bound policies, such as capacity licensing, export and investment subsidies, tariffs, and even quotas.

34. The European experience in this respect is instructive. Attempts to target winner firms in key industrial segments failed, in large measure, through absence of competition (Geroski and Jacquemin 1985).

35. Matsuyama and Itoh (1986) argue, on the basis of the Japanese postwar experience, that it is only to the extent that protective measures are perceived to be temporary that producers have the incentives to develop new products and penetrate export markets. Although some sectors were heavily protected, protection was not accommodative of inefficiency, and there has been no major backslide in the liberalization program. Enterprises in the protected sector had the firm expectation that they could not depend on protection in the long run.

36. As in the case of perfect competition, it is being assumed here that the monopolist faces a unified market. Were it segmented, the monopolist could do even better by price discriminating consumers and charging them according to their willingness to pay, thus absorbing all their surplus. This (Ramsey) pricing strategy maximizes the monopolist's rents.

37. Nonetheless, deadweight losses would still be positive in the case of a contestable monopoly producing under increasing returns to scale. The reason is that the efficient solution (P_e , Q_e) is only attainable if the producer is willing to take losses—an unlikely market outcome—or if the

government offsets them through subsidies.

38. The concept of monopolistic competition may be regarded as a particular case of oligopolistic rivalry, with firms competing in prices and variety (of products, location, etc.). It is in some ways a blend of opposites: on the one hand, firms are assumed to be able to differentiate their products so each would face a downward sloping demand curve; on the other, free entry is postulated and new entries would continuously drive profits to zero. Product variety is a reflection of the large number of producers that populate monopolistically competitive markets.

39. Initially, the theory of oligopoly allowed only a very limited extent of strategic interaction, with moves (and threats) by one player always assumed to be credible and not generating countermoves. In limit pricing models, for example, an oligopoly would set a price sufficiently low to discourage entry; other firms would react by simply not attempting to enter. If entry deterrence was a credible or empty threat, and therefore, if the prospect of entry would or would not discipline incumbents, was not discussed in limit pricing and other early entry models (see Dixit 1982, pp. 12-17).

40. The way firms compete also affects the configuration and boundaries of markets. Market structure becomes in this sense endogenous to firm behavior, reversing the traditional assumption. Thus, as products are modified and differentiated, and niches carved out, the market is redefined and so is its degree of concentration.

41. There are other types of noncooperative fixed conjectures which might be closer to reality but are seldom used. Firms might, for example, maximize market shares taking other firms' market shares as given, subject to a minimum profit restriction. The conduct of many of the larger Japanese firms might reflect this strategy.

42. Schumpeter (1934) was the first to point out that market concentration and positive rents may be positively correlated with innovation.

43. Managers seem to respond when exposed to direct competitors working under similar conditions, using similar resources, and producing for the same market.

44. This, of course, presumes that competition from imports is effective and that there are no significant barriers to exit (or that they are removed simultaneously with the entry of imports). Moreover, the increase in efficiency resulting from the restructuring of firms—induced by import competition—may not help a country if, eventu-

ally, income losses from the shrinking of domestic industry offset the gains from greater specialization.

45. A study of Brazilian manufacturing firms establishes that the probability of firms engaging in technological activities (defined as import of technology, R&D, and process rationalization through engineering efforts) generally increases with exports and decreases with the extent of import protection (Braga and Willmore 1988).

46. A glimpse of how competitive Japan's domestic industrial market has been is suggested by its relatively low concentration ratios and considerable product overlap. This was observed in 1963, when Japanese GNP was only 15 percent of U.S. GNP. Industrial concentration was nonetheless lower in Japan. The unweighted average concentration ratio was then 37.5 percent for Japanese industries and 38.3 percent for the U.S.; the weighted averages were 35.4 percent and 40.9 percent respectively (Caves and Uekusa 1976, p. 19).

47. Hachette (1988) notes that "exports increased in real terms between 1973 and 1979 at an average rate of 8 percent per year. They increased regularly, in constant prices, and as a share of GDP. [Further, nontraditional exports were stimulated relative to copper, and they grew from 2.7 percent of total exports in 1971-73 to 34.7 percent in 1980-81]. The real exchange rate remained during this period at a higher average level than during previous decades despite declining steadily since 1976. Relatively low wages, large increases in port efficiency, and administrative expediency supported export activities. External conditions also were favorable to nontraditional Chilean export, while investment became more concentrated on exportables, while relative prices became more favorable to exports. How much of that success story can be assigned to liberalization policies and how much to exogenous circumstances is difficult to know" (pp.3-4).

48. To the extent that input markets are liberalized, the cost curves of domestic firms would be shifted down. This cost effect may offset, at least in part, the primary demand-driven net export contraction.

49. The short-run impact of increased import and domestic competition are analyzed in more

detail in the final section of this annex. While that section adopts a partial equilibrium framework, it is important to emphasize that the short-run expansionary impact on domestic demand (which makes net exports go up and down in the cases of increased domestic and import competition, respectively) as well as the contraction of sectors which are under pressure as the result of import liberalization are economy-wide phenomena.

50. In a general oligopoly model, an increase in competition by domestic or foreign firms respectively can, for example, be modelled as a change in firms' conjectural variation terms.

51. Imports will become relatively more expensive only if products are differentiated. If imports and domestically produced products are homogenous, domestic and import products have a common price that falls as a result of the increasing competition.

52. If firms' marginal costs are so high that outputs are determined by equalizing marginal costs and domestic marginal revenues (instead of world market price), in which case firms produce only for the domestic market and exports are zero, a tariff reduction will reduce firms' outputs (by lowering their marginal revenues). This will lead to an additional increase of imports as the difference between domestic demand and domestic production widens.

53. Note in figure 2 of Annex 1 that it is always efficient to expand production towards Q_e , since in the interval (O, Q_e) , the consumers' willingness to pay (as given by the demand curve) is always greater than marginal cost, and whatever losses occur between due to the difference between average cost and price, they merely represent a pure transfer between the Government and consumers.

54. The fact that most public utilities in developing countries are state enterprises is explained in large part by the difficulties of balancing the interest of consumers (and thus moving toward efficient prices and an adequate supply of services) and producers (and thus allowing for significant rent-absorption). This was aggravated by the perception that private owners of these utilities had undue influence over government decisions.

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