INDUSTRIAL POLICY

AND THE

INTERNATIONAL ECONOMY

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The Trilateral Commission

Summary of report on pages 67-70
This report was prepared for the Trilateral Commission and is released under its auspices. It was discussed at the Trilateral Commission meeting in Tokyo, on April 22-24, 1979. The authors, who are experts from North America, Western Europe and Japan, have been free to present their own views; and the opinions expressed are put forth in a personal capacity and do not purport to represent those of the Commission or of any body with which the authors may be associated. The Commission is making this report available for wider distribution as a contribution to informed discussion and handling of the issues treated. This report is part of a two-stage project of the Commission and the Atlantic Institute for International Affairs in Paris. The second stage will be a more extended study of industrial policy, carried out under the Institute's auspices.

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AND THE
INTERNATIONAL ECONOMY

Report of the
Trilateral Task Force on Industrial Policy
to
The Trilateral Commission

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The Trilateral Process

The report which follows is the joint responsibility of the three authors of the Trilateral Task Force on Industrial Policy. Although only the authors are responsible for the analysis and conclusions, they have been aided in their work by extensive consultations. In each case, those consulted spoke for themselves as individuals and not as representatives of any institutions with which they are associated. The authors have been particularly aided by Eisuke Sakakibara, Associate Professor of Economics at Saitama University, and Wolfgang Hager, Senior Fellow of the Research Institute of the German Society for Foreign Affairs, who participated throughout the course of the project. Other consulted include the following:

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Representatives from the following Japanese organizations and corporations participated in the task force seminars on August 30, 1978 or March 1, 1979 in Tokyo:

Arabian Oil Co., Ltd.
Bank of Tokyo, Ltd.
Dai-Ichi Kangyo Bank, Ltd.
Federation of Economic Organizations (Keidenran)
Hitachi, Ltd.
Industrial Bank of Japan, Ltd.
C. Itoh & Co., Ltd.
Kajima Corporation
Komatsu, Ltd.
Kyodo Press
Long-Term Credit Bank of Japan, Ltd.
Mitsubishi Bank, Ltd.
Mitsubishi Corporation
Mitsui Bank, Ltd.
Mitsui & Co., Ltd.
Nikko Securities Co., Ltd.
Sony Corporation
Sumitomo Chemical Co., Ltd.
Sumitomo Corporation
Sumitomo Metal Industries, Ltd.
Toa Nenryo Kogyo, K. K.
Tokyu Corporation
SCHEDULE OF TASK FORCE ACTIVITIES:

October 28, 1977 — Pinder, Diebold, Hager, Yamamoto and a few others meet to discuss task force concerns in Bonn, just after Commission plenary meeting.

March 3, 1978 — Authors meet in Bellagio, Italy.

April 27 — Diebold consults with Canadian experts in Montreal.

June 14 — Authors and special consultants meet among themselves and with international group of consultants in Washington, D.C., just after Commission plenary meeting. Pinder has prepared first partial draft for discussion.

August 2, 23 and 30 — Hosomi and Sakakibara meet with Japanese consultants in Tokyo.

September — Second draft completed.

September 21 — Diebold consults with Canadian experts in Ottawa.

October 10-12 — Authors, Hager and Okumura meet among themselves and with European consultants in Paris.

November — Third draft completed.

December 5 — Authors brief European members of Trilateral Commission in London on progress of project.

December 5-6 — Authors and special consultants meet in London to discuss third draft.

Late December — Fourth draft completed.


January 30 — Diebold meets with U.S. consultants in New York City.

Early February — Fifth draft completed.

February 21 — Pinder and Hager meet with international group of consultants at the Institute of Development Studies, University of Sussex.

February 28 - March 3 — Authors and Sakakibara meet in Tokyo with Southeast Asian and Japanese consultants, with Japanese Commission members, and among themselves.

March 5-6 — Diebold meets with Canadian consultants in Edmonton in context of industrial policy colloquium organized by the Canadian Group of the Trilateral Commission and the Institute for Research on Public Policy, Montreal.

Late March — Sixth draft completed and circulated to Trilateral Commission members.

April 24 — Draft report discussed at Trilateral Commission plenary meeting in Tokyo.

April 24 — Authors meet to make final revisions of text for publication.
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I. INTRODUCTION

The 1970s have been years of severe stress in our economies. Inflation in most countries has remained high. Unemployment has been stubbornly persistent. Many industries have suffered from slack markets, dismissals, low profits and low investment. There has been a search for an explanation of these troubles and for policies that will put them right.

Many have stressed the supply of dollars and the coinciding of pre-electoral monetary excesses in several countries before 1974, which stoked the commodity boom and the upward thrust of energy prices. The consequent inflation, unemployment and external deficits posed an extraordinary problem for global demand management. There is a proper determination not to allow such excesses to recur. Yet when stagflation and industrial malaise are still so pervasive over five years after the abnormal turbulence began, it is natural to ask whether reasonably prudent demand management is by itself enough to cure these modern economic ills.

A. THE CHALLENGE OF STRUCTURAL CHANGE

It may well be that the difficulties are not only cyclical, and hence amenable to demand management, but also structural: They may require a reallocation of resources in the economy which takes time and money to achieve. So long as major structural changes are required, one could expect high unemployment or high inflation or both, as the forces for change press against established positions in the economy.

There are indeed grounds to believe that the contemporary economy is squeezed between growing pressures for change and growing resistances to them. There are great changes in the size and structure of populations, the composition of demand, the use of technology and the relationship of these with the earth's resources. While technological advance has been rapid for over a quarter of a century, a further acceleration is expected with the new developments in microelectronics.

The imbalance between the distribution of people and of production throughout the world is being adjusted by the emergence of the newly industrializing countries; and the imbalance is so big that the process still has a very long way to go, with vast implications for the economic structure of the industrialized part of the world. While this process is a continuing one, it is also more rapid than it used to be, because of the speed with which new technologies can be applied in a growing number of countries outside the old industrial centers.
Social and political changes have introduced strong new demands, such as protection of the environment, which also impose a need for industrial adjustment.

The cost of structural changes and the time they take have also escalated. Many industries have become so skill- and capital-intensive that costly investments are lost if production is wound up; and their replacement by new forms of economic activity may require still more costly and time-consuming investment in new skills and equipment. Rather than close down capital-intensive plant, manufacturers are inclined to continue production even if competition has forced prices down so that capital costs are no longer covered—unless some contribution to the capital costs is better than none. Legislation and practice on dismissals have extended this problem in many countries by giving labor some of the characteristics of a fixed cost. Thus overcapacity in an industry can last a long time, with firms that have big financial resources or largely written-off capital maintaining some production without generating the ability to invest in future development.

The costs and delays in structural change that are built into the modern economy are supplemented by social and political forces. Where a decent living standard is provided for the unemployed, this discourages occupational and geographical mobility. The immobility of workers contrasts with the mobility of enterprises, causing social tensions and unemployment. The workers' reluctance to accept the costs of change is articulated in many countries by strong trade unions. Interest groups press for subsidies to prevent the closure of plants. The large part of national product in the public sector is yet more open to political pressure, often from groups defending the status quo. Pressure for greater equality erodes the incentives for firms and individuals to accept the inconvenience of change. Many of these developments represent choices which societies and individuals are entitled to make. But they must recognize that there may be a price to pay, in a loss of economic efficiency and hence of real income.

Unemployment and low growth accentuate the resistance to change. People will defend their jobs more tenaciously if a new one is hard to find. Firms seek protection more readily if new competitors enter a static market. There is now a school of "growth pessimists" who expect that growth will continue at present rates and unemployment persist for many years. If economic and social resistances to structural adaptation are a brake on growth, this brake may be lifted by policies to reduce the economic and social costs of change and to increase the rewards for accepting it. The growth rate could in this way be increased and the costs and inconvenience of change thus further reduced. But because
the structural characteristics of the modern economy will still be there
when employment and growth are high, the need for policies for struc-
tural adaptation will remain, even if the demand for them may be less
intense.

B. STRUCTURAL AND INDUSTRIAL POLICIES

Whether this rationale for policies to influence the structure of the
economy is accepted or not, it can hardly be denied that such policies
exist. The writers of a report about them are not confronted by scarcity:
The problem is, on the contrary, their abundance and variety.

It is hard to define a target which is so complex and moving so
fast. In a sense, almost all policies are relevant since they affect the
various industries differently. For instance, reflation and deflation have
a disproportionate impact on sectors of engineering. Since the costs of
adjustment to such swings are borne both by particular sectors and by
the economy as a whole, these costs need to be assessed and the system
of policymaking should be able to take them into account. But the
structural effects of global demand management are not the subject of
this report. Nor can we give adequate attention to one of the measures
of greatest importance to industry: taxation. We are concerned here
with policy whose main purpose is to influence the economic structure.

A number of branches of such policy have a powerful influence on
the structure of industry, including regional, capital market and man-
power policy. These can be used to achieve the same objectives as
industrial policy more narrowly defined, and the greatest impact on an
industrial problem will often be made by a combination among them.
An effective policy system must coordinate them closely. But here again,
a report of moderate length cannot explore all of these complex issues
in any detail.*

We concentrate, therefore, on industrial policy that aims directly
to affect the structure of industry rather than influencing it indirectly
through a primary emphasis on regions, capital markets, the labor force,
or health, safety, and the environment. Thus we include policies directed
at sectors of industry or types of enterprise; promotion of innovation or
research and development; the encouragement of mergers; and not least
importantly, in market and enterprise economies, competition and anti-
trust policies. Rather than use more space on definition, we hope the
reader will recognize this ungainly animal in the examples and analysis
that follow.

*Manpower policy will be considered in a forthcoming Trilateral report on the
implications for employment of technological and structural change.
C. INDUSTRIAL POLICY
AND THE INTERNATIONAL ECONOMY

At least some of the industrialized countries find it hard to adapt their systems of economic management to make effective structural and industrial policies. This difficulty is compounded by the internationalization of the modern economy. The growth of trade, of capital movements, of multinational companies, and of technological transfers relates to these policies in two ways.

First, the international movement of goods or factors of production can undermine national policies. Monetary policy can be upset by international movements of capital, and industrial policy by international trade or multinational companies. The reaction can be either to abandon the affected national policies, to seek the same result through international cooperation or integration, or to protect the national economy from the international influence.

Second, national industrial policies can undermine the international economic order. They can distort international trade by impeding imports or subsidizing exports, either of which invites retaliatory distortion. Where national governments exclude international influence by means of protection, the separation of markets can be brutal and direct. An accumulation of such acts erodes the system of trade cooperation that has been so carefully built up since 1945 and raises the specter of a return to the condition of the 1930s, with escalating political conflicts and a return to autarky and hence to a lower economic and technological level.

The conventional response in the GATT has been to try to remove the national policies that distort trade. But their social and political importance and the character of the instruments with which they are implemented carry some of these policies beyond the reach of this conventional approach. The new codes drawn up in the Multilateral Trade Negotiations do reach beyond the classical instruments of trade policy (tariffs, quotas, export subsidies) to apply to some major instruments of industrial policy (domestic subsidies, public procurement) and aim not to suppress the policies but to modify them in so far as they affect the trade of partner countries. To resolve the international conflicts while achieving the legitimate aims of industrial policy, however, it may be found necessary to go farther towards cooperative or even integrated industrial policies, as has been done within the European Community.

The experience of the Community, while it shows that this can be done, also demonstrates the obstacles—in the divergences of national
policies and, behind them, the diversity of national economic structures, political systems, societies, cultures and histories. If this diversity is wide among the Community countries, it is wider still among the industrialized countries as a whole. Since the divergent national policies stem from these diverse national contexts and consequently differing national needs, the conflicts to which they give rise can hardly be resolved without a full understanding of the differences. This may require economists to concentrate more on the old subject of political economy than some of them have done in recent years.

Our report makes a modest attempt to illustrate the differences that must be understood. After giving some examples of industrial policy to help flesh out the definition of the subject, and then examining some of the reactions and worries to which such policies give rise, we include a chapter on industrial policies in each of our three regions. We then consider various types of industrial policy and criteria to evaluate them. To save the reader from any unnecessary suspense, we can say at the outset that we as a group are fairly agnostic as to specific policies, partly because we differ somewhat among ourselves on the issue, and partly because of a certain prudence about laying down general principles to govern highly complicated particular cases. We do, however, agree on a number of criteria which we hope may be of some help to those who have to deal with the particular problems.

We end with a chapter on the international aspects of industrial policy. Here again we are reluctant to lay down the law on specific industrial cases. But we are united in a profound conviction than an international framework must be established to resolve the potentially dangerous conflicts and to help our countries harmonize and support their mutual objectives and those of their partners in the other regions of the world.
II. THE RISE OF INDUSTRIAL POLICY

A. EXAMPLES FROM EARLIER DECADES

Industrial policy is not so new a concept as much of the contemporary discussion about it assumes. One of the longest standing examples relates to the oldest industry: agriculture. From the New Deal in the United States to the Common Agricultural Policy of the European Community, governments have sought to stabilize or raise prices and farmers’ incomes by using price controls, support buying or production controls, and governments have also sought to strengthen the industry by research, development and dissemination through extension programs. Such policies have entailed extensive controls over imports and the subsidization of exports on a scale quite different from that in manufactured goods. But they are used by almost all governments, and agriculture has been among the leading performers in the speed at which it has raised productivity and reduced its working population.

Policies to protect or develop sources of energy likewise have a long history: Coal is an example in many European countries, while the emphasis has been on oil and gas in the United States. Since 1973, governments have struggled with varying success to form comprehensive energy policies, which are important both for the energy industries themselves and for energy-related industries such as automobiles and metal production.*

Textiles, perhaps the oldest of manufacturing industries, also has a long tradition of recourse to industrial policy. Much of this has taken the form of protection by high-wage countries against low-wage imports. But for half a century public policy has, in a growing number of countries, gone beyond defense of the status quo to support the reduction of capacity and the redeployment of workers into other activities.

For heavy industries such as steel and shipbuilding in the 1920s, joined by basic chemicals in the 1930s, the problem was a mismatch between capacity and demand. The industries themselves reacted to this by explicit or informal cartels controlling prices, production and investments. In the United States these were countered by the anti-trust laws: perhaps the oldest living example of an industrial policy, launched on a wave of populist reaction against big business late in the 19th century.

*As a recent Triangle Paper has dealt extensively with energy, we have not thought it necessary to discuss this subject in detail or trace out its effects on other aspects of industrial policy. See John C. Sawhill, Keichi Oshima and Hanns W. Maull, Energy: Managing the Transition (New York: The Trilateral Commission, 1978).
The encouragement of defense industries is a most ancient concern of governments, which has often led to a fallout into technological development for civil purposes. The most visible recent examples have been aircraft, nuclear energy and computers, promoted by public expenditure on research, development and the purchase of products—with industrial development (and not only defense requirements) as an increasingly important aim.

A number of countries have also adopted more general industrial policies, in order to break out of a period of difficulty or stagnation onto a path of faster growth. The example of the early French Plans is well-known, when public funds were used to equip basic industries, not only to recover from wartime damage but also to overcome the secular stagnation of the French economy and modernize its structure. The German use at the same time of the Kreditanstalt für Wiederaufbau, in order to rebuild basic industries for the needs of peacetime, is less well-known but was equally successful. Both these examples were facilitated by counterpart funds from Marshall Aid, which was itself a most notable example not only of balance of payments support but also of an international industrial policy, designed to achieve the specific purpose of economic recovery in a limited period. Soon afterwards, the European Coal and Steel Community was established by France, Germany, Italy and Benelux, and endowed with instruments of industrial policy such as investment support and price regulation, as well as of manpower policy and adjustment assistance.

The case which has become most renowned, however, is that of Japan, where government controls and assistance helped industry in the 1950s to lay the foundation for economic growth and catching up with the advanced industrial countries. The system of controls and incentives, behind high protection against both imports and foreign investment, was considerably relaxed in the 1960s when self-sustaining growth had been achieved. However, there continued to be good working relations between government and business for the pursuit of agreed ends, and the foreign presence in the form of American- or European-controlled companies or the supply of manufactures from those areas was smaller than in most other OECD countries.

B. PROLIFERATION IN THE 1970s

Many of these examples of industrial policies from earlier decades were a reaction to recession or slow growth. Thus it should cause no surprise that such policies have proliferated in the 1970s.
Import controls and measures for redeployment have spread far beyond textiles to other labor-intensive industries such as footwear, consumer electronics and light engineering. This has followed the impact of the recession combined with the rise of powerful exporting industries in the so-called newly industrializing countries—excluding South Korea, Taiwan, Hong Kong, Singapore, the Philippines, India, Pakistan, Brazil, Mexico and a number of East European countries.

Steel and ships are again affected by low demand and overcapacity, with competition from newly industrializing countries added to that between Japan, Western Europe and North America. But they have been joined by plastics, man-made fibers, refineries and numerous branches of engineering; and many producers of automobiles and other consumer durables, which were at the heart of the long boom of the 1950s and 1960s, have also faced serious difficulties. The result has been numerous acts of protection, of support for specific industries and enterprises, and general measures to revive industrial investment.

The drying up of employment opportunities in these sectors has intensified the efforts of governments to promote industries where growth may lie in the future. This explains the strength of German reactions to attempts to control international trade in nuclear reactors; the big public funds allocated by Japan to develop data-processing equipment; and the jockeying for position among governments for the development of new generations of aircraft. Beyond these classical high-technology industries, governments have been seeking ways to promote new growth in sectors such as microelectronics and biochemicals. Beyond the concern with economic efficiency, moreover, industrial policies are now often motivated by social values such as a good environment or the humanization of work. Moreover, measures intended to strengthen or modernize an economy are related to national power; and in improving security, industrial policy is linked with foreign policy.

C. WORRIES ABOUT INDUSTRIAL POLICY

Of the examples of industrial policies from earlier decades, a number seem to have strengthened the industries they were intended to benefit with little or no harm done to others. As the costs of leaving industries to run down without any action by the public authorities can be large, measures to ease this process make good sense when they are well-executed. There is no real justification for a priori and ideological pronouncements of anathema on industrial policy as such. But the same principle applies in reverse: To call some action industrial policy is not to confer on it some superior status or implicitly approve its aims
or methods. There are many examples of failure. Much of what governments do in the name of industrial policy is simply to continue old-fashioned protectionism by more sophisticated means, which is costly to their economies and to others as well. Thus the proliferation of industrial policies during the recession of the 1970s has given rise to many legitimate doubts and criticisms.

Blanket judgments about industrial policy are hardly possible, considering the long and various catalogue of its instruments: taxes; rebates or subsidies to capital or labor; financial aid, including low-interest loans and access to public funds; government purchasing; public support for research and development; licensing, planning permission and other physical controls; laws governing competition and commercial or industrial behavior; tariffs and other controls over foreign trade. Inevitably, most industrial policy discriminates in favor of sectors, regions or firms; it puts burdens on some parts of an economy for the benefit of other parts; the interests of foreigners, who do not vote, receive less attention than the domestic pressures on governments. While some measures are clear and straightforward, others are complex and opaque. Their full effects may be hard to predict and they can complicate economic life, putting burdens on business and further swelling our already large bureaucracies.

It is inevitable, therefore, that there should be great differences of opinion about the desirability of most measures of industrial policy, whether the approach is that of the objective analyst or the interested party. In democracies such differences complicate the process of formulating policy, of reaching agreement on suitable measures and then of carrying them out. Consistency and continuity are hard to achieve and so the intended effects of measures may be lost. The effort to balance conflicting domestic interests may lead to measures that cancel one another; what one country does can be offset by the response of another.

The validity of some of the worries about industrial policy is underlined by experience. Although agriculture has undergone tremendous changes in the last half century, the agricultural policies of the main industrial countries have long been a source of despair to those concerned with fiscal economy, trade liberalization and the wise use of resources. While the circumstances of farming are very different from those of most kinds of manufacturing, the approach to policy and even its instruments have been similar enough to some kinds of industrial policy to serve as a warning.

Another warning comes from the experience with textiles. Beginning with an American initiative in the early 1960s, the principal industrial countries worked out an agreement covering cotton textiles
that permitted far greater restriction of imports than was possible under the rules that applied to other manufactured goods. The first targets of North America and Western Europe were Japan and Hong Kong, but soon much of the developing world was tied up in restrictive bilateral arrangements. When in the early 1970s a similar arrangement was extended to man-made fibers and woolens, the machinery for international surveillance was slightly strengthened but with no great results. The margin by which quotas were to increase each year was raised from 5 to 6 percent; but when the agreement was renewed in 1978, it was made somewhat more restrictive.

The full results of these agreements have been too complex to be appraised here. Exports from developing countries have grown more than might have been expected and the industry has spread to new countries. It was not altogether unreasonable to think, at the beginning, that agreements of this sort might be used to bring about the orderly transfer of a labor-intensive industry to the developing countries, especially if the alternatives were national measures of protection or, for that matter, disorderly dislocation of workers and businesses in the older centers of production. But sceptics can claim that in many of the industrialized countries little has been done to use the intervening time to promote these adjustments, and that the burden of proof must therefore lie on the proponents of any similar schemes.

Another kind of cautionary tale has been provided by some of the record of governmental action to support the introduction of new industries using high technologies. Many of the results cannot be highly regarded by those with a reasonable concern for the efficient and economical use of resources. The Concorde is everyone’s favorite example, perhaps because it combines measurable cost, international cooperation, technical success, economic failure and high visibility. But there are also less clearcut cases which tell much the same story, though sometimes there is room for doubt as to just what the proper measure of success should be. It is hardly surprising that legitimate worries about what can be done in the name of industrial policy should have caused some observers to conclude that it is better not to embark on so risky a set of measures that are also so easily open to abuse. But without dismissing these bad experiences, one can wonder if they may not have contributed more than their fair share to the kinds of misunderstandings that have surrounded discussions of industrial policy.

One major source of misunderstanding is that many people see industrial policy as a denial of the value of market forces. This should not be so. Some measures of industrial policy are designed to make markets work better than they would otherwise. Most sound industrial
policy works with underlying market forces, not against them. Though it may moderate them in the short run, long-run success almost always depends on making use of the economizing and disciplinary effects of competition. When a national industrial policy does not accept the international competitiveness of its domestic industries as the standard to which it aspires, the reasons for that should be clear as well as the costs of these measures to the rest of the economy. As the results cannot be fully predicted, such measures should be kept under constant scrutiny.

Worry about the bad effects of many industrial policy measures has, quite properly, been heightened by the recession and the troubled and incomplete recovery from it. As causes are in doubt, remedies may be misdirected. Measures that would be suitable to cope with cyclical phenomena of limited duration could make structural difficulties worse. Pressures on governments to act increase greatly but their ability to respond constructively is reduced by unemployment, unused capacity, limited markets, inflation, conflicting claims on swollen budgets, expectation of slow growth and uncertainty which holds down investment. The sensible balancing of trade-offs becomes more difficult and so does the firm adherence to the distinction between temporary and lasting measures. There is good reason to fear that steps taken with the best intentions will produce bad results and may impede the recovery they are intended to advance.

In these circumstances many people in all our countries have rallied to the view that the role of government in economic life should be reduced. The results take many forms: limits on public spending, the elimination of long-standing regulatory arrangements, reduced discretion for governmental authorities in monetary and other fields. A long accumulation of regulatory measures, many of them highly desirable and others not well thought through, has added substantially to the costs of some industries and, in some cases, reduced productivity. The negative reaction will doubtless ensure the correction of some of the errors made in past industrial policy. However, there is little evidence that the body of opinion favoring reliance on market forces alone—and willing to take the consequences of letting adjustment come in that form—is large enough to offset the pressures calling for various kinds of industrial policy measures. And even if some countries were to pursue that course more consistently, they would find themselves faced with the continued pursuit of industrial policy in other countries which would produce what would be regarded as unfair competition and trade distortion requiring retaliation or justifying protection. Consequently, while full weight needs to be given to the advantages of limiting
governmental intervention and correcting past excesses, we do not see it as realistic to think of a major diminution of industrial policy in the industrialized countries. Such policy is more likely to increase; and therefore clarification as to aims, results and criteria by which to judge them is needed more than ever.

Nowhere is the danger from confusion and misperception more important than in international relations and especially the relations among our three regions (and within Western Europe and North America). Because industrial policy measures are essentially national (or Community-wide), they have an inherent bias that is bound to make others suspicious of their effects. As industrial polices have not sprung full-blown into the world, they carry a freight of past experience in trade, finance and economic relations generally. Already difficult problems are made worse by distortions based on the tendency to see friends and allies as stereotypes. What these tend to be—and the errors they lead to—are sketched in the next few paragraphs which, we repeat, represent not balanced or correct views but what all too many of our compatriots tend to believe.

D. TRILATERAL STEREOTYPES

The Americans, who took the lead in establishing the postwar international order and supported the resurgence of Western Europe and Japan, tend to feel that their partners not only do not carry a share of responsibility commensurate with their strength, but do not even live up to the rules. The partners feel that Americans' assumptions of free trade virtue and international responsibility are belied by high protection, the use of massive state power in developing advanced technology, the extra-territorial enforcement of anti-trust legislation, and a focus of economic and monetary policy on American domestic problems without enough regard for the serious international implications.

Europeans feel that they offer the most open trading area in a largely protectionist world, that their level of social development is threatened by competitors with lower social or environmental standards, and that their political system, combining the governments of small and medium countries with the semi-developed institutions of the European Community, is weak in negotiating capacity compared with the United States or Japan. Others tend to see the Europeans as using their great commercial bargaining power in mercantilistic ways, perhaps going rapidly protectionist, and refusing to adapt to new economic needs. They insist unreasonably on a policy of agricultural self-sufficiency, continue out-of-date quantitative restrictions on Japanese goods and
become rigid in international negotiations because of their internal bargaining and complex policymaking.

The Japanese see themselves as a vulnerable island in a hostile world economy, who defend themselves by being efficient, hard-working, thrifty and enterprising; and whose only faults are to make things that other people want to buy and to have a political system that is consensus-oriented and hence slow to take decisions in response to their partners' requests. Their partners have great respect for Japanese achievements, but feel that these are not matched by sufficiently fair and cooperative behavior in the international economy. The huge Japanese firms are suspected of using their profits on some goods to subsidize the sale of the products they select for export, until they have destroyed the competition. Japanese economic institutions and cultural patterns are thought to be so resistant to imported manufactures that the market is largely impenetrable despite its formal liberalization. These export and import policies seem designed to solve Japan's employment problems by exporting unemployment elsewhere. While Japanese firms apply a sophisticated and highly effective form of oligopolistic competition at home, this oligopolistic structure appears internationally disruptive because it seems not to apply the principle of give-and-take in the international economy.

Canadians see themselves as people whose problems (and only too often whose existence) are overlooked by the others. More highly dependent on international trade than the United States, Japan or the Community, they feel that they are alone in not being part of a large market; insofar as their economy is integrated with that of the much larger United States, it makes them uncomfortable. Long-standing arguments about Canadian "identity" reflect domestic disagreements about what degrees and kind of nationalism or internationalism best serves national interests. While many Canadians see their government as a conscientious Boy Scout in world affairs, foreigners are more apt to detect an effective if often quiet pursuit of special advantages, not least in trade and industrial policies.

To the less developed countries, the trilateral three all seem to load the dice in favor of themselves by the use of their economic power. The trilateral governments stress principles and the need to conform to economic "laws" that strike the LDCs as suspiciously well-suited to preservation of the status quo and blind to the needs of new nations. Sermons on the virtues of "the market" and "free enterprise" appear as sanctimonious if not altogether hypocritical cloaks drawn over the power of the multinationals to dominate the market. While professing to understand the nationalism of the youthful nations, the governments
of the industrialized countries resist many of its manifestations and sometimes retaliate. They resent the apparently unreasonable nagging of the less developed and increasingly emphasize the need to find ways of applying reasonable trade rules with some element of reciprocity to them.

Most of these views are doubtless near enough to aspects of the truth to enable people to sustain belief in them. But when they harden into stereotypes that stand in the way of mutual understanding, they are a danger to our economic and political health. Our economies are now so interdependent that we must have stability in our economic relations and a common approach to the management of our common problems. To achieve this we need to accept that our countries have great variety in their cultural patterns, social preferences, political styles and economic structures which will cause them to deal differently with their industrial difficulties; but equally, we need to understand enough about our common problems, as well as our different reactions to them, to enable us to resolve them in compatible and cooperative ways.

It is in this spirit that we go on to consider the role of industrial policy in our three areas and then in the international economy as a whole.
III. JAPAN, NORTH AMERICA, WESTERN EUROPE

All the industrialized countries have taken action to deal with the problems with which this paper is concerned. But their policies have been widely different, reflecting deep differences of politics and culture as well as economic structure. If these divergences are not understood, there will be increasing conflicts that could endanger the international system. With better knowledge about each other's policies and the reasons for them, we will be able to negotiate accommodations more effectively. More positively, we may learn how to improve both our own policies and the international system itself. This section outlines some of the characteristics of industrial policies in Japan, North America and Western Europe.

A. JAPAN

The rapid growth of Japan's gross national product, averaging 10 percent per year between 1955 and 1970, has aroused both interest and suspicion about the way industrial policy has been conducted there. Developing countries, particularly in Southeast Asia, have seen it as a model to emulate while industrial countries have criticized it as a system of hidden subsidies, giving unfair competitive advantage to Japan.

The postwar economic and political system in Japan, including industrial policy, needs to be seen in a broader context. First, it is not export but domestic demand that was the major force behind the rapid growth. The average share of exports of goods and services in GNP during the high-growth period (1955-70) was as small as 8.5 percent. Secondly, it was the energetic private sector and not the control-oriented government that was the major contributor to growth.

The political stability and the government's conviction as to the merits of the market mechanism created a very favorable environment for the development of an efficient business sector. It was within this environment that the government acted to stimulate and supplement private initiatives in the market. A national consensus for catching up with the industrialized Western countries made it easier to create this cohesive economic and political regime where private and public sectors could complement each other so effectively. But, to repeat, the government's industrial policy was a catalyst for energetic private initiatives and entrepreneurship rather than the prime mover of the system.
The other conditions which combined to produce Japan's virtuous circle of growth included a labor force of high quality, a fluid social structure which rewarded education and ability, loyalty to corporations (associated with the practice of lifetime employment), the import of innovations to satisfy an increasingly sophisticated mass consumer market and the favorable international environment based on the Bretton Woods system.

Japanese industrial policy was developed in these favorable conditions. During the high-growth period, catching up with the industrialized countries was the clear national goal, which could be achieved only by industrialization as Japan has never been blessed with natural resources. So there was wide popular support for the efforts of government to supplement business to achieve this aim.

**Stages of Postwar Industrial Policy**

The history of Japan’s postwar industrial policies can be divided into four periods. The first started in 1945 and lasted until 1952. It was a period of recovery from wartime destruction and basic industries such as electricity and coal were restored under a control-oriented regime. At the same time, however, the foundation was laid for the management of a market economy activated by the price mechanism on the basis of private enterprise. The Zaibatsu (big financial combines) were dissolved and anti-trust laws enacted.

The second period was from the end of the Korean War to 1960. Basic industries, together with new industries, were developed and firmly established. An indicative Five-Year Development Plan and temporary measures for recovery were enacted to foster the development of the steel, synthetic textile, petrochemical and machinery industries, as the first steps towards catching up. There was little competition from imports as a result of the foreign currency quota system adopted to protect the balance of payments. This was one of the factors that enabled an industrial promotion policy to be carried out so easily. Abundant loans from the official financial institutions also played an important role in the development of industries. In this period of tight finance, when corporations lacked internal resources and had to depend chiefly on borrowed money, such financing supplemented loans from private financial institutions both quantitatively and qualitatively. Without this financial aid, it is doubtful whether the industrial recovery policies would have worked effectively enough. Such supports were not decided by the government alone, however. A council whose members included government officials, representatives of industrial groups and scholars was set up to formulate and implement the support plans. These government supports
were agreed upon between the government and the private sector, on the initiative of the latter. For these reasons the support plans worked all the more effectively. At the same time, managers in those days were very much concerned with the national interest besides their own profit, and this also contributed to the effectiveness of industrial policy.

The third period was from 1960 to the oil crisis. This was a time of liberalization and internationalization of the Japanese economy, after the industries had been firmly established. The industrial policies of the second period still had some importance until around 1965, but the emphasis gradually shifted. Liberalization of trade and exchange, decided upon in 1960, was carried out as scheduled. Japan obtained membership in the OECD in 1964, and this entailed an obligation to liberalize further. Thus trade and capital had been almost completely liberalized by the time of the oil crisis although some exchange controls remained until the late 1970s.

The industrial policies of this period were based essentially upon international competitiveness. Japan liberalized those sectors that had become competitive with foreign companies. While the policies of the second period were designed to establish the Japanese industries, those of the third period were more passive and aimed at “gaining time.” This “time” was important for those sectors that had not caught up with the industrialized Western nations, and many used the time to do so. Not only was the domestic market opened, but overseas markets were also exploited actively, with the help of market research on various regions by JETRO, leading to the increased export ratios of many Japanese industries today. In the latter half of this period, more importance began to be given to various policies to harmonize industry with the community (e.g., pollution control and energy-related policies). Thus it was also a time of transition to the present fourth period.

By the time of the oil crisis, the goal of catching up had almost been achieved, in terms of living standards and the size and turnover of enterprises. But no new national goal has been articulated, and new conflicts among different social and economic groups and between private firms and public authorities have arisen, in the difficult circumstances of high energy prices, the rapid rise of the yen, and a domestic imbalance of industries within the now largely internationalized Japanese economy. During the time of catching up, a policy like that of “descending a river” was enough. Now Japan is out at sea and must navigate on its own and move under its own steam.

Need for a New Guiding Concept

The new industrial policy must take account of new factors, on which
industry has not yet reached a consensus because of differences among the interests of various industrial groups. Industrial policy is therefore now in search of a direction in which to advance. The problems that the Japanese economy and industry must solve have reached the same level as those confronting the other industrialized countries.

The "industrial coordinating policy" is an example. The jump in energy prices and a shrinkage of demand after the oil crisis, the catching up by some newly industrializing countries, and the recent sharp appreciation of the yen have caused there to be a group of chronic recession industries, often called "structurally depressed industries," such as aluminum, shipbuilding and textiles. The industrial coordinating policy aims to lead them towards equilibrium at a lower level of capacity. During the period of high economic growth such policies were necessary only for certain exceptional sectors such as the coal industry, and redeployment was facilitated by the growing employment opportunities elsewhere. The "Temporary Law for the Stabilization of the Specific Structurally Depressed Industries" has now been enacted, and has provided for the use of councils consisting of government officials, representatives of industrial associations, and persons of learning and experience, to examine concrete measures including in particular equipment adjustment (scraping, suspension of operations, etc.). This temporary law is not a new idea in Japan but simply a variant of the so-called "recession cartels," which were sanctioned by the Fair Trade Commission and MITI for hard-hit industries during earlier recessions. These recession cartels were used to rationalize the industry in question by persuasion rather than cutthroat competition. They worked well since the recessions were relatively short. But because of the complex state of domestic and external interests now and the new divergences between industrial policy and corporate interests and profits, one should not be overly optimistic about their ability to deal with the problems today.

In these circumstances, there seems to be a need to develop some new concept to guide the necessary structural changes. Along with the efficiency which had traditionally been emphasized, such new concepts as social costs, international coordination, and stimulus for new entrepreneurship need to be introduced.

With regard to social costs, environmental pollution and concern for social capital such as sewage and parks which are external to the private market need to be given much more attention than before. The need to activate new entrepreneurship becomes greater as the economy reaches the stage of maturity. At the same time international coordination has become vital. Quite often, lack of such coordination has
resulted in international pressure which has led to the strengthening of controls, for example voluntary export controls. The continuation of such pressures and reactions may undermine the efficient market mechanism and healthy entrepreneurship. Thus it would benefit both Japan and other countries to open the Japanese domestic market much more than before. Of course, to achieve such an objective strenuous efforts on both sides are necessary: marketing efforts by foreign suppliers as well as administrative supports by the Japanese government. Some efforts of this kind are already under way, such as the Import Fair sponsored by MITI and the establishment of the Trade Facilitation Committee between the United States and Japan.

It has become more difficult to carry out industrial policies given the breakdown of the earlier consensus focused on effective use of the market mechanism to achieve economic growth. The need for coordination of the private and public sectors is, however, still as essential as before despite the disappearance of the common objective of catching up. The effective implementation of energy policy, the structural transformation of industry to match the new international environment, and concern for public welfare all point to the importance of such coordination between business and government.

B. CANADA

Like Japan, Canada is a country whose industrialization is largely a twentieth century phenomenon and which depends heavily on foreign trade (with a much higher ratio of trade to GNP than Japan). Fishery is important to both but in most other respects the contrasts are great: Canada's large area and sparse population (to which immigration has made a major contribution throughout modern times), wheat from the prairies, oil, gas and other raw materials.

There is also a great interest in finding the best possible industrial strategy. Some Canadians say they practically invented the subject since the government has always had a prominent part in shaping the national economy. The original question was what economic measures besides the development of transportation could best create national unity among the far-flung and diverse parts of the country. A comparable question is in the minds of many Canadians today. An even older source of industrial policy is claimed in Quebec where a type of étatsme may be traced to Colbert. In modern times there is no doubt that industrial strategy has been what an experienced federal civil servant called "an institution of our national debates."

While the contribution of raw materials production and export to
Canadian development is unquestioned, the wish to diversify has long been strong. The aluminum industry, using imported bauxite, and the paper industry, based on domestic forests, are examples of how important processing has been, but Canadians feel they have been held back from further development by the tariff structures of other industrial countries that charge higher duties for processed than for raw materials. Some changes in Canadian taxes have reduced the attraction of mining and a major controversy concerns the emphasis that should be put on further encouragement of raw material production in which Canada continues to have a strong comparative advantage but meets increasing competition from foreign producers, often in the Third World. How Canada should use its substantial energy resources is a central issue that is fundamental to many other questions of industrial policy as well.

For a century and more Canada has encouraged the development of manufacturing. Tariff protection was the principal method and led to the production of a wide range of industrial goods. However, the fairly small scale of the home market has limited productivity so that many Canadian firms have found it hard to compete globally. While Canada took a leading part in initiating the postwar efforts to liberalize trade, it has remained somewhat more dependent on tariffs than most other industrial countries. As some 50 percent of the goods produced in Canada are exported, there has been great concern whether the MTN would go far enough in reducing non-tariff barriers abroad and whether farm products and raw materials would be treated as liberally as manufactured goods. The great importance of the American market lends special importance to what the United States can be persuaded to do in regard to these matters.

The decline in Canada’s share of world markets for a number of products has generated much debate about the extent to which the situation can be remedied by measures affecting labor costs, inflation, the exchange rate, technological innovation, investment and mergers. For some years the central issue of industrial policy has been whether—and especially how—to undertake a substantial restructuring of manufacturing to concentrate on fewer products and increase the number of firms or plants that are internationally competitive.

What looks like a striking step in this direction—the automobile agreement with the United States of 1965—was the result of an effort to avoid a dispute about Canadian export subsidies. The removal of tariffs on motor vehicles and most original (but not replacement) parts was greatly facilitated by the fact that the principal Canadian producers were American companies who were prepared to give assurances about future operations in Canada. A substantial reorganization of production
has followed with a large increase in bilateral trade resulting from increased specialization. The balance of payments effects are open to conflicting interpretations and for this and other reasons the agreement remains a matter of some controversy, between and within the two countries.

While proposals for free trade in other sectors have been discussed, none has been acted on. A substantial body of thought holds that the automotive situation was unique. Some of the resistance to working out other sectoral arrangements has stemmed from the concern of many Canadians about increasing the already high degree of integration with the much larger American economy. That has also been a factor in the longstanding Canadian debate about the pros and cons of the exceptionally high degree of foreign direct investment in the country. During the last decade a number of steps have been taken to encourage mergers among Canadian firms instead of takeovers by foreigners, and to increase the supply of domestic investment capital. The Foreign Investment Review Agency scrutinizes new investments and foreign purchases of existing ones to ensure they serve Canadian interest as defined in law. There have been few refusals but negotiations have often resulted in better terms from the Canadian point of view. These efforts have had to be balanced against fears of repelling the foreign funds, technology and business links that the country needs.

In matters of investment, raw materials, taxation, government procurement and other activities important to industrial policy, the Canadian provinces have significant powers which limit the ability of the federal government to shape or conduct a nation-wide industrial strategy. These powers are asserted more strongly and frequently than in the past. Federal aid to economic development in the poorer regions continues to be important but is not guided by a national industrial policy. To create local manufacturing capacity, provide employment and raise revenue, provincial governments pursue their own industrial strategies implemented by procurement and tax policies and sometimes the use of government-owned corporations. Groups of provinces come together in regional blocs that have considerable power to influence the country’s industrial structure. Oil-based growth in the West has accentuated differences in wealth and at the same time strengthened resistance to central government policies for evening out living standards. The heavy concentration of textiles, clothing and furniture industries in Quebec where there are limited alternative opportunities provides political as well as social and economic arguments for protection.

In this complex situation, increasing attention is being given to the perplexing issue of how to insure that more research and development
is carried on in Canadian industry. This aim, fostered especially by the Science Council of Canada, is supported not only for its inherent desirability and the provision of jobs for technically skilled people, but because the improvement of technology and science is seen as the best means of insuring the long run future competitiveness of Canadian industry when it is restructured to compete in world markets. There are, however, great differences of opinion as to what can be done to promote these ends, what it would cost and how it could be accomplished without damaging the country’s continued access to foreign technology which it will also need.

In an effort to overcome some of these divisions—and still others arising from troubled labor relations and the refusal of unions to cooperate in various government activities—mixed task forces (including labor) were set up in 1978 to look at the problems of 23 separate industries. By early 1979 further efforts were under way to build on the separate findings but opinions differed as to how much effect these efforts would have on national policy. Uncertainty, the numerous divisions within the country, the persistence of economic difficulties and political strains have combined to make it more difficult than ever for Canadians to agree among themselves on the goal or the means of a national industrial policy or, indeed, on how far the government should be involved in shaping one.

C. UNITED STATES

While industrial policy of some sort has always been a part of life in Canada, its southern neighbors scarcely recognize the term. When they do, they often see it as a label for government intervention in affairs best left to private business and the play of market forces. The industrial policies of other countries are often suspected to be little more than a rationalization for protection. Such American measures as are recognized to fall under this heading are thought to be quite exceptional.

The picture is not altogether accurate. Certainly there is no general American industrial policy, but there are many government measures that shape the country's industrial structure, intentionally or otherwise. Quite a few things are done by federal and state governments that would, in other countries, be called industrial policy. Furthermore, American attitudes towards industrial policy may be changing. Even the term is becoming more familiar and, more fundamentally, more thought is being given to governmental measures bearing on the structure of industry or the affairs of individual industries. This is partly the result of the failure of macroeconomic policies and the suspicion that
stagflation has structural causes. As in other countries, problems of unemployment and the difficulties of particular industries and areas are moving things in the same direction. When balance of payments difficulties persisted in spite of the decline in the foreign exchange value of the dollar, Washington developed a new interest in the possibility that industrial policies could be devised that would improve the situation.

Past Cases
Historically, industrial policy has not been so alien to the United States. Alexander Hamilton's Report on Manufactures of 1792 recommended tariffs to build up domestic manufacture, encourage foreigners to invest in the United States and bargain for access to European markets for American exports. Federal and state aid for canals, roads and other "internal improvements" in the 1820s, 1830s and 1840s; later grants of land to railroads; laws concerning banking; the distribution of federal land in the West and eventually the handling of grazing, mining and lumbering rights on public lands were all intended to shape the national economy.

In the period after the Civil War, high tariff protection for most manufactures was coupled with free entry for agricultural machinery and other products of special interest to farmers in a great compromise that was, in its way, an industrial policy. The series of steps that enabled corporations to operate nation-wide even though they were legally creations of a single state helped to stimulate the growth and concentration of enterprises that led to trust-busting, regulation and the anti-trust laws of the late nineteenth and early twentieth centuries.

The depression of the 1930s stimulated an interest in national planning and a few limited measures were introduced. Under the National Industrial Recovery Act, "codes" were drawn up on an industry-by-industry basis but the law was declared unconstitutional. The new approach to agriculture proved more durable. While it has gone through many changes, American farm policy has continued to be concerned with not only the welfare of farmers but also the place of farming in the American economy.

Also dating from the 1930s is the Tennessee Valley Authority, a regional development plan that has had few sequels. Though there is no general American policy toward regions, many partial measures resemble actions taken in other countries: for example, the program for Appalachia in the 1960s; flood control and waterway development; the provision of water for irrigation in dry areas; the setting of railroad freight rates; and government aid to cities and areas of high unemployment. States and municipalities have their own development policies in
which they solicit domestic and foreign investment, making what are often substantial tax concessions, providing facilities (sometimes through federal financial arrangements) and so on.

The Second World War naturally brought the U.S. government directly into the expansion and contraction of various branches of the economy and the creation of new capacity which had long-run implications for the structure of a number of industries, such as rubber, aluminum and atomic energy. Even with reduced defense expenditures, governmental decisions in the postwar period have largely determined the size and even the survival of a number of firms and segments of industry. Along with direct defense procurement, the moon and space programs have done much to develop the data-processing and aerospace industries. Foreigners see this as industrial policy; Americans are more likely to consider the civilian effects as incidental to the main purpose. There is considerable divergence as to how important the spillover was to the industrial position of the United States. By now, however, a widespread feeling has developed that the government should do more to encourage research and development and technological innovation. How and with what emphasis are matters for debate and so is the possible contribution of such measures to improving the competitiveness of American industry. In the eyes of at least a few people, this can best be accomplished by limiting the export of the most advanced technology until its use abroad will not damage American producers. This remains a minority view but the arguments sometimes converge with those in the constant debate about the export of technology to communist countries.

**Adjustment and Investment**

In 1934, the United States began a policy of negotiating tariff reductions which was greatly expanded under the multilateral arrangements that followed the Second World War. Trade liberalization became a considerable force for structural change in the American economy but has only rarely been accompanied by complementary measures of industrial policy. For a long time, selective tariff reduction reflected an implicit judgment about structure (plus a recognition of the politically practicable); some duties could be drastically reduced, others not so much. Unlike many other countries, the United States had no arrangements for government assistance to help workers move out of industries that were unable to meet import competition or to aid in the reorganization of such industries to make them more competitive. Such arrangements were first introduced in the Trade Expansion Act of 1962, but there were so many safeguards against abuse that they proved to be
almost inoperable. There was some improvement in the early 1970s and the Trade Act of 1974 provides a considerably revised arrangement in which it is much easier to establish eligibility for aid and workers are more liberally treated. A good deal of use has been made of these provisions especially in connection with escape clause cases in which the Administration wished to limit what was done by way of imposing trade barriers. However, the reforms have not been sufficient to win over organized labor, which championed adjustment assistance in the first place but became disillusioned and turned protectionist.

Governmental measures to help the adjustment of specific industries have also been the exception rather than the rule in the United States. When, in the early 1960s, Washington took the initiative for what became the international cotton textile arrangements, there were plans for an extensive program of adaptation with government help. But once the protective machinery was in place, little was heard of the matter; and when, in the early 1970s, another American initiative extended the restrictive international measures to woolens and man-made textiles, no effort was made to suggest the need for a program of adjustment. A recent program of adaptation in the shoe industry goes beyond what has been done in other fields. Behind substantial import barriers buttressed by Orderly Marketing Agreements with several producing countries, the government is providing assistance to firms to improve their efficiency and to some degree to reorganize the industry. In electronics there has been no general program, but the Orderly Marketing Agreement covering color televisions is plainly intended to stimulate Japanese investment in U.S. production (which is taking place).

Investment policy is not highly developed in the United States. Except for a few fields, the economy is open to foreign investment and much of it has been actively encouraged by both federal and state governments. Employment and taxes have been a major concern but often the type of industry comes into consideration and some plans have been frustrated by local opposition. A concern about "excessive" foreign control of the American economy that arose in the early 1970s has simmered down, leaving mainly a residue of more governmental surveillance and record-keeping than used to exist. Attacks by labor on American investment abroad as the "export of jobs" have not led to significant changes in law or policy. There is, however, a school of thought which says that the U.S. government should be concerned with the terms on which American firms invest abroad if, thanks to the pressures of host governments, these lead to forced or subsidized exports or decisions to locate abroad plants that would otherwise be built in the United States.
Energy and Steel

The two main sectoral developments of recent years that bring the U.S. government closer to industrial policy than it usually thinks itself to be are in energy and steel. Even before the OPEC crisis, the government was involved in energy both in the stimulus to atomic development and the control of trading and production of oil. While the oil import quotas of the 1950s and 1960s may have been largely the result of domestic political pressures, the rationalization concerning security took the form of an industrial policy argument. The efforts to formulate and carry through a new energy policy since 1973 represent major steps in American industrial policy. The steps are too complex to detail here but this experience is significant as an illustration of the difficulties the United States faces in this field, including the character of government-business relations, the separation of powers between President and Congress, sectional differences, issues that are within the jurisdiction of the states, and the politics and psychology of burden-sharing, especially in an atmosphere of considerable public suspicion of business.

It was only in the late 1960s that the U.S. steel industry began to feel serious pressure from import competition. The U.S. government helped persuade foreign producers to limit their shipments to the United States until a rise in world demand reduced the pressure. The difficulties stemming from the further expansion of global capacity and the shrinkage of world demand in the 1970s proved more troublesome. There was a sharp increase in shipments from Europe and Japan at prices generally thought in the United States to constitute dumping. Under strong pressure for protection from the industry, which had a good bit of support in Congress, the Carter Administration appointed a task force headed by Under Secretary of the Treasury Anthony Solomon, which reported late in 1977. It diagnosed the problems as part of the world steel problem and called for a series of measures that would cope with immediate difficulties and provide longer-run adjustments.

Various measures were taken to help the communities where plants had closed, the workers who had been laid off and small firms in financial difficulty but with reasonable modernization programs. While no lowering of pollution standards or differential treatment of the steel industry was recommended, the task force worked out a number of procedural and administrative measures which were thought likely to make the application of the laws and standards more predictable. To help meet investment needs, the task force relied in part on a general tax reform to encourage investment which the Carter Administration was to lay before Congress and in part on a change in the regulations that could be carried out by the Treasury itself.
The main innovation, however, was the introduction (by the beginning of 1978) of a "trigger price" system which would announce, domestically and to the world, a schedule of import prices for steel products based on Japanese costs (including a return on capital) plus transportation and some other factors. Imports at prices below these levels would immediately be looked at by the Treasury to determine whether dumping was going on; a "fast-track" procedure promised a much quicker resolution of the issue than was usual. During and after the formulation of these measures, there were discussions with European and Japanese authorities leading to further international arrangements discussed elsewhere in this report (pp. 58-61).

Domestically the trigger prices and other measures remained matters of considerable controversy in spite of a short-run improvement in the industry. A tripartite labor, capital and government committee appointed to oversee the plan meets but the result of its work is not clearly visible. It is still too soon to say whether the United States has taken the first steps toward a sustained industrial policy for steel or whether, when the major difficulties have passed, there will be a reversion to the "normal" situation of treating steel issues primarily in foreign trade terms until trouble strikes again.

Anti-Trust
There remain the anti-trust laws, the oldest and most clear-cut of American industrial policies. They are intended to operate generally, applying to all industries except the relatively few that are specifically exempted. In that respect they represent the kind of industrial policy a country must have if it wishes to rely heavily on market forces and ensure that competition is the order of the day. But in point of fact, the operation of the anti-trust laws has a differential effect on industries deriving from decisions about their use or nonuse and from the organization of enterprises in different markets.

Their mere existence assures part of their effect. So does uncertainty as to when and how they will be applied. Their use can produce very specific conclusions about what is legitimate competition, how monopoly is measured, what market is relevant, what degree of concentration (horizontal or vertical) is permitted in a specific industry and what individual firms may or may not do or own. Judgments on these matters enter into what cases the government prosecutes, what remedies it asks for, what arrangements it will settle for in consent decrees and what the courts decide. While the law limits what can be done, there is room for judgment and discretion. The issues involved are clearly matters of industrial policy and are often discussed in those terms. One
hears it asked, for example, whether the government should have brought a suit against IBM that may weaken its competitive position in foreign markets or whether the result will be a stronger (because more competitive) industry at home. The anti-trust laws act as a barrier to various kinds of business arrangements, national and international, and many people see them as an obstacle to industrial policy. They certainly are not now instruments of a conscious industrial policy and without some changes could probably not be used in that way. But they remain a factor shaping the structure of the American economy, at home and abroad.

D. EUROPE

Western Europe takes more readily to industrial policy than the United States. Most Continental countries have a long history of state involvement in industrial affairs. Governments protected and promoted manufacturing against the défì anglais of the nineteenth century. Many instruments of state intervention were developed in reaction to the economic crises of the interwar period and by fascist and wartime regimes; and the public sector played a leading role in early postwar reconstruction. As the private sector recovered, the state became less predominant—though with considerable variety among countries. In France, with its pronounced étatiste tradition, the role of the state has remained very strong. In Germany the authorities made a systematic effort to reduce intervention to a minimum. Even there, however, the skills required for successful intervention remain at the disposal of industrial policy and are used to deal with the harder industrial problems. Britain, with a deep-rooted tradition of laissez-faire, has reacted to its long-standing economic difficulties by endeavoring to develop the skills in government-industry relations, which come more naturally to its Continental neighbors.

In general, then, Western Europe lies between Japan and the United States in its inclination and aptitude for industrial policy. It differs from both, however, in the importance of two sources of divisions in the European polity which contrast with the emergence of a single West European economy larger than those of the United States and Japan.

First, despite the integration of markets, industrial policy is still for the most part divided among the national governments. This complex dichotomy between integrated market and disintegrated policymaking is yet further complicated by decentralization and regional differentiation within the nation-states, and by the efforts to integrate the policies of the nine member states of the European Community.
Where the policies of Community members have been fully unified, as with the common external tariff, this offers a simple and logical pattern for the operators in the market and the negotiating partners outside. The instruments of industrial policy, however, are shared between the Community and the member states: The Community has external tariffs and quotas, agricultural levies and subsidies, supranational anti-trust jurisdiction, some control over member governments' subsidies and a number of funds that relate to industrial policy; the member governments have the lion's share of subsidies, funds, fiscal inducements, public procurement, state enterprises, administrative pressures and manpower policies. The member governments' control over Community decision-making might appear, on the face of it, to offer a neat way of integrating common Community policies with those of the governments. But the policies of nine separate governments are almost inevitably divergent, and the Community's predominantly intergovernmental method of policymaking is so cumbersome, slow and indecisive that the Community is a much less effective decision-taker than either a unitary polity such as Japan or a federal one such as the United States. It is pertinent to ask whether the Community's common market can be managed effectively in this way and whether the direct elections to the European Parliament should not presage a move to a more federal system. Meanwhile, the Community's partners must put up with having to negotiate with the unwieldy Community institutions on some aspects of industrial policy and with the several member governments on others.

The second source of division is Europe's historic legacy of social class. Just as Europeans have tried to overcome their national divisions by creating the European Community, they have sought to cure themselves of class conflict by means of the welfare state and the promotion of employment and economic growth. To the extent that this need is shared, it has led most European governments to be active in industrial policy. There are deep differences of history and structure among the European countries, however, which have caused them to approach industrial policy in different and often divergent ways.

Given these differences and divisions, the making of industrial policy in Western Europe presents a complex and confusing picture, difficult to sketch in a few paragraphs. The method we have adopted is to take the four largest countries in turn, and to illustrate their industrial policies by selecting those aspects of policy which have been the most characteristic for each. In outlining each branch of policy selected in this way, we have at the same time referred to some other European countries' experience with respect to that branch. Finally the European Community's industrial policy is also outlined.
Germany

The Federal Republic of Germany, partly perhaps because of postwar Germany's relative freedom from class conflict and partly in reaction against the previous regime, has been ideologically less predisposed to microeconomic intervention than most other European countries. It can well be argued that, since the period of postwar reconstruction when the government intervened energetically in the key sectors of the economy, the main contribution of the public authorities to industrial strength has been to provide a stable economic environment, and in the earlier years an undervalued exchange rate.

If one uses formal criteria like the existence of national industrial planning agencies, or the share of the central budget devoted to direct aid to industry, Germany's industrial policy does indeed seem much less developed than that of some other European countries. But this picture must be adjusted by taking into account the substantial spending autonomy enjoyed by the Länder (with special links to para-state banks) and by municipalities and rural councils: At all these levels industrial policy measures such as the free provision of land, low-cost electricity and other infrastructure subsidies, credit guarantees and public risk capital, and even privileged procurement are far more widespread than is generally assumed. However the thrust of these measures of support is towards creating new employment opportunities rather than maintaining existing firms. Exceptions are, as everywhere in Europe, shipyards and industries in marginal regions dominated by single sectors, such as the Saar steel industry and the coal industry of the Ruhr. In the late 1960s, the government established guidelines for public subsidies and credits which are largely followed: Subsidies should be limited in time; private risk capital should be involved; and aids should be as general as possible (i.e. involve a whole sector or region, and only exceptionally a single firm as such).

In addition to its adaptive and positive, if somewhat informal, industrial policy, Germany has been one of the leaders in its active labor market and manpower policies. Perhaps only Sweden has provided a more complete example of the combination of placement and training services which are now becoming the norm in Western Europe. Germany was moreover the first to adopt codetermination as a means of participation by employees in forming the policies of enterprises, and is now making a substantial effort to develop the humanization of work. German unions are markedly more helpful than those of some other countries in supporting the adaptive aspects of industrial policy.

The German government has also intervened substantially in the creation and/or reorganization of advanced technology sectors, although
it has taken care to leave the practical implementation of its programs to private industry. Examples are the nuclear industry since the 1960s, the reorganization of the aerospace sector, computer technology and deep-ocean technology.

The public financing of nuclear reactor development in Germany has been particularly effective compared with that of France or Britain, which have also put much public money into this field, or of Euratom, which the member governments have starved of funds. All three countries, as well as Italy, the Netherlands and Sweden, have had major public programs for aircraft development; and contrary to the experience with nuclear reactors, it is now normal for aircraft to be produced jointly by two or more European countries, sometimes with American participation. Despite the difficulties associated with many of these multinational ventures, economics preclude a return to national production of major aircraft. But proposals for Community programs of aircraft development have not as yet been adopted by the member governments.

The production of computers has also been promoted by a varying mix of government funds, public procurement and merger policies in Germany, France, Italy, Britain and other European countries, in this case with rather more success in Britain. Recently each government has become busy in the field of microelectronics, with little regard for the compatibility of all these efforts in the context of the common market and European free trade system.

Although its industrial policy has been not only more successful than those of most of its neighbors but also more extensive than may appear at first sight, Germany is still at the noninterventionist end of the spectrum in Western Europe, the other end of which has been occupied by France.

France

The most famous aspect of industrial policy in France is the planning system, in which a macroeconomic framework for policy is designed with the help of sectoral commissions comprising representatives of employers and unions as well as officials. Since French economic growth has been so fast, this example has been followed by the establishment of planning bodies in Britain, Italy and a number of other countries. But their effectiveness has generally failed to compare with that which the French system has had in guiding industries towards the plan's main objectives, initially quantitative (production targets) but now more qualitative (export orientation, higher investment, regional development, etc.). The reason lies in the links between the planning system and the formidable
array of policy instruments offered by financial institutions which are largely state-owned or controlled, a great variety of fiscal incentives and penalties, and a powerful capacity for administrative intervention.

Despite the intellectual coherence of the plan, much of industrial policy consists in France, as in other countries, of ad hoc responses to crises and untidy compromises between different departmental or industrial interests; and it seems more important, for an understanding of French industrial policy, to focus on the apparatus of policy instruments which is perhaps unique in Western Europe rather than on the sometimes tenuous relationship between the ends for which they are used and the objectives of the plan.

Among the means by which the business sector relates to the government machine in France are the contrats de programme, which provide a channel for negotiations and agreements between the government and some major enterprises. More important than these formal arrangements is the informal understanding among many of the leaders of government departments, financial institutions and big firms, who share a common background in the grandes écoles and the Inspection des Finances. The consensus among this group has been a condition of the generally remarkable degree of understanding, at least by the standards of Western Europe, between governments and industry in France. Although the French policy system is still more effectively directive than those of most of its neighbors, this consensus has moved significantly in recent years, nevertheless, towards a liberal concept of economic and industrial policy.

Italy
The Italian system of government is as diffuse as the French is centralized; and this is reflected in Italian industrial policy. There are however two respects in which the instruments of Italian industrial policy are more extensive than those of most other West European countries.

One of these is in regional policy. In order to reduce the secular economic divergence between North and South, the Italian government has put massive resources into the development of the South and of other less-favored regions. The funds put into the Cassa per il Mezzogiorno have played a major part; but other measures such as fiscal inducements and an instruction to state enterprises to place at least 40 percent of their investment in the South have also been important. If the scale of Italian regional policy has been particularly impressive, however, similar objectives have been shared by most other European countries. Britain offers another notable example, with a large transfer
of resources from rich to poor regions and a number of policy innovations including restrictive licensing of new industrial developments in the more prosperous regions and a regional employment premium, now however abandoned, to favor labor-intensive manufacture in the regions with higher unemployment.

The other special Italian feature is the extent of state ownership of industry. Although this originated haphazardly in the 1920s through the collapse of banks which, when taken over by the state, brought the ownership of industrial concerns with them, it has been used as an instrument of public policy in certain ways, of which the contribution to regional development is an example. During the period of greatest industrial expansion, in the 1950s and 1960s, the predominant tendency of public policy was to allow the state enterprises to operate more or less like those of the private sector. Since the onset of the crises of the 1970s, on the other hand, the state enterprises have been the main object of a passive and defensive industrial policy, propping up employment in loss-making firms by the injection of vast sums of public money. This policy has spilled over into the support of private firms as well. At the same time, however, laws have been enacted to encourage diversification and to give fiscal rebates to firms with financial problems, with special emphasis on help for the smaller and medium-sized firms.

**United Kingdom**

The British, like the Italians, have spent huge sums in subsidizing state enterprises as well as a number of private firms in the 1970s. They have also been among the most generous in the policy, common to most European countries during this period, of subsidizing labor in order to forestall dismissals. These have been seen as emergency measures in response to abnormally high unemployment. There is a reaction against them on the grounds of their cost and of the danger that they will reduce the efficiency on which employment in an open economy must in the longer term depend. But this does not necessarily imply a reaction against the many other forms of industrial policy which have been employed by successive governments of both main parties in their search for ways of stimulating industrial development in this least dynamic of Europe's major economies.

Where the industrial policy in each other large European economy can be characterized by one or two prevailing features, the characteristic of British policy has been its readiness to try all varieties and to emphasize different ones with the passage of time and the swing of the political pendulum. Inspired by the French example, the Conservative government in the early 1960s introduced the National Economic
Development Council (NEDC), and in the middle of the decade the Labour government initiated a short-lived National Plan. It subsequently promoted a series of important mergers through the Industrial Reorganization Corporation, following a policy diametrically opposed to the spirit of American anti-trust, but common in Europe, where the French too have been particularly active in promoting mergers so as to create powerful "national champions." After winding up the IRC, the next Conservative government passed the Industry Act (1972) for the injection of public capital into firms that would, in the government's view, benefit from it. The Labour government that came to power in 1974 established the National Enterprise Board to provide funds for new or existing British firms, and replaced the Industry Act (1972) with the broadly similar Industry Act (1975). The bulk of the NEB's funds have been used to support British Leyland and large sums of public money have been applied to save other ailing industries, particularly shipbuilding. There are some success stories to set against these costly defensive measures. The rescues of Rolls and Ferranti have maintained important centers of technology with good prospects of long-term competitiveness; modernization has been promoted by special funds for sectors such as clothing and machine tools; and there are several successful agencies for promoting industrial development in the regions and in the countryside. Examples of successful public agencies for financing industrial development are indeed a feature of industrial policy in a number of European countries. The Kreditanstalt für Wiederaufbau, after the notable part it played in postwar reconstruction, has moved on to serve other purposes, including aid for investment in small businesses. French bodies such as FIDES and the Crédit National have had a long run of achievement in supporting investment. Among the agencies of the smaller countries, the Irish Industrial Development Authority has an excellent record.

The difficulties that British governments have found in behaving in a way that helps industrial efficiency and growth may stem from cultural and social attitudes which have undervalued the importance of industry in the national life, reinforced by a political and administrative tradition of separation between the civil service and the business sector. In reaction to this, British governments have begun to pay increasing attention to industrial needs, in seminal matters such as education as well as in issues that affect industry more immediately. The activity of discussion and consultation in the tripartite Sector Working Parties of the NEDC, which goes under the name industrial strategy, is one example of this effort on the part of those responsible for public policy to move up the learning curve of understanding the needs of industry
and the ways in which industrial policy could favor industrial growth.

**European Community**

With its member countries having such diverse systems of economic and industrial policy, the European Community also faces a steep learning curve in the making of common policies relating to Community industry as a whole.

The Community's external tariff may be counted as its most important common instrument of industrial policy up to now. It has caused remarkably little controversy or difficulty within the Community, although it has been cut by about half from its initial level of 1958. Like other industrial economies, the Community has special measures of protection against imports of labor-intensive manufactures; and it has adopted a more restrictive stance than formerly in negotiating the recent round of Multi-Fiber Agreements. But a consensus in favor of liberal trade has predominated in the Community's policy towards trade in manufactures.

In contrast, the Common Agricultural Policy has aimed at self-sufficiency and maintained internal prices by import levies and export subsidies at levels which have generated heavy surpluses of some products. Compared with the cost of the price supports, the "guidance" funds for improving the structure of the industry have been modest.

Measures for modernization and redeployment had a larger role in the arrangements for coal and steel initiated under the earlier treaty establishing the European Coal and Steel Community. The Community has used its powers to raise loans to finance projects for modernization of these industries or for promoting other economic activities in places where coal or steel workers are made redundant; and it has used funds for manpower and social policies in this connection, including training, placement and the provision of houses.

The Coal and Steel Community also provided for the use of minimum prices and other measures to stabilize the markets of the industries in times of recession. Such measures require the agreement of member governments, which has been difficult to secure. The Commission nevertheless succeeded in obtaining acceptance, during the current recession, of its proposals for a floor price for steel imports and for stabilizing prices within the Community market. This scheme, like the American one, takes steel costs in Japan, the most efficient major producer, as the criterion for its minimum import prices, but it is buttressed by quantitative restrictions negotiated with supplying countries. Its justification must depend not only on the immediate stabilization which it has brought to the Community's steel market but also
on the extent to which it is accompanied by measures to render the industry viable in the future, through modernization or the reduction of capacity.

For other industries, which come under the Treaty establishing the European Economic Community, the Community as such has less formal power to introduce measures for stabilization or restructuring. Its powers to disallow member countries' subsidies to industry under Articles 92 and 93 of the Rome Treaty may, however, be used in a way that induces member governments to apply their subsidies to adaptive rather than purely defensive purposes; and the Commission's policy seems to have been moving in this direction. The Commission proposed to make subsidies for shipbuilding conditional on a program to reduce capacity by 40 percent or more, but has not secured the support of member governments. With textiles, although the Community has negotiated the Multi-Fiber Agreements and the resulting complicated distribution of quotas among the member states, the member governments have been largely responsible for other aspects of industrial policy relating to the industry. The extent to which governments have encouraged adaptation has varied widely from country to country. The Community has assisted with its Social and Regional Funds, but not on a scale that could greatly influence the rate at which the industries adapt.

Community action has also been proposed to help other industrial sectors deal with their problems. The member governments have not, however, accepted its major proposals for Community policies for aerospace, computers or a defense procurement agency; nor have they given Euratom the substance required to move beyond the periphery of research and development relating to nuclear reactors. The Commission itself has been unable to reach a clear policy regarding the man-made fiber industry's wish to conclude an agreement to reduce capacity and maintain prices, because of a conflict between two concepts of industrial policy: traditional anti-trust and a recession cartel.

The Community's competition policy has itself proved effective in influencing the behavior of certain sectors of industry on somewhat classical lines; and the creation of the common market, going beyond the abolition of internal tariffs and quotas to the harmonization of many specifications and now the opening up of public purchasing to competition among Community suppliers, has had a great impact on the structure of industry in the Community. In addition to the measures to remove market imperfections, the Commission has, starting with the Colonna Report in 1970, proposed a variety of policies to assist the adaptation of industry in general; and some of these are being implemented, including the removal of some obstacles to mergers between
firms from different Community countries and the establishment of a bureau to help cooperation among small firms.

The prospect of enlargement to include Greece, Portugal and Spain raises problems for industries in both the new and the existing members. The need to expand the Community’s capacity to facilitate adjustment is evident, and the Regional Fund is likely to be substantially expanded. There have been calls for a program with the imaginative reach of the Marshall Plan. The Community has undoubted achievements to its credit in the field of industrial policy, although the weakness of its institutions and the inadequacy of its instruments have so far inhibited the formation of common policies that meet the needs of the time. It is to be hoped that the direct elections to the European Parliament in June 1979 will help strengthen the institutions so that the Community can act more effectively in industrial policy as well as in other fields.
IV. GUIDEPOSTS FOR INDUSTRIAL POLICY

A. AIMS AND VALUES

The section on Japan has shown that economic efficiency has been the traditional aim of Japanese industrial policy. Economic efficiency, or an optimal allocation of resources, should be a central aim of industrial policy. Industrial policy is seen, then, as correcting distortions due to imperfections in the markets or filling gaps in what a market system provides, such as research and development costs for very big projects or, in some countries, investment funds for small or medium-sized firms. Economic efficiency should be understood in a long-term sense. Most fundamentally, industrial policy may aim to create or preserve a dynamic economy by encouraging investment, innovation and research and development.

Too much bureaucracy, regulation and centralization is the enemy of freedom, and industrial policy should aim to keep these, in both the public and private sectors of the economy, to the minimum necessary to fulfill clear objectives. Thus the health of the market and enterprise system is a primary aim of industrial policy, and anti-trust or competition policy are essential parts of it.

Increasingly, in our highly developed societies, economic and industrial policies have to adapt themselves to social aims, such as a good environment, protection of minorities, job security, and high levels of employment locally as well as nationally. In this perspective, industrial policy should “facilitate necessary and desirable structural changes at a socially acceptable pace”* and thus fulfill both efficiency and social aims. For example, measures to ease the transition for workers to new jobs permit measures of trade liberalization that would otherwise be socially costly or disturbing.

Security can be another aim of industrial policy, whether in the promotion of defense industries or the maintenance of optimal self-sufficiency ratios in the production of such essential commodities as energy or steel.

Finally, the health of the international economy must be an aim of industrial policy for countries whose economic level depends on the international division of labor. The importance of this aim is com-

*"The Economic Prospects for 1978: How Can We Overcome the Conjunctural and Structural Obstacles to Continued Economic Recovery?", a speech by Mr. Emile van Lennep, Secretary-General of OECD, at the Royal Institute for International Affairs (Chatham House), London, on January 24, 1978.
pounded by the fact that political freedom and welfare both depend on a cooperative and peaceful international system.

Efficiency and dynamism, freedom, social welfare, security, international harmony: It would be a fortunate industrial policymaker who managed to achieve a high score on all at once. Often there will be difficult trade-offs to make between them, for example between social welfare and international harmony in the urgent provision of new jobs to replace old ones in Lorraine. The policymaker must do the best he can in such cases by using the several instruments available to him. We now consider some of the ways of implementing industrial policy and some criteria which may help to evaluate the effectiveness of the different means in achieving an optimal combination of aims.

B. BACKGROUND FACTORS

In so far as the aims of industrial policy can be achieved by other policies with more general application—in particular a macroeconomic policy that brings full employment and steady growth—the more general policies are preferable. In addition, some of the burden can be removed from industrial policy by other branches of structural policy, such as regional and manpower policies, even if they are not necessarily of a more general character.

Old industries such as textiles, steel, shipbuilding and coalmining tend to be located in regions which were poles of growth during earlier stages of industrial development, where industrial decline and unemployment consequently now tend to concentrate and where there is the sharpest conflict with imports from newly industrializing countries. Here, regional policy may be little more than the sum of defensive industrial policies for each declining industry. But if economic activity can be generated in these regions by improving the infrastructure or subsidizing new industrial developments in the region as a whole, the pressure for protection of particular industries is reduced.* Only by such measures can governments expect to get wholehearted cooperation by labor in the structural changes essential to high productivity and growth.

Manpower or labor market policies can likewise deal with some of the problems that create a demand for industrial policies. Training can suit workers from declining industries for new jobs and reconcile job security and technological change. Geographical mismatch between workers and job opportunities can be reduced by helping the workers

*For a recent analysis of regional development policies in OECD countries, see The Aims and Instruments of Industrial Policy (Paris: OECD, 1975), pp. 92-99. This report also deals with most other elements of industrial policy.
to move or steering the jobs to the workers. Sweden and Japan have combined low unemployment and high growth of productivity with the aid of such manpower policies, undertaken in Sweden mainly by the national Labor Market Board and in Japan by the big firms. In Germany, Sweden and other countries, manpower policies have been a major element in reconversion of the textile industries.

To achieve the most powerful impact on structural problems, it is necessary to coordinate industrial policy with other branches of structural policy such as these.

**Government-Industry Cooperation**

Because the relationship between state and business has been at the heart of ideological conflict in so many countries for the past two centuries, there is an unrealistic polarization of views on the subject. Liberals and conservatives fear that the relationship will consist of instructions from politicians and bureaucrats to businessmen, distorting economic activity and hampering development. Marxists and populists believe the instructions pass from businessmen to governments, using the apparatus of the state to exploit the people. Where those concerned are not too deeply imbued with either doctrine, it has been possible to evolve a cooperative relationship which reflects the interdependence between public authorities and industries in the modern economy.

History has protected Japan more than any other industrialized country from that controversy; and an effective form of relationship between government and industry has developed. Except on the issue of nationalization, the French seem to have kept this aspect of their national affairs fairly free from a divisive ideology, in part because of their ideology of national independence; and the interchange of people among the leading positions in industry, finance and government facilitates mutual understanding. In the defense industries, where *laisser-faire* principles must clearly be overridden, American government and industry work productively together; the natural suspicion that outsiders have of this alliance largely translates itself into a process of public scrutiny that helps to avoid abuses.

These are perhaps the three most successful cases of government-industry cooperation among the industrialized countries; and the success depends on each party respecting the functions of the other. Governments have to understand that it is the firms which have the knowledge that enables them to take the initiatives which are the stuff of economic development. Firms have to respect the capacity of governments to look after the public interest in matters such as employment, the environment, trade policy and the legitimacy of agreements among firms. Where trade
unions are organized in a way that influences industrial change, firms and governments have to secure their consent to changes proposed. The influence of trade unions as well as enterprises on industrial policy has increased in a number of countries, and there is a need for means to enable this influence to be exercised as constructively as possible. Where there is no cooperation among the three parties, economic development is not likely to be advanced, nor the needs of industrial efficiency, social welfare and the environment reconciled. Neither a directive nor a laissez-faire economy is apt to prosper; and a mainly voluntary concertation is the method whereby an industrial policy has the best chance to succeed.

C. TYPES OF POLICIES: GENERAL AND SECTORAL

Where industrial needs can be met by policies which are more general in their application, this may be preferred to interventions that apply to specific sectors or firms.

Industrial health and strength are affected by countless policies; and where these are made without regard for the needs of industry, the cumulative effect can be most damaging. In Britain, where governments have in the past been relatively unconscious of industrial needs, an accretion of policies, ranging from the educational system through taxation to the requirements of land-use planning, could be said to have accumulated to a systematic anti-industrial policy. Here, greater weight is now being given to industrial needs, just as Japan, from the opposite end of the spectrum, is increasing the weight given to social and environmental requirements.

More specific to industry, though applying to manufacturing industry as a whole rather than to particular sectors, are some policies designed to strengthen industry or industrial employment. At a time when productivity in large manufacturing firms may grow faster than demand, their ability to raise employment is uncertain, and job opportunities in them may be reduced. This increases the importance of small firms as providers of employment. They can also contribute to innovation and to the quality of life. New policies to favor small firms have been introduced in several countries, offering fiscal or financial advantages, removing some of the burdensome requirements of our legal and administrative systems, and providing services of consultancy and information.

With the shift of some activities to newly industrializing countries, the need is growing for new products and industries to generate new jobs. This, combined with fears of a loss of technological dynamism in
industrialized countries, is stimulating efforts to provide public support for industrial research and development, through tax incentives, public financing, or adapting the educational system.

Most central to the problems of employment and growth as well as industrial development, however, is policy towards industrial investment. A general revival of investment would increase demand and growth. Its direct effect on employment is less certain, because the new equipment will tend to be labor-saving. But with higher demand and more resources available for adjustment, the employment problem becomes easier to solve. It is particularly important to ensure higher investment well before any pronounced upswing of demand, or bottlenecks will be found at many points of the economy, aggravating inflation and hence the prospect of a subsequent return to high unemployment.

Despite the merits of more general policies, many industrial policies are in fact directed at particular sectors. It is these which evoke most of the fears that industrial policy will promote inefficiency and protect vested interests, particularly where the perspectives of a closely-knit group of employers, an industrial union and a sectoral government department coincide. The stress in this paper is on the need for sectoral policies to be adaptive, with the vital condition that the economy itself is adapting in a direction that offers new work for those who are displaced.

D. TYPES OF POLICIES:
DEFENSIVE, STABILIZATION, POSITIVE

Those policies that are designed solely to defend existing employment and production in a specific sector may be called defensive policies. They have been applied most often to labor-intensive industries that suffer from the competition of exporters from low-wage countries, although the competition and the policies have now spread into some of the more capital-intensive industries.

Other sectoral policies arise where there is overcapacity among the industrialized countries, which may be aggravated by imports from new producers but is not caused by them. These may be called stabilization policies because they are intended to stabilize sectors by reducing or sterilizing capacity until it corresponds to demand again.

Both defensive and stabilization policies may be made adaptive, if instead of mere preservation of the status quo, the aim is to move resources into more viable activities. For this a third type of policy is required, to stimulate new activities or improve the old ones and thus help replace the jobs and production that are lost. This function is
performed for the most part by policies of global economic expansion or by general support for research, development, innovation and investment. But there are also more specific policies: to promote high-technology industries; to raise efficiency or facilitate reconversion in the direction of comparative advantage at other technological levels, for example within the textile industry; or to locate new jobs at the places where old ones are lost. These may be called positive industrial policies. There are two different sets of motives for the positive policies. The main aim may be to replace declining or inefficient activities with those that will strengthen the economy; the new activities may then be of a sort already well-established in other parts of the national economy. But wholly new industries are often promoted by national industrial policies, not so much to make a more efficient use of resources as to modernize or diversify an economy or create capacities thought to be important to national power or prestige.

As the example of the textile industry shows, more than one type of policy may be applied to one sector. It will indeed be argued that defensive or stabilization policies should always be accompanied by positive policies to shift resources into new and viable activities, whether in the same or a different sector. Industrial policy would thus comprise a whole which could be called active industrial policy, just as comprehensive manpower policy is called an active labor market policy.

Defensive and Adaptive Policies for Old Sectors
Among manufacturing industries, textiles have become the classic case of defensive industrial policies. At first these took the form of simple protection, and in the 1930s imports were sharply cut by a number of countries. But in the context of the GATT the protective policies became more open and sophisticated, resulting in the Long-Term Cotton Textile Arrangement and subsequently the Multi-Fiber Arrangement under which quotas may be imposed but have to be enlarged by a given percentage each year. Importing countries should use the time bought by this protection to take structural measures to render it unnecessary in the future; and some have done so.

The Swedes have used financial incentives to firms, management training and labor market policy to steer their textile industry up-market to the quality products where high skills can justify high wages. Public policy in Germany has helped to concentrate the industry on industrial textiles. The Japanese authorities have facilitated the industry's move to offshore production and the consequent redeployment of Japanese labor. After buying out surplus cotton textile capacity in the interwar period, the British government promoted the concentration of the textile
industry in the 1960s, to the point where four firms account for half its production. Some countries, however, have done very little and the Arrangements have not required them to make adequate adjustments. This may be why this kind of protection has not only lasted two decades but also become more extensive.

The positive policies are usually associated with a process of import liberalization, so that labor market policy and financial aid for reconversion help to redeploy domestic resources into activities with higher productivity and added value at the same time as imports from low-wage countries have increased.

Some of these reconversion programs have been notably successful, and they may well be followed by similar programs for industries such as footwear, leather goods and consumer electronics, which have been following textiles into a state of endemic pressure from low-wage competition.

**Stabilization in Capital-Intensive Industries**

Imports from newly industrializing countries have also been eating into the markets of more capital-intensive industries such as steel and shipbuilding. Here too it may be necessary to link programs of reconversion and positive industrial policy with the controlled growth of trade. There is no difference of principle from the case of textiles, although the capital and the numbers employed in a plant are usually greater.

Imports from newly industrializing countries are not the main cause of overcapacity, however, and the temporary limitation of this trade, although it may be necessary in order to prevent market disruption, would not be an adequate solution. The surplus capacity in steel has been caused more by low demand and high investment in industrialized countries. The heaviest investment in shipbuilding capacity, to meet the demand for tankers before the oil crisis, was in Japan. After its earlier rapid expansion in the OECD countries, the capacity to produce fertilizers, man-made fibers and other petrochemicals has recently been expanded most in the state-trading countries and the developing countries, but until now this has been import-replacing rather than export-creating. In addition to the investment plans of state-trading or developing countries, which are by no means always soundly based in international comparative advantage, multinational companies have tended to vie with each other by establishing a plant to produce each product in each market, thus biasing their policies towards the creation of surplus capacity. Responding to the terms set by host governments they have frequently undertaken to export significant shares of the new production, often on a subsidized basis.
When demand is growing fast, surplus capacity can usually be employed before long to supply new demand or written off with the help of profits from expanding operations. But when there is over-capacity during a period of slow growth, price cuts by one manufacturer tend to be followed by other manufacturers, even if this makes them unable to cover their capital costs, because it is better to recover at least part of these costs and to keep the work force in being than not to use the capacity at all. The low prices cause losses or low profits which deter investment, and if a number of major industries suffer in this way simultaneously, their low investment can lead to low demand and growth in the economy, resulting in continued overcapacity and low prices, and thus completing a vicious circle.

This circle can be broken by eliminating or sterilizing surplus capacity, maintaining prices at a profitable level, and investing in modernization or new and more viable development. In the case of steel, both the United States and the European Community have taken steps to restore prices, by ensuring that imports do not fall below a minimum price and, in the Community, fining domestic producers who sell below it. It is not yet clear that these measures of price maintenance, supported by protection, will be followed by adequate positive policies to make the industries viable in the future. They certainly require modernization and increased efficiency to meet Japanese competition (under conditions of “fair trade”). In Europe, it is generally thought that there will have to be a reduction in total capacity as well. The case is a most important precedent, because steel may become the textiles of the capital-intensive industries: the industry whose problems are repeated in many others such as shipbuilding, plastics, fertilizers, man-made fibers, other petrochemicals, refineries, automobiles and other branches of engineering.

The predicament of some capital-intensive industries during a long recession leads to measures to stabilize prices. Such measures were taken in former times by cartels, which were suspected of using their power against the public interest. Hence the public authorities are involved in contemporary measures of this kind. But these too can act against the public interest, if the result is only to freeze an unviable status quo. Price maintenance by an industry should therefore be accepted only if it is accompanied by adequate measures of capacity reduction, modernization and reconversion. In this way adaptation can be accelerated. If the industries do not adapt, bankruptcies may be better than continued stagnation. But large industries can survive in a low state for a long time by running down capital and drawing on financial reserves.
Public authorities have four main instruments with which to stimulate adaptation: competition laws, import policy, investment licensing, and funds for industrial and manpower adjustments. Competition laws can be drafted or interpreted in such a way that price maintenance is conditional on effective reconversion programs; such a policy has been proposed for the European Community and could, given changes of policy and perhaps law, be implemented under American anti-trust legislation. Import controls can also be subject to the condition that an industry put its house in order. In Japan, when certain investments are required in the oil-refining industry, companies have to get a license, under the special law for the industry. In some other industries a consensus is reached between government and business about closing old plants when building new ones. The Scandinavians and Japanese have programs to destroy shipbuilding plant, with financial help such as grants, low-interest loans or official guarantees for bank loans at normal rates.

The more that measures to control capacity can be internationally concerted, the less they will be accompanied by protection against imports from countries that do not participate. It is hard to secure agreement on such measures, because there is usually at least one country which feels that it need not or should not share in the restraint. This is rational enough where new producers have appeared on the world market whose competition has helped make capacity in the older centers of production redundant. But even if the effort of adaptation is confined to the industrialized countries, these difficulties arise. Even in the European Community, where the common institutions are responsible for both import and competition policy and there are Community funds to assist reconversion, agreement has been hard to reach. One way to facilitate agreement is through a package deal, so that each country will derive satisfaction from the arrangements for at least one of the products in question. The risk is that “fair shares” will perpetuate inefficient capacity. Another way is through the sanction of trade controls, whereby countries that fail to participate lose export markets. Even if this could be reconciled with GATT, it would work only if those countries wish to export to the participants; nor is it possible where there are irrevocable free trade arrangements as within the European Community.

It is impossible to foretell how far the control of capacity, and hence an international concertation of investments in some industries, may prove necessary in the future. The case for it in some industries will become increasingly strong if overcapacity lasts much longer; and thought needs to be given to the character of the international instruments that could make it effective. For some industries, these could take
the form of agreed terms for loans or subsidies to companies to "scrap and build," as has been proposed for ships. For other industries, agreement may be reached on quotas of capacity to be scrapped or mothballed with sanctions in the form of trade controls or compensation from an international fund. The case for these measures is strongest where global capacity has expanded, because new producers seem better able to meet their own needs and those of other nations than the older producers. If this is not so, care must be taken that a contraction of capacity to meet the recession does not become a bottleneck for the future and actually impede recovery. Except when technological change has made certain products or processes obsolete, it is hard to conceive of excess capacity on a global basis as anything but temporary. But in particular countries or areas that have lost their international competitiveness or are barred from foreign markets, the phenomenon is real enough. That is another reason for favoring international over purely national approaches.

Innovation and New Industry
The involvement of governments in developing high-technology industries is by now a well-worn path. Their importance for defense, the huge sums needed for research and development, and the role of the public sector as a consumer have all led governments in this direction. The unpredictability of advanced technologies adds to the normal difficulties of government involvement with industry; and this is compounded where the economies of scale force small and medium-sized, and now even large, countries to pool their efforts, and where the negotiating partners include not only governments and national companies but also multinationals.

Most of the new industrial jobs will not be created in the highest-technology industries, but by developing new products and raising added value lower in the technological spectrum. This was the principal aim of Japanese industrial policy in the 1950s; and although policies aimed at catching up with industrially more advanced countries may succeed more readily than those designed to develop an economy beyond that stage, the examples of reconversion programs in the textile industries show that it is not only in Japan that industrial policy can play a positive role. The general policies to promote research, development, innovation, investment and skills are important here. One useful proposal is to undertake public purchasing in such a way as to improve quality and encourage innovation, not only in high-technology products but across the whole range of the public sector's requirements.

There is also likely to be a need for positive programs in particular
sectors other than textiles. In such reconversion, viable jobs will often be created in the same industries, as was done in the German and Swedish textile programs. But many workers will have to move to other sectors, and a lack of jobs elsewhere will often set a limit to the rate at which change is accepted in the industries where employment is declining. There is therefore a strong public interest in the acceleration of new developments that will provide viable jobs. We have already referred to general policies to encourage innovation and small businesses. Some growth sectors of industry such as energy conservation and production, pollution control, microelectronics and biochemicals can be identified and their development facilitated by measures such as public purchasing, timely training programs, and the provision of finance.

Behind any such measures of industrial policy lies a view of the future direction of growth in the economy. This view will not originate mainly in the minds of public officials. It is the people in the enterprise sector whose experience best enables them to identify the sources of future growth. The present hesitancy in the development of the market economies may be due as much to uncertainty about what will follow the great consumer durable boom of the 1950s and 1960s as to any other cause. Enterprises must devise frameworks of thinking based on the major private wants and the great public problems that will arise in the 1980s and 1990s. The more that those who design industrial policy are informed by such views, and the less they are bound by the idea of defending or promoting a particular industrial sector, the more effective the policy is likely to be.

E. CRITERIA FOR IMPLEMENTATION

In the light of the foregoing analysis, we can now establish some criteria for the means by which the aims of industrial policy, set out at the beginning of this chapter (pp. 38-39), may be achieved. The OECD Council has recently, in a statement on policies for adjustment,* agreed upon some similar criteria for industrial policy, and we have also drawn upon these in compiling the list that follows:

1. A properly functioning market is the most important instrument of industrial policy. Policy should usually work with underlying market forces, not against them.

2. Where the aims can be achieved by policies which are more

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*OECD Communiqué A(78)23, 15 June 1978, part of which is reproduced in Appendix I of this report.
general in their application, this may be preferred to interventions that apply to specific sectors or firms.
3. Defensive or stabilization policies should be accompanied by positive policies to stimulate more viable activities and move resources into them.
4. Policy should thus help industry to adapt towards long-term efficiency. The direction of adaptation should normally be determined by the market and enterprise system.
5. The defensive or stabilization measures should be temporary and should, as the OECD statement puts it, “wherever possible, be reduced progressively according to a prearranged timetable.”
6. Industrial policy should be as transparent as possible. Thus “the cost should be made as evident as possible to decision-makers and the public at large”* and the international implications should be clear to all parties concerned.
7. Industrial policy should be based on cooperation between government and industry and implemented through a mainly voluntary concertation among them.

V. INTERNATIONAL ASPECTS

Industrial policies are made mainly by national governments. Yet most of the industries to which they apply operate in an international market. There is a disjuncture between politics, which is national, and economics, which is international.

This is one of the great dramas of our time. The internationalization, which has already penetrated deeply into our economies and spread widely over many countries across the world, is continually penetrating deeper and spreading wider. Economic interdependence is increasingly at odds with our political system, rooted in the nation-state.

There is therefore a growing danger that divergences among national policies will give rise to international conflicts, unless we find ways to reconcile the national policies or combine forces to make our actions more effective.

Protection is one of the main instruments of industrial policy and, even where not deliberately protective, industrial policies often distort the conditions of international trade. To offset this, attempts to deal with the international implications of industrial policy have reinforced the trading rules, as is done by the codes on subsidies and public procurement worked out in the Multilateral Trade Negotiations concluded in 1979.

While this focus on trading rules may be necessary, it is not sufficient. We have argued that industrial policies are needed to deal with structural problems in the modern economies. Thus, international action should not aim to dismantle these policies. The pressure should, rather, be towards positive and adaptive industrial policies, whether on the part of single countries or groups of countries combined. Far from being protectionist, industrial policy can then help to remove a cause of protectionism, by making the process of adjustment less painful.

A. THE MULTILATERAL TRADE NEGOTIATIONS (MTN)

The new GATT agreement opens new possibilities for dealing with some of the international effects of national industrial policy measures. While a number of the arrangements agreed on in Geneva will play a part in this process, the most important are likely to be the codes covering subsidies and government procurement.

Subsidies in one form or another are among the principal instruments of industrial policy. They involve many more activities than just the direct payment of funds from government to business: tax concen-
sions, losses by state enterprises, loans, reduced interest rates, guarantees of debt, regional aid and even publicly financed infrastructure. GATT rules limiting the use of export subsidies are to be tightened and clarified. More important for industrial policy, however, are the broader and looser provisions concerning other subsidies. Governments are not ready to submit these activities to detailed regulation (which would in any case be extremely difficult to devise). In the new rules, however, they have recognized that sometimes subsidies that are primarily intended for domestic purposes can be damaging to other countries. So a procedure has been set up through which countries that have complaints on that score can make clear their problems and hope to get relief. Thus the effects of subsidies rather than their form become the main objects of international negotiation. If the procedures work, countries will be limited in the burdens they can transfer to other nations by subsidizing activities at home. Governments will be constrained to find ways of achieving the aims of their commercial policies without hurting those who have no part in formulating them.

Also widespread is the practice of discriminating in favor of domestic sources of supply in purchases by governments and government-owned corporations. Sometimes simply a way of protecting domestic producers against more efficient foreign producers at the taxpayer's expense, government procurement can also be used to build up new industries, support older firms or areas, or ensure the existence of a domestic source of supply for certain things. The new GATT code would open up some of these purchases to competitive bidding from abroad conducted according to agreed rules. Many areas of procurement are excluded, including those concerned with defense. As the number of publicly-controlled enterprises differs greatly from country to country and since in federal countries the central government often cannot dictate the purchasing policies of the states or provinces, a good bit of the bargaining at Geneva concerned the entities to which the new rules should apply (post office and telegraph versus national electrical power stations and steelworks) and the amount of trade that might be involved. The effects of these arrangements are not predictable (and the mix may be changed as time passes), but the rules and the need to consult about their application plainly provide one more international link between national industrial policies.

The effectiveness of the new GATT rules on subsidies and government procurement depends more on how they are used than on the terms of the new provisions themselves. Failure to apply those procedures, for whatever reason, or the failure to put effective limitations on national action will not only lose an opportunity to widen the area of
international cooperation about industrial policy, it will almost certainly undermine the degree of trade liberalization already achieved, as has happened through the past use of non-tariff barriers (whether for industrial policy purposes or not).

An unsuccessful effort was made in the MTN to improve the GATT rules about the use of escape clauses or safeguards. These involve both trade and industrial policy. It has long been recognized that if imports come into a country in sufficient quantity, at a fast enough pace and low enough prices to "disrupt" the domestic market (however exactly that term is defined), the government should be allowed to check the flow by one means or another even if this means suspending its obligation to permit free entry. The difficulty has been to avoid the use of this device for protectionist purposes and to ensure that the time gained was used to permit the future removal of the import controls. Both aims can be served by stricter definition of the conditions in which the procedure can be used and increased international surveillance. Unless later negotiations make good the failure to reach agreement in the Tokyo Round, it is unlikely that the old GATT procedures will bring about more effective adjustment.

A highly controversial matter is the application of safeguards in a selective fashion so as to apply to imports from only certain countries. The case for permitting this kind of action is that restrictions can be confined to the most troublesome sectors of trade. The case against is that discrimination against the newest efficient supplier may not be justified and that a strong country can abuse the right of selectivity to put serious pressure on weaker rival producers. Again, international surveillance and the right of complaint about abuse provide the principal remedies.

Three points are of particular importance. First, governments should be permitted to use the safeguards only on condition that their difficulties meet specified conditions in the eyes of third parties. Second, there should be a time limit on the use of the safeguards and the restrictions on imports should be relaxed during it. Third, during that time the government using safeguards should be obliged to pursue a policy of adjustment. The kinds of adaptive measures recommended in this report should be used to reduce the need for further protection either by making the domestic industry more competitive or transferring resources from it to more productive activities or both. A further question of considerable importance is whether the safeguard rules would be applied so as to obviate Orderly Marketing Arrangements, or at least establish standards for their possible use in the future. The logic of the case for doing so is strong since OMAs exist because importing coun-
tries preferred them to the GATT safeguard rules, at least partly because the latter could not be applied selectively in the past.

B. INVESTMENT AND MULTINATIONAL CORPORATIONS

Although there is no GATT for investment, the results of the Tokyo Round will affect both business decisions about the location of new plants and the measures governments take to affect those decisions, whether ad hoc or as part of comprehensive, well thought-out industrial policies. For example, rules about government procurement have a bearing on the eligibility of foreign-owned firms for national treatment. More generally, all measures affecting trade barriers—and especially those limiting the ability of governments to impose controls on certain ones—are likely to have a bearing on some investment decisions in the future. The most specific impact, however, is likely to come through the subsidy code since subsidies in one form or another, frequently tax concessions, are widely used by governments to induce foreigners to locate in their country and also to ensure that part of the output of the new plants is exported.

To a degree, therefore, the GATT codes will supplement the existing, but limited, OECD agreements affecting investments, namely the codes on the liberalization of invisibles and capital movements and the more recent one concerning the behavior of multinational corporations. However, all these measures taken together fall short of providing an effective international understanding about how national industrial policies can be used to influence international investment. Nor is it likely that the elaboration of such a code will be the most promising course of action in the near future. Nevertheless, the effect in other countries of national measures concerning investment will continue to be a matter of concern. If the GATT code on subsidies does not suffice to deal with this problem, there will be either international disputes or understandings among a few countries, or the former will lead to the latter.

A more general question that is bound to manifest itself in a variety of ways concerns the interaction between multinational corporations and national industrial policies. The supposed power of multinationals to thwart the aims of national governments has probably been exaggerated but they clearly have an important impact on national economies. Their investment, pricing and pay policies may reinforce a government's policy or weigh against it. Foreign firms have to be taken into account in shaping national industrial policy. In any case the economies of at least two of the countries in which the company operates will be affected. The scope for conflict between companies and governments
is evident. But influence in the relationship between multinationals and governments is a two-way street, and companies have to live with national industrial policies. While companies may benefit from subsidies, they may also lose some freedom of action. They may enjoy protected markets, but if their operations become fragmented, their integrative potential will be reduced and perhaps their economies of scale as well. Whatever the balance of forces in a particular case, national industrial policies cannot be made on the assumption that action at the borders is definitive. As Professor Raymond Vernon has pointed out, part of the problem lies in the international elements within each national economy; and whenever a government influences or controls the behavior of a multinational enterprise, it also affects other countries.

C. DEVELOPING COUNTRIES*

The relationship between countries at widely different levels of economic development is bound to be difficult. Its designation as "the conflicted relationship"** is a good one. But the nature of the conflict is changing with the emergence of the newly industrializing countries, exporting not only cheap labor-intensive manufactures but also a growing range of capital-intensive goods. This aggravates the difficulties of some sectors in the industrialized countries which were already suffering from overcapacity; and it is feared that expansion of the new industries in the Third World could prolong the condition of overcapacity through the 1980s, and thus undermine the health and profitability of these industries, some of which have extremely vulnerable price structures.

It is ironic that, after two decades of worrying about the inability of the less developed countries to grow, we are now so concerned about the success of some of them in doing so. Up to a quarter of the population of the Third World lives in countries which have either been catapulted into wealth by the propulsion of the oil price or achieved takeoff in their industrial growth. Another half lives in China and India, which whatever their general economic problems have both demonstrated the potential for sophisticated industrial development. Instead of a stagnating southern majority of the world economy, therefore, we can expect a long period of intensifying industrial competition from countries which contain about half the world's population.

The Multi-Fiber Arrangement and a growing number of other sectoral measures, both national and multinational, are designed to

*North-South trade will be the subject of a forthcoming Trilateral report.
damp the impact of this competition on the exposed sectors of the industrialized countries. The selective use of safeguards which some industrial countries insist on is also often directed at imports from the newly industrializing countries. Such measures cause friction. But the industrialized countries should be able to keep them within bounds if they are seen in the context of the general growth of trade that will result from the development of the world economy, and are accompanied by adaptive industrial policies.

The industrialized countries must view with great satisfaction the new growth in the Third World. More prosperity for so many people can only be a cause for gladness. The history of international economics since Britain took the first steps in the industrial revolution has shown, moreover, that the spreading of industry to new countries leads to more trade, international specialization and welfare, and the strains experienced in accommodating these countries into the international economy should be seen in this context.

The process of accommodation is usually seen in terms of a technological ladder, which the industrially more advanced have to climb as the newly industrializing occupy the rungs below. The higher rungs used to be defined as capital-intensive and the lower ones as labor-intensive, but this dichotomy no longer holds, since some of the newly industrializing, such as Saudi Arabia and South Korea, have leapt rapidly into capital-intensive sectors. The sectors which the newly industrializing enter may be described as those with mature technologies, while the areas of future growth for the more advanced are now variously called skill-intensive, science or information based, innovative, software, tertiary or, encompassing any or all of these in a monetary measure, high in value-added. Following this evolution of thinking, the emphasis of policy in the industrialized countries should move towards the encouragement of skills, research and innovation rather than capital investment as such.

The ladder is a useful metaphor, if only to focus attention on discerning the character of the rungs above and hence on adapting the economic environment, including education, training and other infrastructure, in a way that helps economic activity to flow in those directions. The growth of a number of newly industrializing countries is, however, very rapid. Since catching up with the leaders is easier than inventing the future, this fast growth may well reflect a pattern of eventual convergence on the highest rungs of the future, rather than the permanent maintenance of the existing rank order. While such a process would take many decades and perhaps even some centuries to spread through the world as a whole, some countries, including such
major economies as Brazil and Mexico, could relatively soon reach the ranks of the industrialized. It is not too early, therefore, for thought to be given to the implications of this for international institutions, including in particular the OECD, and for the world balance of industrial and political power; and to consider what strain may be placed on the world's resources as the number of industrialized countries increases until they contain, perhaps, one half or three quarters of the population of the world, and even eventually the whole of it, instead of between a sixth and a quarter of it as at present.

It is within a perspective such as this that our countries should view the implications for industrial policy of the newly industrializing and the developing countries. The Third World will probably continue to have a big trade deficit with the industrialized countries, reflecting the purchase of equipment for development. This will help some sectors in the industrialized countries to grow and thus offer employment to people who move out of the sectors into which inroads are made by Third World exports, although the gains and losses are likely to be unevenly distributed between the countries or regions that are major exporters of equipment and those that are not. The speed and uneven distribution of the impact will doubtless continue to justify measures to control the rate at which employment is reduced in particular hard-hit sectors, provided that the restrictive measures are accompanied by adequate policies of adjustment. The Dutch have established a system specifically designed to adapt their economy so as to make room for imports from developing countries. While this merits close examination by other industrialized countries, there may be disadvantages in associating the rundown of industries formally with imports from developing countries, which are usually less to blame than changes in technology and demand. It may well be found that adjustment to such imports is best handled as an integral part of general industrial, manpower and regional policies.

D. THE SOVIET UNION AND EASTERN EUROPE

Selective safeguards are quite widely applied to imports from state-trading countries. The Soviet and East European systems of price determination and investment decision are different from those of market economies. Microeconomic interventions are therefore justified to prevent market disruption by imports whose prices and quantities may be irrational by our standards. Defense against disruption has usually been sought through import quotas or anti-dumping measures.

With the growth and more open orientation of East European
economies, there has been a rapid growth of East-West trade and technology transfer. It has a sound economic justification, as the level of trade is still unnaturally low. Provided that politics allow, this growth is likely to continue. The problems as well as the benefits of East-West trade will consequently also grow.

The instruments of trade policy have been refined in recent years. Some countries have a speedy procedure for invoking anti-dumping duties. There are agreements with East European countries to keep their prices at or above a nondisruptive floor level. Such arrangements are quite legitimate. But however the package is wrapped, consumers in Western countries are being deprived of bargains they would like to take up and industries protected against competition that could be healthy. Even where this is not required by GATT obligations, such protection should therefore be accompanied by measures of adaptive industrial policy so that the protective devices can, where possible, eventually be rendered redundant.

Concepts of industrial policy could also be brought to bear on buy-back agreements. Payment for technology and capital equipment in the form of the resulting products can be a valid economic transaction. But if the products are to be bought back at uneconomic prices or quantities, there is no economic logic in any resulting market disruption. This is not likely to occur where the goods are being bought back by manufacturers who have an interest in the stability of the price structure in the western market. But by no means all of buy-back is in such hands. There are therefore grounds for official monitoring of proposed buy-back contracts, in the light of an analysis of supply and demand prospects in the relevant sector, to ensure there is not a strong danger of market disruption in the future. This implies an industrial policy with a view of sectoral prospects well enough worked out to justify such restrictions. Where markets are international, such action may have to be internationally coordinated. More positively, it may be possible to adjust the industrial policy of the western country and the investment plan of its eastern partner so as to provide for a specialization that will ensure stable and nondisruptive trade in the future.

E. SECTORAL ARRANGEMENTS AND COMPETITION POLICY

Textiles
Differing views can be taken of the Multi-Fiber Arrangement. In one perspective, to which we referred above, it has added half a dozen years of restriction to the dozen of its predecessor, the Long-Term Cotton
Textile Arrangement. Far from relaxing with time, it has recently become more restrictive. In another perspective, the steady growth of trade under the Arrangement compares favorably with the results of protection in earlier periods; the developing countries’ share of world textile production has risen; and the maintenance of trade growth during the current recession, even if at a reduced rate, is no mean achievement. In either perspective, there is a need for more widespread and effective policies of adjustment; and this requirement should be built into any future arrangement, adding adaptive industrial policy to trade restriction. One proposal that industrialized countries should consider is for them to put the proceeds from tariffs on textile imports into a fund for adjustment of this sector. In a more ambitious version, the fund could be an international one, offering matching grants to countries ready to make suitable efforts of adjustment.

Steel
In contrast to textiles, formal multilateral action relating to steel is at a minimum. As earlier sections have shown, the United States and the European Community have both taken action to deal with steel problems that checked imports, raised prices and pose questions about the future. While each area will probably carry on its own process of adjustment, they will affect one another and Japan and take place in an international setting. One new and potentially very important part of that setting is provided by the new Steel Committee established in the OECD in 1978.

In contrast to most such committees, this one starts with not only an assignment, but a series of commitments by the participating countries. Among the principles each has accepted are the following*:

1. crisis trade measures should be consistent with GATT provisions; be as limited and temporary as practicable; be reported promptly to the Steel Committee and the GATT; be the subject of consultation with other interested participants; and take account of traditional trade flows. Price guidelines should conform with the International Anti-Dumping Code, be limited to the period of the crisis, and not exceed normal prices or full costs of production (plus delivery costs) in the supplying countries.

2. to refrain from destructive competition in official support of export credit and to follow the existing general agreement on these matters. This will “contribute to the avoidance of competitive subsidization of such exports.”

*The text of the Council decision from which these points and the quotations are taken is in the OECD Observer (November 1978), pp. 27-29.
3. to refrain from shifting the burden of adjustment to other countries. Further, as a general rule, domestic measures should not prevent marginal facilities from closing in those instances where the facilities cannot become commercially viable within a reasonable period of time.

4. to provide effective programs for redeployment of steel workers into other jobs and exchange information on what means are effective for this purpose.

5. to report restrictions of trade in steelmaking materials to the Steel Committee and to consult affected parties.

Not surprisingly, these principles sound very general and one would not have to be a cynic to question how closely governments will adhere to them. Nevertheless, they ought to be taken seriously. Some of them are, in fact, quite specific. Even the general ones represent statements of principle that do not exist in other fields, or with regard to economic policy in general. As to the governments respecting them, that is the essence of the whole affair: If governments are not prepared to cooperate in these matters, issues will be handled in ways that increase friction, not reduce it. After its first meeting the chairman of the committee called it "an experiment—the most ambitious of its kind yet tried in the OECD."*

One of the most experimental aspects of the new committee is that Brazil, India, Mexico and South Korea—four leading nonmember steel producers—have been invited to participate in its work. The first order of business is a review of existing steel policies and the collection of data. But no long delay should be tolerated before the Committee begins to serve what the chairman said was its main purpose: "to influence national policies before any measures are taken, so that, if and when measures are adopted, it will be with full knowledge of their consequences and of the reactions of other countries."

In what direction this influence should go is a matter beyond the scope of this paper. In the initial stages, the central problem is to hold to a minimum the international difficulties resulting from the measures being pursued in each of the main centers. If demand revives before too long, this may suffice. European price support and capacity reduction measures may bring that area into balance. The American trigger price mechanism may well be easier to remove or modify than direct import controls or a complex multilateral agreement. For Japan the central question will probably be how to use existing plant most efficiently without completely free access to the American and European markets,

and perhaps, before long, what estimates to adopt as to the growth of future demand in Japan and the rest of the world.

Even in the short or medium run, there will have to be measures of adjustment in Europe and the United States. How these are to be carried out has to be left to the public authorities and industries of each area. In the Community those who see the need to reduce capacity naturally encounter resistance from workers and communities directly affected. There are also differences among the national governments (and between them and the Commission) as to the parts each of them play in determining where contractions should take place and what help should be given to the producers who remain. In the United States the emphasis is on how to hold down costs, improve productivity and efficiency, and finance new investment. What part the U.S. government will play in this process is not at all clear but steel users and the general public may not have great confidence in the idea that it is sufficient to hold down foreign competition to get the best possible response from the steel industry.

For their part, American steel producers will quite properly argue that as long as the rules of international trade and the practices of foreign countries do not ensure “fair competition,” they cannot be expected to accept the idea that “free competition” will produce the best possible results for the country as well as themselves.

If adequate adjustments do not take place in the short or medium run, or if the resulting balances can be maintained only by some form of government intervention in one or more of the three centers, it will be essential to maintain a high level of international understanding about the situation. Otherwise new friction is bound to arise which could create political as well as economic difficulties among the industrialized countries—and with the newly industrializing countries as well, as they expand their steel production for use at home and for export. The proper prescription may again be consultation and information, but more formal agreements will have to be considered. These might be concerned primarily with the level of international trade or the prices at which steel products are bought and sold. The emphasis might be on those practices which are thought to constitute fair or unfair trade. But since a strong steel industry is regarded as a basic requirement for a strong industrial economy, the governments may feel the need to focus on capacities and productivity. The former might lead to some understanding about the degree of self-sufficiency to which it is reasonable for Europe and the United States to aspire (on the assumption that Japan will have substantial export capacity for some time to come). But to assure adequate productivity in what will be in part a protected
industry will not be easy for either Europe or the United States, so their concern will have to be how to achieve a high level of efficiency by international standards and what part exposure to international competition plus wise structural policies at home can contribute to these results.

Shipbuilding
The difficulty of securing international agreement on capacity reduction is confirmed by the history of discussions on shipbuilding in the OECD. In one working party, the Japanese agreed to reduce their share of the world market and it has been accepted that subsidies should be related to a scrap-and-build scheme. But the plan that OECD countries would proceed to a general reduction of capacity has not been fulfilled. All governments save one have submitted proposals to reduce capacity by 25 percent or more; but Britain has failed to do so. Even if the majority were ready to defend their action by controlling their imports of ships from the nonparticipant this would hardly be effective, since there is a world market in ships and the minority could sell elsewhere. An international fund to compensate the firms and workers affected or to promote new employment opportunities would be a more usable instrument; but experience in the Community indicates that such a fund would have to be large, and even then might be insufficiently persuasive in the more politically sensitive cases. Despite these obstacles, governments may eventually find it in their collective interest to accept a system of incentives or sanctions to ensure capacity reductions in sectors where overcapacity has such an evidently damaging effect.

Aircraft
Another type of sector subject to highly charged politics is a high-technology, defense-related industry, such as aircraft. Even the most industrialized countries feel that they must protect and promote such industries. International dealings can be the province of foreign policy and conflict management. Yet even here, much of what governments do is within the normal field of industrial policy, as has been demonstrated by the agreement on this sector reached among several countries in the MTN.

Competition Policy
While much of the current discussion about individual sectors concerns the possibility of international recession cartels, another approach would be an international effort to make competition work more effectively. The ITO Charter of the late 1940s embodied an effort to prevent private
restrictions from distorting trade after the public restrictions had been removed. Since the Charter fell to the ground, there has been no comparable international action though the European Community has its competition and anti-trust policy, enforced by the Commission and the European Court. A number of factors give renewed interest to the questions. These include the emergence of official or mixed public/private international cartels, such as OPEC and some recession cartels in the European Community and Japan, as well as the possibility of wider arrangements in sectors such as steel or shipbuilding; the more or less voluntary restraints on trade that are involved in OMAs or comparable arrangements; and more ambiguous ideas of an "orderly transfer" of some industrial sectors from the industrialized to the developing countries. Global oligopoly in some fields is bound to give concern, especially where it appears to be increasing even if it may be accompanied by sharpened competition in more open world markets.

To the extent that national industrial policies emphasize competition, governments may increasingly be concerned with the behavior of "their" companies in foreign markets. Thus there is a conflict between the effort to apply national laws and standards to international activity and the opposite approach which would resolve such conflicts by leaving it entirely to each national government to negotiate with the foreign businesses within its borders. Whether a clear-cut choice should be made, some balance struck, or some new international method developed to handle certain issues are all questions that seem bound to arise before too long. With the increasing internationalization of business, it is hard to avoid the conclusion that national governments will have to cooperate to deal with some of the international problems and that this may lead eventually to a form of international competition policy.

F. GENERAL INDUSTRIAL POLICY MEASURES

To concentrate on the difficulties of each sector in isolation could be self-defeating, as it ignores the context of general industrial progress and international cooperation in which the problems of troubled sectors can be solved.

The OECD has already gone some way towards developing a general approach with its guidelines for industrial policy. The section of the OECD statement in which these guidelines were set out is reproduced in Appendix I of this paper. As was pointed out above (pp. 48-49), they are similar to the approach taken in this paper. They indicate that measures of industrial policy should be as temporary, degressive, transparent and general as possible, be accompanied by measures of
adjustment and ensure sufficient domestic and international competition. While they go farther than any previous international declarations on the subject, such a summary statement invites amplification and procedures for implementation.

Transparency of industrial policy measures and of their costs is a good principle, helpful to the cause of rationality in national policies as well as international accommodation among them. The question follows as to how transparency is to be achieved and to be used in international discussions. There is much to be said for the idea of annual national reports containing details of all subsidies and of their estimated net costs and benefits, versions of which are practiced in the German Subventionsberichte and, to a degree, in reports by the Joint Economic Committee and some of the economic impact statements in the United States. Such reports can bring to public attention the costs of subsidies, and thus bring pressures to bear against unjustified expenditures, while at the same time giving grounds for support of those measures that can reasonably be thought to provide a net benefit. While domestic pressures are likely to be the most effective in restraining excessive expenditures, international discussion of the national reports would offer an occasion for joint analysis of industrial policy problems and for early notice of impending international difficulties which might, if not noticed in time, give rise to serious conflicts.

The OECD guidelines are closely related to the trade policy aspects of industrial policy and more concerned with limiting the defensive rather than encouraging the positive type of policy as we have described them. Policies designed to encourage research, development and innovation do not need to be temporary and regressive; and given the small number of firms involved, support for most high-technology sectors can hardly be very general. There is also a need for international cooperation in a wider perspective than the guidelines envisage. Are there, for example, any coordinated measures that could be taken to encourage investment or innovation? Could international concern about subsidies and public procurement go beyond the limitation of protection envisaged in the new GATT codes, towards joint action to fulfill common objectives? Could national industrial policies be adapted to favor international specialization? And could an international body play a part in promoting this? In furthering the support for small and new firms that is now a feature of policy in many OECD countries, should the OECD go beyond the exchange of information about national policies and sponsor an institution to help small firms establish business links in other member countries, much as the European Community has already done? Similarly, would adjustment policies be helped not
only by the exchange of information on national policies but also by an OECD "Social Fund" to support specific measures of adjustment in member countries? Answers to such questions might emerge from a process of annual discussions about selected aspects of industrial and other structural policies, such as the OECD has organized in the field of macroeconomic policies. These could focus on the positive and adaptive types of industrial policy, with the primary aim of encouraging their development in the individual countries. The identification of opportunities for joint international measures of this sort would be a useful by-product.

In addition to the need for information about policies and subsidies, there is also a need for better knowledge about worldwide trends in key industrial sectors. Short-term trends in certain sectors are already monitored by the OECD; and a start has been made with longer-term analyses by the Interfutures project. The detailed sectoral reports of the Interfutures project should be published without delay. But this work needs to be undertaken on a continuing basis, with the participation of industry representatives as well as researchers and officials, and with as much information as can be obtained on investment projects and plans as well as on trends in production and demand. An institute should be established for this purpose, located near but not in the OECD. It should have links with centers in various countries doing similar work. Only if such work is done will the problems be understood in context and new trends identified in time. This would facilitate both an assessment of the effects of industrial policies and an early-warning system for approaching problems of overcapacity.

An early-warning system is not of course infallible, particularly as regards projections on the demand side; nor, even when an accurate view of the present and nearer future is given, can a wise response by industries and governments be guaranteed. But it would be pessimistic indeed to suppose that better decisions will be taken without good information than with it. A major effort to be well-informed about industrial prospects and policies would make it possible to identify problems more quickly and thus to prepare a multilateral capacity to deal with those that have international implications. For this, as well as for other purposes of international cooperation in the field of industrial policy, a new institutional vehicle would seem to be required.

G. AN INSTITUTIONAL FOCUS:
a working party on industrial policy

Questions of adjustment policy will arise in committees set up to super-
vise the new GATT codes on subsidies and procurement. Any action on safeguards will raise similar issues. Some aspects of industrial policy are discussed in UNCTAD and other UN bodies. The developing countries have their own forum in the Group of 77. In view of the common structural problems of the industrialized countries, the importance of the policies they have been developing to deal with these problems, and the major implications for their mutual relationships, the OECD countries need a stronger institutional framework than they have at present for their cooperation in these matters.

A committee on the pattern of the OECD Working Parties would be the most suitable. Because the various branches of structural policy—manpower, regional and capital market as well as industrial policy—are so closely interrelated, the committee's brief should include all of them and representation in it should vary according to the subject under discussion, as is the practice of the Working Parties. In order to help give the subject and its international implications the proper weight, the representatives should be at a high level, as has been the case in OECD's Working Party Three.

While the first members would be OECD countries, an early item on the Working Party's agenda should be how to involve newly industrializing countries on an equal basis in its work. The right relationship would also have to be established with the OECD's committees on different aspects of structural policy (for example, the Industry Committee, the Manpower and Social Affairs Committee and the Committee for Scientific and Technological Policy) and with the committees supervising the GATT codes. The Working Party should also have a very close relationship with the institute which we propose for the collection and analysis of sectoral information on worldwide industrial trends.

The OECD guidelines would be a starting point for the Working Party. In line with our earlier suggestions, the Working Party should broaden them to include the positive aspects of industrial and other structural policies; and it should institute procedures to encourage the governments to translate them into concrete reality. One such procedure would be the production of annual reports on the economic impact of subsidies and their discussion in the Working Party; OECD staff would be well placed to offer those governments that want it advice on the technical problems of impact assessment. A second procedure would be the annual review of a selected aspect of structural policy.

The Working Party would begin with the analysis of information, followed by consultation on national polices. Only when a sufficient consensus is reached would it be realistic for common action to be proposed.
Transparency itself would help to improve the national policies and to avoid unnecessary collisions among the participating countries and between them and other parts of the world. Behind any specific measures should lie a set of ideas and a strategy for industrial development. As industry becomes global in its markets and its organization, the ideas and the strategy will have to become global too. This in turn will imply a strengthening of international institutions, with potential implications for sovereignty which most of our countries are far from ready to contemplate. We hope that this paper will help to give some perspective on these large and long-term issues, while stimulating discussion on some of the more immediate industrial problems and policies of our time.
VI. SUMMARY OF CONCLUSIONS AND RECOMMENDATIONS

1. The hard economic climate of the 1970s has brought out structural weaknesses in the industrialized countries. Technological, social and international forces have stepped up the pressure for change; social preferences, slow economic growth and the capital and skill intensity of modern industry have raised both the cost of change and the resistances to it.

2. Governments have responded with structural policies, designed to affect the allocation of resources within the economy. These include manpower, regional and capital market policies. Here, however, we are concerned mainly with industrial policy, which aims directly to affect the structure of industry, for example through measures relating to sectors of industry or types of enterprises; to innovation, research and development; and to competition policy. Industrial policy should be coordinated with the other branches of structural policy.

3. Industrial policies can, to be sure, lead to waste, inefficiency and protectionism. Many examples can be found; some are given in our report. But our approach, while taking full account of social needs, differs diametrically from a concept of industrial policy that amounts to defensive interventionism. A sound industrial policy must recognize that the enterprise sector is the prime mover in the economy. Its premise is that market forces and entrepreneurship are the foundation of our economic system; it works with and not against them; it enhances them through anti-trust and competition policy.

4. In this way public policy can help to strengthen industry and facilitate the structural transformation of the economy. It can contain or weed out the economic and social measures that reduce the dynamism of industry, and smooth the way towards an economy that is more skill-intensive, science-based, innovative and high in value-added. Positive industrial policies can promote innovation, research, development, investment and the establishment of new firms; and this can be linked with manpower policies that ensure training for the necessary skills.

5. Industrial policy can also buy time for infant or declining sectors. Too often such measures are purely defensive and the sectors remain uncompetitive. We give examples, however, of adaptive policies which use the time bought to help the sectors become competitive or to shift the resources into other, more viable activities. These include the transformation of textile industries in Germany and Sweden and the “recession cartels” in Japan, which have in the past stabilized various sectors
for limited periods while bringing their capacity into line with demand.
6. We have summarized the proper aims and criteria for industrial policy as follows:
   (i) efficiency, including long-run efficiency in the form of a dynamic economy.
   (ii) the limiting of regulation and bureaucracy in the interests of freedom and the health of the market system.
   (iii) social aims, such as a good environment, job security and high levels of employment locally as well as nationally.
   (iv) security, both strategic and economic.
   (v) international cooperation and the health of the international economy.

There are often difficult tradeoffs to be made among these aims and different countries may make different choices.
7. We have summarized the criteria for implementation of industrial policy as follows:
   (i) a properly functioning market is the most important instrument of policy.
   (ii) more general measures are preferable to more specific ones.
   (iii) defensive or stabilization policies should be accompanied by positive policies and hence be adaptive.
   (iv) thus policy should help industry towards long-term efficiency, with the direction of adaptation determined mainly by the market and enterprise system.
   (v) defensive or stabilization measures should be temporary and degressive.
   (vi) industrial policy should be as transparent as possible.
   (vii) industrial policy should be based on an effective working relationship of government, business and labor and implemented whenever possible by voluntary concertation.
8. While industrial policies are made for the most part by national governments, the industries operate in an increasingly international market. National policies may unintentionally distort this market, or they may constitute deliberate protection against international market forces. In either case, international friction and conflict can result.
9. The divergences between national policies are great, reflecting differences of politics and culture as well as economic structure. If cooperation rather than conflict is to be achieved, these differences must be respected and understood.
10. To turn back the tide of protectionism, the industrialized countries must at the same time adjust their policies so as to minimize damage to their trading partners. One method is to reduce and phase
out their defensive measures; the other is to make their industrial policies more adaptive and positive. So far from being a protective device, industrial policy then becomes a way to root out the causes of protectionism.

11. Arising from the Multilateral Trade Negotiations, the codes on subsidies and public procurement should be properly implemented so as to reduce defensive measures in these fields. Among other benefits, this will lead to a more rational pattern of international investment and of operations by multinational companies.

12. Agreement should be sought on a code on safeguards that would permit temporary and degressive measures under international supervision only if they are accompanied by policies of adjustment. The governments of industrialized countries should take this requirement to implement adaptive policies very seriously indeed. They might consider establishing an international fund to provide an incentive.

13. Relations with the Third World are being transformed by the emergence of the newly industrializing countries. While this intensifies competition, it also offers a rapidly expanding market particularly for capital goods. It is in the interest of industrialized countries to keep the imposition of safeguards to a minimum and to stress the accompanying adaptive policies. General policies of adaptation towards an economy with higher added value are likely to be more effective than "fire brigade" policies applied only when safeguards are imposed.

14. The difference between economic systems will often justify the use of safeguards on imports from the Soviet Union and Eastern Europe. But here too, protection should be accompanied by adaptive industrial policies where there is reason to believe that the exporter has a comparative advantage. Where an accumulation of buy-back deals threatens future market disruption, it may become legitimate to control them on the basis of a considered view of future sectoral prospects. Where markets are international, such action may have to be internationally coordinated.

15. A requirement to employ adaptive policies should be built into the Multi-Fiber Arrangement or any future arrangements of this kind.

16. The governments participating in the OECD Steel Committee have committed themselves to a number of principles and the Committee is collecting data and reviewing national policies. Governments should take these commitments seriously and be prepared to adjust their policies in the light of the review. It is hoped that this will suffice to overcome the crisis. If not, it may become necessary to move towards some kind of multilateral agreement concerning matters such as levels of trade, prices, capacities and degrees of self-sufficiency.
17. The difficulty of securing international agreement on capacity reduction is shown by experience with shipbuilding.
18. An alternative approach for some sectors lies in an effective competition policy. The dichotomy between national policies and international markets gives rise to a conflict between domestic and extra-territorial jurisdiction. This may eventually have to be resolved by a form of international competition policy.
19. Sectoral problems will be more easily solved in the context of a general adaptive policy. The OECD has gone some way to develop a general approach with its guidelines on industrial policy. While this is a useful step, it needs procedures for implementation.
20. One such procedure would be the production by industrialized countries of annual national reports on major subsidy items. While the main effect of such reports would be through domestic pressures, international discussion of them would also be valuable.
21. Whereas the OECD guidelines mainly concern defensive policies and ways to make them adaptive, international discussion should focus more on positive policies. This could emerge from a process of annual discussions about selected aspects of industrial and other structural policies, such as the OECD has organized in the field of macro-economic policies.
22. There is also a need for better knowledge about worldwide trends in key industrial sectors. The detailed sectoral reports of the Interfutures project should be published without delay. But this work needs to be done on a continuing basis, with the participation of industry representatives as well as researchers and officials. An institute should be established for the purpose, located near but not in the OECD.
23. A Working Party of the OECD type should be established for international discussion of industrial and other structural policies. While the first members would be OECD countries, an early item on the Working Party’s agenda would be how to involve newly industrializing countries on an equal basis in its work. Governments should commit themselves to representation at a level as senior as that in the OECD’s Working Party Three.
24. The method of work would start with data collection and analysis. Only when consensus is reached should such a Working Party envisage any concerted action.
25. The assurance of transparency of policies would itself be an important step forward. It would help governments to work towards a global industrial strategy that reflects the growing interdependence in the world economy, and thus to bring the system of international economic cooperation into line with reality.
APPENDIX I: THE OECD "ORIENTATIONS"

The following is an extract from the Communiqué adopted by the OECD Ministerial Meeting in June 1978.* It is taken from the Communiqué’s Annex II, entitled “Policies for Adjustment: Some General Orientations.”

INDUSTRIAL POLICY

In responding to requests for help from enterprises in the industrial sector in financial difficulty, it should be recognized that under normal conditions there is usually a presumption against selective action to assist loss-making activities, in favor of more general measures. Where the difficulties being encountered are mainly cyclical, they will normally be best handled by measures to facilitate access to external sources of finance and to raise demand and improve profitability in the economy as a whole. Even where the difficulties are more deep-seated, reflecting unanticipated adverse trends in demand or competition from other sources of supply, special intervention will normally only be justified if the economic or social costs of the necessary adjustments are likely to be unacceptably high in the short run, and cannot be adequately handled through existing policies to ease the burdens of adjustment. Thus, cases where specific action to protect or support individual sectors or companies in financial difficulty can be justified, and are likely to be successful, should be relatively rare.

Where, nevertheless, governments find it necessary to intervene, experience has shown the importance of the following criteria:

(i) Action should be temporary and should, wherever possible, be reduced progressively according to a prearranged timetable.

(ii) Such action should be integrally linked to the implementation of plans to phase out obsolete capacity and reestablish financially viable entities, without, however, seeking to raise prices above levels providing an adequate return to efficient producers.

(iii) The cost should be made as evident as possible to decision-makers and the public at large. Careful attention should be paid to the cost to consumers of action which raises prices, to the cost to taxpayers, and to the effects of subsidized competition on employment elsewhere.

(iv) Where public funds are being injected into the private sector, it is desirable that private risk capital should be involved.

*OECD Communiqué A(78)23 of 15 June 1978.
(v) Assistance given on a company-by-company basis should be framed so as to provide an incentive for improved management practices, notably by ensuring sufficient domestic and international competition.

(vi) Where the primary objective is to support employment in particular regions or towns, consideration should be given to action that can benefit any eligible company in the area concerned, rather than only those in financial difficulty.

(vii) While recognizing that governments must pay due regard to the interests of national security, care should be taken to see that arguments based on considerations of self-sufficiency should not be misused to justify measures for protection and support.

To varying degrees, OECD governments have tried to follow industrial policies aimed at “picking the winners.” Experience shows, however, that this is far from easy, particularly for industrial countries at the frontiers of technological progress and changing patterns of consumption, and possessing roughly similar factor endowments and management skills.

There are, however, directions in which according to country circumstances, policies based on rational economic criteria may seek to supplement market forces in promoting desirable developments. For example:

(i) There are certain areas where markets are unlikely adequately to reflect and anticipate future economic and social needs. This applies, for example, to research and development and investment in producing and saving energy; to improvements in environmental quality, health care, urban infrastructure, etc.

(ii) Recent difficulties have caused many companies to reduce long-term research in advanced technologies involving large investments, in favor of research to meet more immediate requirements. Governments should, therefore, ensure that adequate incentives for long-term research and development exist.

(iii) Since much technological progress and response to changed demands has come from small and medium-sized companies, there is a good case for strengthening policies designed to ensure that they have adequate access to venture capital and incentives and opportunities to innovate, specialize and modernize.
APPENDIX II: SUMMARY OF DISCUSSION
IN TRILATERAL COMMISSION MEETING

(TOKYO, APRIL 24, 1979)

The penultimate draft of the above report was discussed at the plenary meeting of the Trilateral Commission in Tokyo in late April of 1979. The following summary presents the substance of that discussion, in which twenty persons aside from the authors participated through spoken and/or written interventions. Many of the interventions were so solid and instructive regarding aspects of a very complex, controversial and hard to define subject, that it was deemed worthwhile to share their substance below. The report itself was somewhat revised in response to the discussion.

A. MARKET FORCES AND SOCIAL OBJECTIVES;
ENTERPRISES, TRADE UNIONS AND
GOVERNMENT INVOLVEMENT

Participants generally appeared to recognize what the authors called “the challenge of structural change.” There was general recognition of the utility of positive industrial policy in seeing us through these changes, even among those participants skeptical about the prospects for success. One major area in which criticisms of the draft report emerged concerned the appropriate roles in industrial policy and policy-making for market forces and social aims, and for enterprises, trade unions and governments.

Social Policy is Part of Industrial Policy
A European trade union leader took the authors to task for overlooking some basic social factors “without which . . . no positive industrial policy can function.” His remarks invite extensive quotation:

“As a trade unionist, I find it unacceptable to discuss industrial policy with only one objective in mind—that is, to develop factories and companies like highly-trained sports teams competing at the Olympics so that continuous economic growth can be achieved. In such a competitive system the weaker ones will drop out early on, even before entering the preliminary competitions. This means in reality—as
we see it—that among the long-term unemployed the percentage of young people, women and elderly workers is steadily rising, while skilled workers are still in high demand. Therefore, in our opinion, social management of structural processes and of technological progress must be given priority. This is also in the best interest of the economy, because there can be no economic and technological progress without its social equivalent—at least most certainly not in societies which are oriented towards mass consumption as strongly as ours. Progress which does not provide for social security and social evolution cannot be called “progress.” It would certainly also be wrong to leave the solution of social questions to the self-healing forces of the market under the assumption that economic growth automatically brings about social progress. Socio-political measures can only be conceived of as an integral part of industrial policies.

"I was somewhat surprised to see that the report seems much more ready to accept protectionist measures against imports from Eastern Europe than from developing countries. It is true that the centrally planned economies, by fixing prices arbitrarily, bring about a distortion of the market. However, the same is true of the exploitation of the social imbalance between industrial countries and the Third World.

"The ... international trade union movements try to contribute to the industrial development of the Third World in practical terms. This industrial development, however, must first of all benefit the majority of the population, including the workers. Without a social component, those who benefit from this development would be limited to the owners of the means of production, both inside and outside the developing countries.

"In particular, the multinational corporations have increasingly been transferring factories from the industrial countries to countries with low wage levels. I am not asking here for equal wages for equal work. Today at least this is still a futuristic demand. However, I would like to voice my opposition in view of the fact 1) that the ILO conventions for the protection of the workers still are not respected, 2) that the freedom to form trade unions and to negotiate collective wage agreements is still being denied, and 3) that the lack of such fundamental social rights is being used as an incentive for investment. What is more, we have established the fact that many of the investments of foreign firms do not even help to ease the unemployment problems of these countries.

"The fact that under such circumstances (European) workers are not happy when their jobs are transferred should be easily understood by everyone. Equal social conditions belong together with equal condi-
tions for economic competition. For this reason, the International Confederation of Free Trade Unions has called for a social clause to be inserted into the Tokyo Round of the GATT negotiations. For this reason, our American colleagues have called for the application of the Fair Labor Standards to economic relations with the developing countries. For this reason, the Confederation of European Trade Unions has called for the insertion of a clause concerning social conditions into the European Community's second ACP agreement.

"In the report, the efforts of the workers to defend what has been achieved so far in the way of social rights are often described as impeding structural changes. That is something which trade unions cannot accept. And that is also not even correct! One has to get used to the idea that social policy is a part of structural policy."

**The Desirability of Trade Union Involvement**

A Japanese trade union leader emphasized the positive importance and value of trade union involvement in the formulation of industrial policy, which he felt the draft report neglected. "There will be a difference at the time of implementing an industrial policy depending upon whether there was any prior consultation with trade unions or not at the stage of policy formulation. That is to say, when cooperation of the trade union is assured, relatively smooth development of the policy would become possible. If not, it would incur unnecessary resistance from workers. It was after 1960 when Japanese manufacturing industry made rapid progress, and what sustained such a development was, I believe, the spread of the joint consultation system between labor and management of industry. It was in 1955 when consultation on management policies and industrial policy began among labor and management of major industries. In those days, even trade unions themselves were divided between pros and cons for such a system, and most of management was opposed to it. However, after ten years, more than 90 percent of the companies which had collective agreements between labor and management incorporated the joint consultation system in their agreements. The consequence was that the introduction of technology was made fairly smoothly and the technology was assimilated in a short period of time. And it brought about a rapid increase in productivity."

**The Main Problem is Unemployment and Better Employment**

Another European trade union leader disputed the draft's "absolute confidence in market forces and entrepreneurship as basic factors of adjustment of the economic system." First of all, this view is naive. We must recognize "a distinction between market forces and market-
controlling forces”; and government policies are vital, sometimes making market forces appear to be a “residual factor.” Second, as others emphasized, industrial policy must be “adjusted to social needs and evolution.” In this regard, “the main problem remains unemployment and the necessity to provide better employment for the labor force.” We need deeper examination of issues such as the changing attitudes of younger workers and the implications for employment of high-technology investment. Third, as others stressed, trade unions must be involved in policy consultations from the start—the “orientation” of policy. This is necessary for consensus, and consensus is necessary for making a success of structural change.

“Economic Efficiency” Not Acceptable Highest Priority
The themes described above were also taken up by several other Tokyo participants aside from these three trade union leaders. A European was “surprised by the unconditioned belief in the enterprise, entrepreneurship and market forces” in the report, since, in Europe at least, most workers are not in industry, a growing proportion work for the government, and many citizens have mixed feelings about private enterprise and economic efficiency. An American argued that “to accord ‘economic efficiency’ highest priority, as an aim or value ahead of broader considerations of public interest and social welfare, is not acceptable in modern democracies.” He also stressed the desirability of labor’s participation in the making of industrial policy, “nationally, locally, or at the firm level.”

Government as “Forerunner” for the People
A European businessman and former government figure found “almost theological error” in the statement (later somewhat revised) that “the key entrepreneurial function is to devise a framework of thinking based on the major private wants and the great public problems that will arise in the 1980s and 1990s.” The key entrepreneurial function, he argued, is to be entrepreneurial, not this other larger function in which others should participate too. He likewise criticized the statement that “a view of the future direction of the growth in the economy . . . will not originate mainly in the minds of public officials” but rather with the enterprise sector. Some of this thinking should originate in the minds of government officials, he argued, and this is the essence of the cooperation between government and industry supported elsewhere in the report and best exemplified in France and Japan.

A Japanese banker emphasized the role of the government as the “forerunner” for the people in leading structural change. It is beyond
the ability of the private sector on its own to take care of workers in the midst of change out of declining sectors. Government can create new opportunities, such as it did with the nuclear power industry. Government action is crucial for "adaptive policy" to break out of the "whirlpool" in which many seem to be caught.

"Freedom" and Industrial Policy
The industrial policy approach outlined in the draft did not receive much criticism as excessively interventionist. From a "political philos- phy" perspective, however, one American found it hard to see how we can "implement industrial policy and at the same time not discount freedom," even though "freedom"—in the sense of limiting bureaucracy and emphasizing market forces—is advanced by the authors as one of the aims which industrial policy is to serve. History tells us these are conflicting goals; and if the authors cannot tell us more specifically in their final draft how industrial policy is to be made supportive of "freedom," their support for freedom seems "hollow."

A European banker suggested that governments have developed industrial policies largely because enterprises, so accustomed to markets and competition, have not been able to arrange the necessary measures on their own. Enterprises can develop industrial policy from a much more international perspective than governments; and he recommended international talks between major producers and purchasers to avoid overcapacity and the adjustment pain it creates. Another European businessman expressed a perhaps more general thought when he stated that "whether we like it or not, governments will take an increasingly active role in the economy when faced with difficult economic problems." He then went on to focus, as did most others, on important aspects of that active role.

Bad Industrial Policy May Foster Insidious Protectionism
An American economist with important government experience thought the report makes a "vital contribution" to the policy dialogue, particularly as a "consciousness raiser" in encouraging more attention on the part of top policymakers—which is very much needed—to "the supply side of the economic equation," to structural and industrial policy. At least in the United States, this is "an underdeveloped, under-discussed and not particularly well understood phase of economic policy in action." It is "an area which is a lot more difficult, more subtle, more elusive, and a lot less glamorous and dramatic than the broad questions of macroeconomic growth policy, expansion policy, locomotives, convoys, etc." It is "imperative that heads of state comprehend that the
encouraging progress on macro policy coordination and ... lowering tariffs and at least in getting a start on lowering non-tariff barriers can really be subverted by industrial and structural policies that may foster ... insidious protectionism. Unless countries move in tandem (on industrial and structural policies), they eventually may hang apart.” These points recalled the opening comment of one of the authors that we are not dealing with a “static situation.” There is an erosion of international economic cooperation, carefully developed in recent decades, he stressed, largely due to countries trying to take care of structural problems in damaging ways.

Another American despaired that the United States would ever be able to see “a host of national polices and actions ... in relation to one another and in relation to long-term and comprehensive goals,” which the report rightly argues is required for an enlightened policy. Such “planning” is exceedingly difficult for the United States, theoretically and practically. The required national consensus to see the “problem whole,” beginning with Congress and the Executive, is not in sight. In addition, the selfishness evident in current American public opinion runs directly counter to the willingness to share required for effective industrial policy. The Japanese experience may have elements useful for the other two regions here, but Japan also seems to be moving toward some of the less attractive aspects of North America and Western Europe.

Laisser-Faire Not Right Way to Make Markets Work Well
The authors responded to some of the above points in discussion. One stressed that the report does not mean laisser-faire when it supports working with market forces. Laisser-faire is not the right way to get markets to work well. Enterprises cannot be trusted to remain competitive without government policing. The working of markets differs according to the kinds of enterprises that operate in them, the products they deal with, and a variety of other factors. One of the distinctive emphases of the report is that making markets work well is in itself industrial policy. Markets, as another author put it, need to be “helped” and “complemented.”

With regard to social goals versus economic efficiency, the authors noted recognition of social objectives in their report, which they planned to make more evident in the final draft. Each social unit will make its own choices of values to emphasize. The point is that if a social unit tries to “freeze” the status quo, the members will eventually hurt themselves as well as others. The authors recognized the inadequacy in their discussion of labor’s role, while noting that many references to “indus-
try,” for instance with regard to consultations with government, were meant to include both management and labor—a point to be clarified in the final draft.

B. REGIONAL POLICY, REGULATORY MEASURES, TAXATION

Several interventions focussed on areas or aspects of government policy which the speaker felt were not given sufficient attention in the report.

“Explosion” of Regional Development Aids, Uncoordinated Sectorally
A European “practitioner” in the field of industrial development was disappointed that the authors had not allowed themselves to give more attention to the overlap between regional policy and sectoral policy (though he accepted “without any reservation” the recommendations the authors come to). “It is rather artificial to look only at the sectoral side and not to take account of the implications for sectoral policy of what is happening in regional industrial development policy worldwide today.” In the past four or five years, he stated, the “explosion in this whole business of regional industrial policy” has probably been “the most significant single development in industrial policy.” There are hundreds of billions of pounds of industrial investment, he estimated, which are influenced annually now by the actions of government and international agencies. The proposed automobile plant being peddled around Europe at the present time for “competitive bids” from governments, which an earlier speaker mentioned, is just one of very many similar projects being marketed in Europe and indeed worldwide at the moment. The volume of investment influenced in this way is “increasing by leaps and bounds.”

Since there is no discrimination by sector in these regional and national inducements to investment, this European continued, one can imagine the implications of this for some sectors worldwide. The EC has tackled the problem of coordinating the regional industrial development policies of the members, but because of the structure of the EC Commission itself, with different directorates-general for industrial policies, for competition, for regional policy and so on, they have focussed only on the regional aspects of this and have not attempted to coordinate the other forms of aids, sectoral aids for example. This participant then asked the authors if they shared his concern at the lack of coordination of this aspect of industrial policy, to which the authors answered in the affirmative, adding their hope that the proposed OECD Working Party would assist the coordination effort.
Government Regulatory Measures have Larger Impact on Industrial Structure

An American political scientist concentrated on the "major omission" from the draft report of a discussion of government regulatory policy—whose impact on the structure of industry, at least in the United States, is "significantly larger" than some of the policies discussed. "Over the past two decades," this speaker stated, "the most rapidly expanding realm of American government has been regulatory programs. Every year for the past decade three new regulatory agencies and programs have been created. The U.S. Federal Register, which registers U.S. regulations, has grown in the period from 1946 to today from 2400 pages to over 70,000 pages! The regulatory growth has not been an expression of partisan philosophy either. Under Presidents Nixon and Ford the regulatory explosion proceeded at a greater pace than ever before or since.

"The direct cost of American industrial compliance with these regulations exceeds $100 billion annually—twice our bill for imported oil. Studies done at the Kennedy School of Government at Harvard and elsewhere estimate the direct losses attributable to inefficient government regulations to amount to some $25 billion annually. For example, when the Occupational Safety and Health Administration (OSHA) was "forced to choose in attempting to limit industrial noise between, on the one hand, industrial reengineering of processes to reduce noise emissions at a cost of $19 billion over the next five years, and on the other hand, self-protective devices like earmuffs and earplugs that could achieve the same level of noise impact on eardrums at $43 million total cost, it found that choice easy—in favor of the former.

"The indirect costs of government's recent regulatory activity on basic capital formation processes and on the growth rate of the U.S. GNP is," this participant continued, "even more disturbing. Studies done . . . find that new government regulatory activity in the period 1967-77 cut U.S. productivity increases by approximately one-third, which meant, when translated, about a 1 percent handicap in the growth rate of U.S. GNP—which, if you translate that into the handicap over the next decade, amounts to some $200 billion of product not created or wealth foregone." These are "big numbers."

"If one looks at the impact of these government regulatory activities on industrial structures, their impact exceeds that of some of the policies discussed in the draft—including their impact on economic productivity, on the competitive position of U.S. industries vis-à-vis foreign industries, on the relative competitive position of firms within industries in the U.S. (for instance, the special handicap of small firms in tech-
nologically innovative areas in trying to deal with fifty different regulatory agencies), and on the structure of sectors in the U.S., including size, innovation and even location for research and marketing. For example, for the drug industry in the United States, a good portion of the marketing is now done externally because of FDA regulations.”

Taxation
Another American analyst hoped for more than “incidental reference” to taxation in the final report. Tax policy “must have something to do with investment and innovation in our industrial economies,” with problems that industrial policy “purports to address, frequently in a fraudulent fashion.” This participant found “wrongheaded” the U.S. approach of tax credits for investment in plant and equipment, favoring instead a substantial cut in the corporate income tax:

The “Arbitrariness” of Governments
A European argued that several policy areas had not been given sufficient attention in the report. He laid emphasis on the regrettable “arbitrariness” of governments, for instance in not respecting the sanctity of contracts (something business considers fundamentally important). He also saw big problems in proliferating government regulations—as in the field of product liability. Another European stressed “the need for a consistent set of policies toward industry.” The British government, he stated, provides subsidies to particular troubled industries and “is also generous in the various reliefs it gives to new investment generally. But more often than not, what the government gives with one hand it takes back with the other. These apparent advantages of British industry have to be viewed against, for example, the repeated resort to price controls which on occasion have seriously undermined the profitability of British industry.”

A Japanese scholar called for more examples of successful industrial policy to give a clearer idea in this complex area about “choice of industries, timing of policies, (and) speed in implementation of policies”—on which success or failure “depends very much.”

C. SUBSIDY REPORTS, OECD AND OTHER INTERNATIONAL ARRANGEMENTS

A European speaker strongly supported the recommendation for annual national reports on subsidies. He favored comprehensive reports, covering all subsidies at local and provincial as well as national levels, and
including tax relief. Nobody has any idea, he stated, even within a particular country, of the total of subsidies given to investment in that country. The people would protest if they knew the total; thus such reports should help limit subsidies. One of the authors later supported the idea of comprehensive reports, including somewhat elusive matters such as access to public funds (even without lower interest rates) and losses and financing of public enterprises. Another author emphasized that the transparency enhanced by such subsidy reports is “so important for mutual assessment” among countries.

A Japanese member strongly endorsed the recommendation that the work of the OECD Interfutures project be done on a continuing basis. He supported the proposed institute for this purpose, and stressed that it should not be isolated but rather linked to a network of institutions around the world providing input from home areas. Industrial policy, by its very nature, he stated, cannot be crystallized into clear overall principles applicable to many countries. This makes even more important the putting together and making available of information on various sectors and on developments and projections for each country. These comments recalled the points of one of the authors in discussion that the theoretical framework for industrial policy is not well-developed; that a “trial and error approach” is therefore rather inevitable; and that the recommended OECD Working Party is advanced in this spirit. A European had reservations about the proposed institute, but agreed that it is “sensible” for the OECD “to take this whole area of policy more formally under its wing and to give it a regular airing.” An American thought it was “timid” to recommend just a Working Party in the OECD. “The OECD is the organization to be used, but given the sweep of the assignment and the role—for instance, of working with the GATT in the development of the Tokyo Round codes, as well as existing OECD committees—some more exalted organizational means within the OECD should be considered.”

A European analyst supported a strengthening of international arrangements in the industrial policy area, particularly with regard to a complaints procedure so that “the judicial is combined with the negotiated.” A strictly “judicial” approach would not get us very far. Governments should be able to be taken to task not just for breaking rules but for not following a “reasonable convention” in this inevitably discriminatory policy area. Governments must very often discriminate among firms within a sector, a point which he was puzzled to find the authors avoiding as they discussed “sectoral” policy. Often one cannot generalize about a whole sector—textiles, for instance—as “it depends on the firm.”
The Industrialized Democratic Regions in a Changing International System

Inaugurated in July 1973, the Trilateral Commission is a policy-oriented organization. Based on analysis of major issues facing the trilateral regions, the Commission has sought to develop practicable proposals for joint action. The Commission's members are about two hundred distinguished citizens from the three regions, drawn from a variety of backgrounds.

The historical roots of the Commission can be traced to serious strains early in the 1970s in relations among Japan, North America and Western Europe. As the decade has proceeded, however, it has become increasingly clear that the strains and shifts in the international system are global as well as trilateral in scope. The renovation of the international system is a task of global as well as trilateral dimensions, and the work of the Commission has moved accordingly.

In this global effort, the industrialized democratic regions remain an identifiable community and a vital core. Their focus, however, must not be on the preservation of the status quo, but on arrangements which increasingly embrace the Third and Fourth Worlds in a cooperative endeavor to secure a more equitable world order.

The renovation of the international system will be a very prolonged process. The system created after World War II was created through an act of will and human initiative in a relatively restricted period of time. One power had overwhelming might and influence, and others were closely associated with it. In contrast, a renovated international system will now require a process of creation — much longer and more complex — a process in which prolonged negotiations will have to be engaged and developed. In nurturing habits and practices of working together among the trilateral regions, the Commission should help set the context for these necessary efforts.
1. Towards a Renovated World Monetary System (1973)
   Authors: Richard N. Cooper, Motoo Kaji, Claudio Segré

   Authors: François Duchêne, Kinhide Mushakoji, Henry Owen

3. A Turning Point in North-South Economic Relations (1974)
   Authors: Richard N. Gardner, Saburo Okita, B.J. Udink

   Authors: Guido Colonna di Paliano, Philip H. Trezise, Nobuhiko Ushiba

   Authors: John C. Campbell, Guy de Carmoy, Shinichi Kondo

   Authors: John C. Campbell, Guy de Carmoy, Shinichi Kondo

   Authors: Richard N. Gardner, Saburo Okita, B.J. Udink

8. The Crisis of Democracy (1975)
   Authors: Michel Crozier, Samuel P. Huntington, Joji Watanuki

   Authors: Michael Hardy, Ann L. Hollick, Johan Jørgen Holst, Douglas M. Johnston, Shigeru Oda

10. Seeking a New Accommodation in World Commodity Markets (1976)
    Authors: Carl E. Beigie, Wolfgang Hager, Sueo Sekiguchi

11. The Reform of International Institutions (1976)
    Authors: C. Fred Bergsten, Georges Berthoin, Kinhide Mushakoji

12. The Problem of International Consultations (1976)
    Authors: Egidio Ortona, J. Robert Schactzel, Nobuhiko Ushiba

13. Collaboration with Communist Countries in Managing Global Problems: An Examination of the Options (1977)
    Authors: Chihiro Hosoya, Henry Owen, Andrew Shonfield

    Authors: Richard N. Cooper, Karl Kaiser, Masataka Kosaka

15. An Overview of East-West Relations (1978)
    Authors: Jeremy R. Azrael, Richard Löwenthal, Tohru Nakagawa

16. Expanding Food Production in Developing Countries: Rice Production in South and Southeast Asia (1978)
    Authors: Umberto Colombo, D. Gale Johnson, Toshio Shishido

    Authors: John C. Sawhill, Keichi Oshima, Hanns W. Maull

18. Collective Bargaining and Employee Participation in Western Europe, North America and Japan (1979)
    Authors: Benjamin C. Roberts, Hideaki Okamoto, George C. Lodge

    Authors: John Pinder, Takashi Hosomi, William Diebold