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Beyond Free Trade

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Robert B. Reich

BEYOND FREE TRADE

The United States is now engaged in a divisive debate over international trade. On one side are disciples of the principle of free trade—the touchstone of American trade policy in the postwar era. Free traders argue that the interests of the United States, and of the world, continue to lie in reducing barriers, subsidies and other government interventions which distort the natural pattern of specialization and trade among countries. On the other side are those calling for policies to protect American industry from foreign competition. Protectionists argue that imports are causing massive unemployment and eroding the nation's industrial base.

The two camps have recently found common ground in the view that the United States must “get tough” with trading partners which protect or subsidize their own industries. By threatening to close American markets or subsidize American traders if other nations fail to abandon their own interventions, free traders and protectionists can both serve their concerns. More than 30 bills were introduced in the 97th Congress urging government action to enforce reciprocity by retaliating against foreign trade barriers and subsidies. Last December the Senate adopted a resolution sought by a Florida-based machine-tool manufacturer; the measure endorsed the manufacturer's request for President Reagan to deny investment tax credits to U.S. companies that purchase Japanese computerized machine tools, on the grounds that Japanese industrial policies give Japan's machine-tool manufacturers an unfair competitive advantage. The Reagan Administration is now warning the Japanese that the United States will commence formal countervailing duty proceedings unless the Japanese cease their practice of favoring certain industries with low-interest loans and special immunities from antitrust constraints.

The Administration also has asked Congress for a \$2.66-billion standby fund to match export financing by foreign governments. Already the Administration is providing generous subsidies on the sale of \$150-million worth of wheat flour to Egypt, in retaliation

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against state-assisted flour exports by France. Even the Council of Economic Advisors—long a bastion of free trade purism—has embraced the strategy of retaliation. In its 1983 report to Congress the Council asserted that “even though costly to the U.S. economy in the short run, [retaliation] may . . . be justified if it serves the *strategic* purpose of increasing the cost of [trade interventions] by foreign governments.”¹

It is an ideal political solution. By framing the issue as the proper American *reaction* to foreign transgressions we need not directly face the painful choice between free trade and protection. We can avoid articulating the national goals underlying our trade policy. Protection can be the sword of the free traders in their assault upon foreign trade practices while it simultaneously serves as a shield for those anxious to preserve American jobs. Everyone seems to win.

But no one wins. Import barriers that merely preserve established businesses impose heavy costs on American consumers who must now pay more for the goods they purchase. Barriers and domestic subsidies reduce producers’ incentives to innovate and to invest in new products and processes by relieving the pressure of foreign competition. They reduce workers’ incentives to seek retraining and to relocate for new jobs. At the same time, interventions aimed at preservation retard the development of other nations’ economies; in particular, they block the less-developed nations from “inheriting” the industries for which they are becoming better suited by virtue of their cheaper labor or favored access to markets and raw materials. Finally, they tempt other nations to retaliate in kind, and risk triggering a trade war of import barriers and export subsidies spiraling devastatingly higher, as they did in the 1930s. There is nothing new about any of these arguments. They have been used for years by the free traders themselves. They are no less valid against free traders who now endorse tactical protectionism as a bargaining chip against our trading partners.

The problem is that the classic principle of free trade no longer offers any practical or politically compelling alternative to protectionism. The recent collapse of free-trade ideology into retaliatory protectionism attests to the bankruptcy of that ideal in the present international economy. The sources of this breakdown lie deeper than the current worldwide recession and an over-valued dollar, both of which obviously imperil political assent to an open trading system. The free-trade ideal has been eroding—both within the United States and among America’s trading partners—for over a

¹ Economic Report of the President, February 1983, Washington: GPO, 1983, p. 61.

decade. The erosion originates in the profound structural changes that have been reshaping the world's economy.

Since the late 1960s the economies of the United States and every other industrialized nation have been rocked by the emergence of Japan as a powerful exporter of steel, automobiles, and advanced consumer electronics products; by the emergence of South Korea, Taiwan, Hong Kong, the Philippines, Mexico, and Brazil as efficient producers of synthetic textiles, footwear, automobile components, and simpler consumer products, and the rapid movement of some of these nations into steel production and shipbuilding; by improvements in the technology of transportation, communications, and international financial and engineering services, all of which have permitted manufacturing processes to be fragmented and parcelled out across the globe to wherever specific tasks can be performed most efficiently; by the progressive saturation of the American and some West European markets with standard consumer products like automobiles and appliances, and the sudden growth of Asian and Latin American markets for these goods; and by the emergence of certain new technologies (optic fibers, semiconductors, lasers, recombinant DNA) whose commercialization—although critical to the continued competitiveness of a wide range of businesses—entails large investments and greater risks than most firms are accustomed to accepting.

These changes have put governments in industrialized nations under pressure to maintain employment in steel, autos, textiles, consumer electronics, and shipbuilding; to help upgrade plants and equipment in these and other industries; to encourage scrapping of excess capacity; to organize marketing or purchasing cartels; to provide retraining and relocation assistance for workers laid off in distressed industries; to sponsor new industries in hard-hit regions; to underwrite energy costs; to help convert capital equipment to lower-cost energy sources; to sponsor research and development; to nurture new technologies and underwrite the costs and risks of bringing them to market.

Policies inspired by new foreign competition operate either by raising the barriers to entry or by altering the cost structures of selected industries. Entry barriers have been raised through changes in antitrust laws, rules governing patents, trademarks and licensing, health and safety regulations, and government procurement restrictions, and by orderly marketing agreements and voluntary export restraints, as well as by straightforward tariffs and quotas. Costs have been reduced through government-subsidized loans, loan guarantees, tax credits, accelerated depreciation allowances, em-

ployment and training subsidies, research grants, and favorable credit or tax treatment for purchasers. Most of these interventions have been targeted selectively—on specific industries rather than across the board—because the sharp disruptions of the last 15 years have imposed disparate burdens and created different opportunities across industries.

Reviewing the widely varying forms and effects of intervention reveals that current American trade policy harbors an inherent contradiction: *Our* government must not intervene, since intervention by assumption distorts production and saps our competitive strength. At the same time, we must not permit *other* governments to intervene, since intervention gives our industrialized rivals unfair competitive advantage. Recognizing the contradiction illuminates the reality that free-trade ideology obscures.

Some interventions, rooted in incoherent economic goals or political pressure to spare powerful minorities the pain of adjustment, impose net costs on a country. Some interventions shift adjustment costs onto other countries, benefitting the nation undertaking them but burdening the rest of the world. And some interventions are strictly positive-sum, accelerating economic progress and adding to the world's wealth. To dismiss all these interventions as lamentable "distortions" is neither economically illuminating nor politically compelling. Refusing to discriminate among the different types of interventions prevents us from rejecting the first, resisting the second, and encouraging the third.

Many interventions respond to important side effects of market decisions—the large social costs and social benefits that surge through national economies under stress. To fail to intervene—even if inaction were politically possible—would be to allow severe dislocations to occur by default. We may take issue with specific interventions, specifically those which do not accommodate changes in the global economy, but merely prop up the status quo. But to object to all interventions on the ground that barriers and subsidies are at odds with the ideal of free trade sets principle above ultimate purpose. Free trade is not an end in itself, but a means to a higher living standard for the world's people. Government interventions that make economic transitions smoother, more equitable, and more efficient can serve precisely this purpose.

What is the proper end of U.S. trade policy? The issue no longer can be weighed on the familiar scales of free trade versus protection. Our failure to craft a national strategy for responding to the structural changes occurring in the world's economy confines us to a confused and contradictory trade policy. Our trading partners do

not know what we want because we have failed to articulate it, or even to acknowledge the choices we face. By default, we are adopting a trade policy that preserves our old industrial base, and freezes structural change and progress in the United States and around the globe.

II

The postwar American ideal of free trade assumed a steady expansion of capital-intensive, standardized production within all industrialized nations. Comparative advantage among them was perceived to depend upon differences in the relative abundance of capital and labor, which in turn depended on national differences both in citizens' willingness to defer consumption and accumulate capital, and in the historic inheritance of capital stock. Comparative advantage was assumed to change over time; even the "backward" nations would eventually progress sufficiently to support capital-intensive industries. But development would be evolutionary, and shifts would be slow, regular, and predictable. It stood to reason that the best policy for ensuring both steady expansion and steady change would be a gradual reduction in trade barriers. That way, each nation could exploit large economies of scale in the type of production in which it currently enjoyed a comparative advantage, while incremental changes in investment and capital accumulation slowly altered the terms of trade.

Neoclassical trade theory was built upon a much older intellectual foundation. Adam Smith and David Ricardo had based their potent arguments for free trade principally on geographic differences in natural endowments, implying a quite static distribution of advantages. A nation had no choice but to realistically accept the economic station its land and climate had assigned it. As machine-based industry developed and spread, later theorists refined the model to accommodate the importance of physical capital. This "factor-proportions" model turned on the observation that some peoples were better than others at making and using machines, for reasons that had little to do with natural resources. Comparative advantage became less a matter of given endowments, more a matter of chosen investments.

Yet because it grew out of an era when technologies changed gradually, and when colonialism and devastating world wars stifled or distorted international economic adjustment, neoclassical trade theory never fully acknowledged the profound difference between comparative advantage as a fact of natural endowments and comparative advantage as an ever-changing product of social organiza-

tion and choice. Until very recently, observing that the United States was rich in capital while Korea was rich in unskilled labor seemed as comfortably solid a comparison as observing that Portugal was sunny and suited for grapes while Ireland was verdant and suited for sheep. This was the theoretical basis of the free-trade principle that informs American trade policy today.

Just as the Ricardian model had viewed world trade largely in terms of the textile industry which Britain then dominated, so was the U.S. postwar trade policy shaped by attention to America's dominant industries: steel, chemicals, automobiles, rubber, and electrical machinery. Stability and predictability, to ensure that fixed costs could be recovered, were the only principles of public policy necessary to encourage investment. Potential efficiencies in world-scale production promised to preserve American dominance in these industries.

The postwar free-trade ideal was appropriate to its time, an era of unprecedented mass consumption of standardized goods. A new, relatively homogeneous generation of consumers was exercising pent-up demands for homes, cars, and all sorts of steel and plastic gadgets. Throughout the 1950s and 1960s the American economy grew less by innovating than by expanding the scale of its basic production processes and thus reducing unit costs. Western Europe followed that lead. There were relatively few breakthroughs in new products or processes, and very little real competition. But demand seemed insatiable and prosperity reigned. Free trade both enabled the rest of the world to share in this expansion and permitted the United States to preserve its preeminence.

The ideal was codified in the General Agreement on Tariffs and Trade (GATT), signed in 1947, and articulated in more detail in the subsequent Dillon (1960–1961) and Kennedy (1963–1967) rounds of tariff negotiations. It was expressed in the principles of non-discrimination, reduced government intervention and the formal negotiation of trade disputes. The GATT structure succeeded reasonably well because all parties (except the less-developed nations) had a stake in making the system work so they could share in American-led prosperity; and because the United States possessed sufficient economic and political power to enforce its vision. The volume of world trade increased dramatically, exceeding annual growth in world production. Between 1913 and 1948, world trade had risen two and a half percent per year on average; world production, only two percent; between 1948 and 1973, trade increased by seven percent per year, and world production by five percent.

The principal departures from the ideal were agricultural commodities and textiles, the two areas where potential foreign competition threatened American producers from the start. U.S. representatives to GATT insisted on an exception for primary commodities. The United States already had restricted imports of dairy products, wheat, and peanuts. Sugar quotas went into effect in 1948. Later came "voluntary" agreements with Taiwan on mushrooms, with Australia and New Zealand on beef, and with Mexico on strawberries and tomatoes. Farm subsidies were similarly exempt: in 1955, when the contracting parties to GATT adopted provisions limiting the use of export subsidies, they effectively excluded primary commodities from coverage. By 1982, the United States was spending over \$18 billion a year on purchasing and storing wheat, dairy products, and corn, and on providing low-interest loans to farmers; the government spent over \$2 billion merely to raise milk prices (a sum that just about equalled the year's net new lending by the Export-Import Bank to promote overseas sales by American manufacturers).

Policies to preserve the textile industry followed a related logic of escalating preservationism. In 1957 Japan agreed to limit its textile exports to the United States. This was followed five years later by a multilateral agreement (the Long Term Arrangement) designed to protect North America and Europe against cotton textiles from Japan and other developing nations; it was extended in 1967 and again in 1970. In 1971 the United States initiated agreements with Hong Kong, Taiwan, and Japan, restricting their exports of wool and man-made fibers. Then in 1974 came the first Multi-Fiber Agreement, which restricted synthetic textiles as well. The latest Multi-Fiber Agreement allows importing nations to negotiate bilateral quotas with exporters. About 80 percent of U.S. textile imports are now covered by individual country restrictions. The United States recently has imposed new restrictions on textile exports from Hong Kong, South Korea, and Taiwan, limiting them to an annual increase of just 1.5 percent per year. In mid-January 1983, the Reagan Administration reduced quotas on some textiles and clothing from China (not a signatory of the Multi-Fiber Agreement) and froze other Chinese textile and clothing exports at or near existing levels.

These two exceptions to the postwar ideal of free trade contained the seeds of its disintegration. Agriculture and textiles were the only significant sectors where free trade would impose major adjustment costs on American producers. The world market for farm goods was limited. Competitors in Canada and Australia had not

been crippled by war. And American agricultural interests expected that once the worst of the devastation was repaired, West European nations would soon become largely self-sufficient in food, and even exporters. Thus American farmers saw little to gain and much to lose from free trade, and simply rejected the principle. (In fact the potential world market and the American competitive edge have both proved greater than expected, and for decades the United States has tried to recant its own exception and bring agriculture under the banner of free trade.)

In textiles the causes were different but the effect was the same: some American interests foresaw sizable immediate losses from free trade, and U.S. negotiators obtained exemptions from the rules. The world market for textiles, unlike the market for food, was expected to grow, but early in the postwar era it was clear that low-wage countries were better suited for much textile manufacturing.

In nearly every other industry, free trade promised nothing but expanding American exports. Accepting the principle was painless, and its limits unexamined. But in both cases where free trade would have called for substantial immediate adjustment on the part of significant economic groups in the United States, the principle was unceremoniously abandoned. There were no public policies to guide adjustments of this magnitude.

The free-trade principle—and the codes and institutions that were growing up around it—made no reference to the problem of structural adjustment. These early departures from the ideal foreshadowed its widespread breakdown today.

Even when the adjustment problems of the United States and Western Europe loomed larger in the 1970s, America continued to view the issues narrowly in terms of the free-trade ideal. During the Tokyo Round of negotiations, the United States continued to seek international agreements to limit government interventions that “distort” international trade. Several of the codes that emerged—governing public procurement practices and non-tariff barriers—were informed by the free-trade ideal. But the subsidies code reflected no consensus on what sorts of subsidies were out of bounds; the code did little more than establish processes to ensure that retaliation was not disproportionate to the offense.

III

During the 1970s trade accords became progressively less coherent or conclusive because the premises on which the postwar free-trade ideal had been founded were no longer applicable to

large segments of industrialized economies. Comparative advantage was no longer an almost static phenomenon based on slowly evolving capital endowments. The hourly output of workers in certain less developed nations like South Korea and Taiwan was quickly catching up to the output of workers in the United States and other industrialized nations because they were starting to use many of the same machines, purchased from international engineering and capital-equipment firms with money borrowed from international banks.

The pace of structural change was dramatic. In the mid-1960s, Taiwan, Hong Kong, Korea, Brazil, and Spain specialized in simple products that required large amounts of unskilled labor but little capital investment or technology—clothing, footwear, toys, basic electronic assemblies. Japan's response was to shift out of these products and into processing industries like steel and synthetic fibers, which called for substantial capital and raw materials, but still used mostly unskilled and semi-skilled labor and incorporated relatively mature technologies not subject to major innovations. Ten years later, the newly industrialized countries had followed Japan into basic capital-intensive processing industries. Japan, meanwhile, had become an exporter of steel technology instead of basic steels, and moved its industrial base into products like automobiles, color televisions, small appliances, consumer electronics, and ships—businesses requiring technological sophistication as well as considerable investment in plant and equipment.

By 1980, Taiwan and the other rapid industrializers had themselves become major producers of complex products like automobiles, color televisions, tape recorders, CB transceivers, microwave ovens, small computers, and ships. Korea already has the world's largest single shipyard; the Pohang steel mill is one of the most modern plants in operation. Almost all the world's production of small appliances is now centered in Hong Kong, Korea, and Singapore. Meanwhile, poorer countries like Malaysia, Thailand, the Philippines, Sri Lanka, and India are inheriting the production of clothing, footwear, toys, and simple electronic assemblies.

Far from halting this migration of high-volume, standardized production, automation actually has accelerated it. Sophisticated machines are readily transported to low-wage countries. Robots and computerized machines are substituting for semi-skilled workers. Automated inspection machines are reducing the costs of screening out poor-quality components, thereby encouraging firms in industrialized nations to farm out production of standardized parts to developing nations.

In the face of this rapid movement into high-volume, standardized production, Japan—and to a lesser extent West Germany and France—have sought to shift their industrial bases to products and processes that require skilled workers—precision castings, specialty steel, special chemicals, and sensor devices, as well as the design and manufacture of fiber-optic cable, fine ceramics, lasers, large-scale integrated circuits, and advanced aircraft engines. Skilled labor has become the only dimension of production where advanced industrialized nations can create and retain an advantage. Technological innovations can be bought or imitated by anyone. Production facilities can be established anywhere. Financial capital now flows around the globe at the speed of an electronic impulse. But production processes that depend on skilled labor must stay where the skilled labor is.

Some skill-intensive products or processes require precision engineering, complex testing, and sophisticated maintenance. Others are tailored to the special needs of customers. The remainder involve technologies that are changing rapidly. All three categories are relatively secure against low-wage competition. All depend largely on experience and know-how—often developed within teams of employees who blend traditionally separate business functions of design, engineering, purchasing, manufacturing, distribution, marketing, and sales. Just as the main source of comparative advantage changed over a century ago from static natural endowments to slowly accumulated capital stocks, so now the new importance of skill-intensive production makes comparative advantage a matter of developing and deploying human capital. This second change is more dramatic than the first. In a very real and immediate way, a nation *chooses* its comparative advantage. The flexibility of its institutions and the adaptability of its work force govern the scope of choice. Decisions on human-capital development define a nation's competitive strategy.

Most discussions of Japan's competitive success focus, either admiringly or accusingly, on its tactics, while neglecting the fact that these tactics are effective largely because they are rooted in a coherent strategy for progressively adopting higher-skilled, higher-valued economic activities.

As Japan has reduced its commitment to basic steel, basic petrochemicals, small appliances, ships, and simple fibers, it has dramatically expanded its capacity in the higher-valued, more specialized segments of these industries. Japan's production of high quality polyester-filament fabrics, requiring complex technologies and skilled labor, now accounts for 40 percent of its textile exports.

Japan's steel production has shifted to custom-cast steels with new additives and different levels of purification: high tensile-strength steel, light enough to be used in fuel-efficient cars; steel mixed with silicon, designed to improve the efficiency of power transmissions and electric motors; corrosion-resistant steel. While it upgrades its steel production processes, Japan is moving rapidly into wholly new industries. Already Japan has more than half of the world market in 64K memory chips. It has led in the introduction of the next generation—256K chips. It is on the verge of outpacing the United States in super computers. It is gaining significant shares of the world market in industrial ceramics and composite materials. It is substantially ahead in photovoltaics and the application of robotics.

West Germany and France are having more difficulty adapting their economies, but each country is making progress. Although the recent recession has slowed industrial adjustment in both nations, West Germany continues to shift into specialty steel, precision machinery, specialty chemicals, and biotechnologies; France, into aircraft, nuclear-powered generators, satellite technology, and electronic switching equipment.

These nations' governments are working with their businesses and labor unions to accomplish the shift. They are ensuring that managers obtain long-term capital and that workers obtain retraining. They are selectively raising entry barriers and reducing costs in an effort to alter the pattern of national investment, and thereby to accelerate structural change in their economies. They have undeniably made mistakes. On occasion they also bow to the demands of older industries to maintain the status quo. Often, they find it difficult to achieve consensus about the best strategy for adjustment. They are having problems coping with the current recession while trying to maintain flexibility. But these nations understand the inevitability and urgency of structural change, and the central importance of easing and accelerating the transition.

As the free-trade ideal has become hopelessly inadequate to guide these shifts, international economic agencies and formal trade processes sponsored by the United States have been gradually bypassed and enfeebled. Only the easiest of disputes are settled within the GATT system; most major issues of global economic change are dealt with outside it. Bilateral, voluntary export agreements are the rule. Japan now voluntarily limits its exports to Western Europe of automobiles, machine tools, television tubes, and video tape recorders; and its exports to the United States of automobiles, semiconductors, and many other items. The European Community limits its sales of steel to the United States.

Quotas, tariffs, and other barriers are being imposed on a wide range of products. The European Community maintains a tariff of 17 percent on integrated circuits. Australia, South Africa, Spain, Mexico, and 26 other nations require fixed percentages of domestic content in automobiles assembled within their borders. France is restricting imports of video tape recorders by subjecting them to detailed inspections and deliberate delays.

Some government subsidies are being devoted to older industries. Over the last five years the European Community has invested more than \$30 billion in steel. Other subsidies are being directed at emerging businesses. In 1982, Japan unveiled two programs that together devote \$750 million to pursuing world leadership in developing and producing the next generation of computers. Japan's \$200-million project to develop very-large-scale integrated circuits already has enabled that nation to take the lead in that field. France is spending \$20 billion on electronics over the next five years; Germany and France together are investing heavily in satellite technology.

The GATT, which condones or condemns trade practices exclusively by reference to market standards, has little to say about the growing fraction of trade conducted largely outside market channels, such as transfers of raw materials and intermediate goods within multinational firms and issues concerning wholly or partly public enterprises. Several governments are increasing their ownership interests in industry. West European governments already have equity holdings in petrochemicals, steel, railways, coal, gas, oil, shipbuilding, telecommunications, airlines, aerospace, and automobiles. Of Western Europe's 50 largest industrial companies, governments have an ownership stake in 19. In France alone, public corporations now account for almost 30 percent of French sales, 22 percent of the nation's workforce, and almost 52 percent of all industrial investment. These state-owned companies typically subsidize other companies by selling certain goods and services at prices below cost. France has long subsidized the sale of state-supplied coal. State-owned or state-managed banks in many West European nations and in Japan provide special supports to exporting companies. State-owned companies also typically purchase what they need from domestic suppliers. Most national railways, telecommunications, and power-generating entities are excluded from the GATT procurement code.

The free-trade ideal has also been crumbling within the United States. In many respects its erosion here has been more dramatic than elsewhere, and has set a precedent for other nations. Since the

late 1960s, the pattern has become well established: American industries suddenly faced with foreign competition have threatened to file complaints with the government alleging foreign "dumping" in the United States of goods priced lower than production costs, or foreign subsidies which render the imports unfairly cheap. Anxious to avoid protracted litigation and the trade and diplomatic frictions accompanying it, the United States often has responded by negotiating a voluntary agreement with the exporting nation, setting a limit to the volume of exports shipped to the United States. As structural changes continue and the exporter adapts by becoming more efficient, the drama repeats itself, with the resulting restrictions becoming even tighter than before.

In 1969, U.S. steel producers pressured the government to obtain voluntary limits on the tonnage of steel that could be exported to the United States from Western Europe and Japan. When these failed to stem the tide, the industry filed anti-dumping petitions. In 1978, the Carter Administration agreed to impose a "trigger-price" mechanism, which effectively barred imported steel from entering the country at any price below the computed cost of production by Japan's most efficient producer plus transport charges, overhead, and a stipulated profit margin. After the steel industry filed new anti-dumping petitions in 1980, the trigger price was increased by 12 percent. After the steel industry again filed countervailing duty cases in 1982, alleging that steel exporting nations were unfairly subsidizing their industries, the Reagan Administration negotiated a formal quota on steel exports from Western Europe, limiting sales to 5.44 percent of the U.S. market. Other steel exporting nations now are seeking similar quota shares of the U.S. market.

In 1977, the U.S. government negotiated a marketing agreement with Japan, limiting Japanese exports of assembled color televisions to just under 1.6 million units annually. Similar agreements subsequently were negotiated with Taiwan and South Korea. In 1978, the government substantially increased tariffs on CB radio transceivers. In 1981, the Reagan Administration forced Japan to limit its automobile exports to the United States to 1.68 million vehicles; this has predictably encouraged other importing nations to demand similar assurances from the Japanese. At about the same time the Administration allowed duties to be reimposed on \$3.8-billion worth of imports from Hong Kong, South Korea, Taiwan, Brazil, and Mexico, substantially increasing the protection accorded American manufacturers of car parts, electrical goods, fertilizers, and chemicals. Meanwhile, officials pressured Japanese electronic equipment manufacturers to limit their exports to the United States and

to provide assurances about minimum prices. Congress has also been busy devising new barriers: there is now a 25-percent tariff on trucks manufactured abroad, and 80 percent of the parts of federally funded mass-transit vehicles must be fabricated in the United States.

All told, by 1982 the U.S. product sectors protected overtly by non-tariff barriers—when weighted by each sector's share of total consumption in manufacturing—covered 34 percent of the market for American manufacturers. In Japan the comparable figure was 7 percent; in Canada, 10 percent; in West Germany, 20 percent; in France, 32 percent.²

American industries threatened by foreign competition also have been propped up by a wide assortment of government subsidies, special tax provisions, and subsidized loans and loan guarantees. These forms of assistance have mushroomed since the late 1960s, as global competitive pressures have increased. In 1981, for example, the overall rate of U.S. tax subsidies to business as a percent of manufacturing fixed investment (the difference between the actual tax reduction resulting from the purchase of plant or machinery and what that tax reduction would have been under a neutral formula based on estimates of the asset's useful life) was 12.8 percent. In France, the rate was 4.4 percent; in Japan and West Germany the rate was actually negative.³ By 1982, tax expenditures benefiting American business—in the form of targeted tax credits, special depreciation allowances, and accelerated depreciation—totalled \$222 billion. That same year U.S. government-subsidized loans to business totalled over \$7 billion in direct outlays; an additional \$8.7 billion was allocated in the form of new commitments for loan guarantees. None of the tax expenditures, and only a portion of the loans, appeared as direct outlays in the federal budget.

Finally, the United States continues to grant substantial subsidies and impose severe trade barriers under the pretext of national security. Approximately 55 percent of all research and development in the United States is funded by the government (a much higher percentage than in any other industrialized nation), and the bulk of this support is linked to national defense: government outlays for defense research and development have increased by about \$9 billion since 1981, while non-defense research and development

² Estimate from William Cline, "Exports of Manufactures from Developing Countries: Performance and Prospects for Market Access," Washington: Brookings Institution, 1982. This estimate does not reflect the severity of the protection accorded the products in question.

³ See Bulletin for International Fiscal Documentation, Organization for Economic Cooperation and Development, July 1981.

has increased by only \$600 million. Some of these expenditures, more or less by chance, yield spin-offs of new commercial products. Most are narrowly designed for military hardware.

Some connections to national defense are even more attenuated. Merchant shipping is assumed to be a "strategic" industry; as a result, foreign merchant ships are barred from U.S. coastal trade, while the American government spends approximately \$500 million per year subsidizing the shipbuilding industry. The United States is now quietly negotiating bilateral cargo-shipping deals with the Philippines, Indonesia, and South Korea—in effect cartelizing several Pacific shipping lines. Crude oil from Alaska's North Slope may not be shipped to Japan, for fear that such trade will compromise America's hoped-for energy independence. Recently, the U.S. government pressured American Telephone and Telegraph (AT&T) to award a large fiber-optics contract to a U.S. company rather than to Fujitsu, the lowest bidder, out of fear that the United States might otherwise grow too dependent on Japan for this strategically important product. (Protection of the U.S. watch industry was once defended on the ground that only watchmakers had the skills necessary for designing bomb sights, and recent demands for barriers against Chinese textiles warn of the danger of inadequate domestic capacity for making military uniforms.)

Demands for relief of U.S. industries in competitive trouble are growing louder. This is understandable. In 1980—before the current recession got underway—58 percent of the U.S. labor force was employed in an industry which had experienced an overall decline in employment since 1973. In addition, four of the industries with slow employment growth (tobacco, automobiles, primary metals, textiles) were among the five industries with the largest average plant size.⁴ Adjustments are particularly difficult for these groups. Private risk capital is generally unavailable for restructuring these industries toward higher value-added and more competitive production. Workers have no ready alternative employment in the geographic area; and they are reluctant to leave for fear of losing seniority rights and pension credits at work, selling their homes at depressed prices and buying new homes in regions where homes cost much more, and sacrificing whatever employment security their spouse might have in a local job.

The free-trade ideal is not necessarily incompatible with these mounting worldwide demands for import barriers and subsidies.

⁴ See R. Lawrence, "Deindustrialization and U.S. Competitiveness: Domestic and International Forces in U.S. Industrial Performance 1970–1980," Washington: Brookings Institution, October 19, 1982.

The United States could continue to view all these measures—both abroad and at home—as exceptions and stop-gaps, and seek to contain them. Or we could continue to ignore their variety, ubiquity, and magnitude, and concentrate instead on the shrinking arena in which the ideal of free trade still applies. Or we could redefine “free trade” in such a way that many of these measures fall within a margin of permissible departures from the ideal. Or we could simply match other nations’ barriers and subsidies (and expect them to match our own) in an attempt to create a “level playing field” for free trade.

The United States could embark upon any one of these strategies, or all of them. But any such attempt would be futile, because the traditional choice between free trade and protection has become almost irrelevant to the dynamic of structural change in the world economy. Free trade is almost a sideshow. The central issues of international trade policy now concern the relative speed at which national economies are evolving to higher value-added production.

IV

The practical policy choices facing the United States and every other industrialized nation are whether (and to what extent) to preserve existing jobs and industries, and whether (and how) to help move capital and labor to higher value-added and more competitive production. Both choices imply an active role for government. But the first is politically and administratively easier to accomplish than the second, at least in the short run. Most people are afraid of change, particularly when they suspect that its burdens and benefits will fall randomly and disproportionately. By the same token, many policies to preserve the status quo—like barriers against foreign competition and special tax benefits propping up deteriorating balance sheets—do not entail active and visible government intervention. No bureaucrats intrude on corporate discretion. Congress votes no budgets. The costs do not appear on any national accounts, and those who bear them are seldom aware of the source or extent of the burdens.

On the other hand, policies designed to ease and accelerate an economy’s transition to higher value-added and more competitive production often require that governments work closely with business and labor to ensure that the sharp changes required do not impose disproportionate costs on some or windfalls for others; that workers have adequate income security and opportunities for retraining; that emerging industries have sufficient capital to cope with the high costs and risks of starting up when these costs and

risks are beyond what private investors are willing to endure; and that industries in difficulty have sufficient resources to reduce capacity in their least competitive parts and restructure their most competitive. All of these activities entail an active and explicit government role.

The most attractive option is obvious. Preservationism, here or abroad, imperils our future prosperity and that of the rest of the world. The international economy can be compared to a mill wheel driving the process of structural change in each national economy, pushing each into higher-valued production, and generating, ultimately, an ever-richer world. The current that propels the wheel is the flow of goods and services from country to country. Any attempt to dam up the current—say, to maintain jobs in the U.S. steel industry by blocking exports of Brazilian steel—reduces the current's force and slows down the wheel. Brazil has smaller earnings with which to repay its international loans and its growth is stalled. It thus imports fewer U.S. products, and America's growth is slowed. Once the mill wheel begins to decelerate, it is difficult to restore the momentum short of unblocking all the dams and letting the current surge. But the sort of convulsive economic adjustments required to get the world economy moving again under these circumstances are far more difficult to arrange. In the present period of slow growth and high unemployment, a progressively larger proportion of firms and workers become hostage to protectionist policies.

The alternative to preservationism—rapid movement to higher value-added production—is not without its own strains and disruptions. For 15 years American and West European industry has been buffeted by Japan's speedy shift into steel, automobiles, and consumer electronics; the movement of South Korea, Taiwan, and Brazil into these same product areas is now causing further strains. Meanwhile, Japan's forays into advanced microelectronics and composite materials seriously threaten America's future industrial base—as does West Germany's shift into biotechnologies and France's rapid development of telecommunications technology. In addition, competition among nations for leadership in the same emerging businesses creates what might appear to be its own zero-sum game.

But these sorts of tensions and disruptions are the necessary price of a dynamic world economy. Transformations to higher value-added production enlarge the world's wealth. They speed the current under the mill wheel. They generate cheaper and higher-quality products for consumers worldwide. Japan's automobile suc-

cesses have hurt the American automobile industry, but the fact is that Americans now have access to better automobiles at lower costs; so, too, with steel from Brazil and new drugs from West Germany.

The apparent zero-sum standoff in international competition for leadership in the same emerging businesses is illusory. Competition to develop new products and serve new markets fuels innovation and change. Emerging products and processes can take an infinite variety of forms, incorporating different features and serving different product “niches.” Moreover, the race to improve on products and processes already in the market—leapfrogging over competitors’ current offerings—makes the current flow even faster. Such shifts are a positive-sum game.

The American interest lies in promoting the rapid transformation of all nations’ industrial bases toward higher-value production, while discouraging zero-sum efforts to preserve the status quo. But this strategy requires that the United States abandon its condemnation of all government interventions as illegitimate departures from the free trade ideal.

U.S. trade policies have had just the opposite effect, discouraging positive adjustments at home and abroad. Part of the problem is that America’s failure to discriminate between desirable government interventions and undesirable ones—treating them all as somehow illegitimate and thereby forcing them outside the channels of international scrutiny and negotiation—has ceded much of the initiative to political coalitions bent on preserving the status quo. Informal voluntary export agreements of the sort now covering substantial portions of the world market for steel, automobiles, textiles, and consumer electronics are almost certain to be undertaken as last-ditch efforts to save jobs.

America’s formal trade policies also have signaled to our trading partners that we deny the legitimacy of active adjustment. For example, when the U.S. Commerce Department determined last June that Britain was unfairly subsidizing British Steel—but failed to consider that the subsidies were being used by British Steel to reduce capacity and retrain redundant workers—the United States appeared to reject this adjustment strategy outright. Yet capacity reductions and retraining programs organized by affected industries with government help are among the most effective ways of easing the shift of capital and labor out of declining sectors. Indeed, the U.S. steel industry stands to gain substantially from such reductions in world steel-making capacity. This is not to suggest that all subsidies to distressed industries are positive. Subsidies distort the

world economy, and injure the United States, when they serve simply to maintain existing production facilities and jobs at the expense of other nations.

Similarly, when the U.S. Commerce Department preliminarily determined earlier this year that Matsushita was “dumping” radio pagers in the United States at a price that did not permit Matsushita to recover its costs—but failed to consider that Matsushita actually was pricing in anticipation of significant gains in experience and scale efficiencies as it expanded—the United States appeared to deny legitimacy to the aggressive marketing necessary to rapidly commercialize new technologies. Anticipatory pricing to gain high market share in an emerging industry is one of the most effective investments that growing businesses can make—with or without the aid of their governments. Consumers of radio pagers the world over stand to gain from the rapid emergence of such a low-cost product. But we should not turn a blind eye to all instances of foreign pricing below production costs. Such pricing policies in declining businesses merely serve to retard structural change, and may export unemployment during down-turns in a business cycle.

Or consider our formal stand on high technology trade. When the United States argued at last November’s GATT Ministerial Meeting that developing nations should remove all import barriers against products incorporating advanced technologies, and industrialized nations should stop subsidizing the commercialization of these technologies, the United States merely seemed bent on maintaining its own lead. Yet the right kinds of government interventions can validly help these nations gain the know-how and production scale that will let them become highly efficient producers in some of these new areas. Other import barriers and domestic subsidies can also of course simply shield obsolete domestic technologies from superior foreign ones and retard global economic progress.

Perhaps the saddest irony is that our formal machinery for responding to the allegedly unfair practices of our trading partners has tended perversely to block industrial change at home. In recent years, America’s primary interventions in trade policy have arisen from anti-dumping and countervailing duty cases, the results of which can only shield domestic producers from foreign rivals. As international competition has intensified, many U.S. firms have used these mechanisms to shield their domestic market and avoid the pressure to adapt.

The United States has had a countervailing duty law since 1897. Yet duties were only imposed 41 times in the law’s first six decades.

None were imposed between 1959 and 1967. But as foreign competition heated up between 1967 and 1974, the government imposed duties 17 times. In 1976, the United States entered 15 countervailing duty orders; in 1978, 12. In recent years duties have been used less to offset subsidies on exports from our industrialized trading partners, and more to block incursions by developing countries using aggressive pricing to break into new markets. Of the 38 cases since 1979 where the government found that foreign export promotion measures warranted duties, 22 concerned imports from seven newly industrialized nations.⁵

Prior to 1973, the United States had never countervailed against a domestic subsidy (as opposed to direct export subsidies); since then it has done so more and more often. Once the Commerce Department finds dumping or subsidization, and the International Trade Commission determines that U.S. companies have been injured (even if the foreign practice was not the major cause of the injury), customs officials have no choice but to levy duties on the imports. Even a preliminary finding of “reasonable indication” of unfair practice and domestic injury triggers a requirement that the importer post bond for the estimated duty. Together, these provisions give domestic industries enormous leverage in their battles to ward off foreign competitors.

The current spate of bills in Congress calling for “reciprocity” against foreign trade barriers and subsidies—and the Reagan Administration’s new “get tough” policies threatening retaliation against these practices—suffer from the same perversity. Even if a foreign trade barrier or subsidy is patently a zero-sum attempt to preserve the status quo, it makes no sense for the United States to express its opposition in a way that retards industrial adjustment in this country as well.

In short, the United States has no coherent trade strategy. It has no principles for determining which practices of foreign nations and firms should be opposed, and which practices should be encouraged or even emulated. Posing the issue as free trade versus protection is no longer valid in a world economy undergoing rapid structural change where all governments are active participants, either orchestrating or retarding adjustment. That outmoded choice offers no guidance to political leaders in all industrialized nations who must respond to the needs of thousands of workers displaced by imports. Because the United States has no realistic

⁵ Mexico, Uruguay, Argentina, Spain, Brazil, Republic of Korea and Taiwan. Trade Action Monitoring System, Office of the U.S. Trade Representative.

policy, and because the old choice offers no practical alternative, the real choice—between preservation and adjustment—is being made implicitly by the United States in favor of preservation.

v

What sorts of principles might guide a new trade policy to encourage positive adjustment at home and among our trading partners? I can only suggest a rudimentary framework—no more than a set of guidelines for further debate and discussion. The details would need careful examination and elaboration by policy-makers and negotiators.

First, however, two notes of caution: the United States still accounts for over one-fifth of global production and nearly one-fourth of the total national product of all non-communist nations; in dollar value, our exports of goods comprise almost 50 percent of the world's total. The dollar remains a medium of exchange for 80 percent of non-communist trade, and constitutes 75 percent of central bank reserves. Thus the size and influence of the American economy places limits on what actions the United States can take toward our trading partners without shifting the dynamics of the world economy. We cannot merely imitate the successful strategies of another nation, like Japan, which has learned to play well a particular kind of game; our actions inevitably alter the rules of the game itself.

The second point to bear in mind is that “industries” are, strictly speaking, just convenient fictions. They are in fact shifting groups of competitors, clustered around particular products and processes. Rarely are two firms engaged in precisely the same effort. The clustering is thicker for some products and processes than for others, and the pattern is always changing. At any given time some clusters will be doing quite well; others, poorly. Thus it is misleading to speak about the decline of “steel” or “textiles” as a whole, or the emergence of “semiconductors.” Some businesses associated with steel—certain specialty steels or steel minimills, for example—remain highly competitive within advanced nations; some textile businesses will continue to perform successfully. On the other hand, some activities entailed in making semiconductors (like stuffing circuit boards), and the manufacture of some lines of standardized semiconductors (like 16K RAMS) probably can be undertaken more efficiently in a developing nation. Thus in seeking to accelerate adjustment we should not aim to abandon broad categories of activities like steel, nor to embrace broad categories like semicon-

ductors. Instead, we should aim to shift all of these clusters of businesses to higher value-added segments and more competitive outputs.

A new trade policy that assumes and accommodates structural change in the world economy would distinguish among three distinct categories of trade friction, each linked to a different type of business: (1) low-skilled, standardized businesses; (2) cyclical businesses; and (3) high-skilled, emerging businesses. A strategic trade policy would be designed to facilitate adjustment within each category.

Low-skilled, standardized businesses can be found in basic steel, cotton and simple synthetic textiles, metal-working, most shipbuilding, and basic chemicals. These businesses are characterized by long runs (or large batches) of fairly simple commodities, technologies that are evolving slowly, a relatively low level of skills demanded in the production process, and often intensive use of energy. Notwithstanding that capital costs may be high in some of these businesses, it is relatively easy for newly industrialized nations like South Korea, Taiwan, Hong Kong, Singapore, Brazil, and Mexico to pursue them and become strong competitors. Their labor costs are low, they often have access to cheap raw materials, and their markets for such standardized products often are growing rapidly.

The task for the United States and other advanced industrial nations is to ease the adjustment of their firms and workers out of these businesses as quickly as possible. The least competitive firms should be induced to close, thereby giving the more competitive time in which to consolidate operations and shift to higher value-added production. Underutilized plant and equipment should be scrapped or put to other uses. Workers should be retrained. New businesses should be encouraged to move into affected communities. All this typically requires an infusion of external resources, since distressed businesses and their communities are unlikely to possess the wherewithal to do it themselves.

Thus government subsidies linked directly to these adjustments should be encouraged, both within the United States and in other advanced industrial nations. A similar case can be made for some protection from lower-cost imports for a limited time during the transition, *if* it is specifically linked to a plan for capacity reductions and retraining. Domestic consumers will pay higher prices for these goods in the interim, but the higher prices may be viewed as a justifiable tax to help finance the transition. In fact, one import relief law (the so-called "escape clause") explicitly provides for protection in order to facilitate "orderly adjustment," although this

proviso is generally ignored in practice. An escape clause with enforceable adjustment requirements might serve as a vehicle for useful negotiations between industry and government on the pace and direction of adjustment.

For example, Japan's recent efforts at redeploying people and capital out of low-skilled, standardized businesses have been relatively successful. Since 1978 the government has helped businesses organize adjustment cartels to scrap excess capacity and find alternative employment for their workers. Between 1979 and 1981, public and private agreements concerning 14 businesses led to an average capacity cut of 23 percent, accompanied by a rise in capacity utilization from 69 percent to 79 percent and an increase in the ratio of imports to domestic production from 15 percent to 24 percent. Shipbuilders have cut back production by 37 percent; aluminum smelting, by 62 percent; urea production, 42 percent; ammonium, 26 percent; nylon and polyester fiber, 12 percent; wet phosphoric acid, 18 percent. Of course not all such efforts have met with success. Electric-furnace steel manufacturers have used the cartel's protection to increase capacity by 14 percent. And other Japanese steel-makers, faced with competition from cheap South Korean steel, are pressing the government to impose anti-dumping levies. But the officially sanctioned machinery for scrapping and retraining has in general eased adjustment.

Other advanced nations are installing such adjustment mechanisms with varying degrees of success. If the United States is to have any workable alternative to protection, it must create similar instruments for easing the transition. At a minimum, the United States should refrain from countervailing against foreign subsidies, or retaliating against foreign trade barriers, when these practices are directly tied to capacity reductions and retraining programs.

On the other hand, the United States can legitimately object to certain of our trading partners' practices—like subsidizing exports and setting prices below production costs—which merely retard the shift of capital and labor out of these businesses. Such preservationist policies complicate adjustment and concentrate its costs. They can make it harder to design and implement national transition strategies. Even more objectionable, in terms of the ultimate goal of worldwide economic advance, these policies often end up slowing growth within developing nations (which otherwise would shift into these low-skilled, standardized businesses), and thus constrain the expansion of export markets for more complex goods produced in advanced nations.

But it makes no sense for the United States to retaliate against

these zero-sum policies by imposing countervailing duties or anti-dumping levies on imported products that have benefitted from them, or by providing American manufacturers in the same businesses with export subsidies of their own. These steps merely retard economic change in the United States while at the same time imposing even greater hardships on developing nations. Instead—for a whole range of low-skilled, standardized businesses—the United States should seek international agreements with other advanced industrial nations, establishing targets and timetables for capacity reductions, the scrapping or conversion of existing plant and equipment, and retraining of workers. The United States might seize the initiative by proposing an international adjustment fund to help finance these transitions. Payments into the fund would be proportional to a nation's current employment in designated low-skilled, standardized businesses; drawing rights would be proportional to a nation's reductions in capacity and employment.

The European Community already has undertaken a few tentative steps in this direction, but these initiatives have been hampered in part by contrary U.S. policies. In December 1979, for example, member governments agreed to a Commission proposal to extend aid to the European textile industry for capacity reductions and conversion of plant and equipment. But it was particularly difficult for the Community to implement this policy due to the continuous flow into Western Europe of cheap U.S. synthetic fibers whose manufacturers had access to petroleum feedstocks at regulated prices below world market levels. During the past five years the Commission also has recommended targets for capacity reductions in steel, and has provided funds for conversions. But these steps too have been only partially successful. Although the Commission has the power to require that member states' steel subsidies be used for capacity reductions and retraining, certain nations—like Italy—actually have increased capacity during the interim. Moreover, the recent flow of tax benefits and government-subsidized loans from the United States to its own steel industry, coupled with mounting efforts to protect American steel from foreign competition, has emboldened some European steel-makers to demand similar preservationist policies there.

Agreements among advanced industrial nations concerning targets and timetables for phasing out low-skilled, standardized businesses would need to be complemented by trade policies accommodating developing nations' adoption of these same businesses. For example, while no legitimate function is served in advanced nations by granting these businesses export subsidies or in pricing

these products below production costs, trade practices like these can in some cases help developing nations achieve the production scale necessary to become profitable. For developing nations shifting into standardized businesses, export subsidies and below-cost pricing policies are often best viewed as investments to gain economies of scale. At the least, therefore, a trade policy geared to adjustment would not indiscriminately counter developing nations' export promotion measures with countervailing duties or anti-dumping levies.

Cyclical businesses typically entail high fixed costs in plant, equipment, and labor. They also are quite sensitive to even small declines in aggregate demand, since prospective buyers often will delay purchases until markets recover. Taken together, these two features—high fixed costs and business-cycle sensitivity—guarantee trouble for these businesses during recessions. Large numbers of employees are laid off; investments in new equipment are postponed. When the economy picks up again, it is often difficult for firms in these businesses to regain their competitive footing, particularly if firms in other nations have been cushioned during the trough. In the meantime, the social costs of unemployment often are substantial.

In all advanced industrial nations there is an understandable temptation to grant these cyclical businesses special treatment during recessions—to subsidize them, to help them price below production costs, and to block imports—thereby maintaining employment and capacity rather than bearing the social costs of unemployment and the high unit costs of reduced capacity. But this strategy quickly can turn into a zero-sum game. With every advanced nation seeking in effect to export its unemployment and excess capacity problems, no costs are avoided; they are merely shifted to the least nimble international player.

For the United States in particular this is a losing game. Some other nations may be small enough and their trade sufficiently inconspicuous to impose temporary costs on other nations without running the risk of retaliation. For obvious reasons, the United States is not in this enviable position. We cannot keep our cyclical businesses afloat at the expense of the rest of the world because other nations facing similar problems surely will respond in kind.

Our trade position is made doubly difficult because GATT mechanisms can seldom effectively counter such foreign practices. The formal machinery of anti-dumping, countervailing duties, and escape-clause proceedings is generally too cumbersome; informal negotiations leading to voluntary export agreements are too slow.

By the time imports have claimed a noticeable market share, it is often too late for U.S. businesses to recoup. They will have already laid off workers and delayed investments.

Nevertheless, we should view these foreign trade practices in perspective. Periods of worldwide unemployment and underutilized capacity are caused by declining demand, not by predatory trade practices. Zero-sum trade practices can reallocate and concentrate these costs, but they do not create them. The long-term competitiveness of America's cyclical businesses has been jeopardized more by their short-sighted investment and employment practices than by unfair foreign trade measures.

For example, not until 1975 did the Japanese begin to make substantial headway in semiconductors. And they could do so in large part because American chip-makers were standing still. As the U.S. economy was staggering under the impact of the oil-price rise, commercial purchasers of semiconductors in the United States reduced their demand sharply. The government's defense and aerospace budgets were contracting at the same time. As a result, U.S. chip-makers cut their capital equipment purchases by half and laid off thousands of skilled workers. By contrast, the Japanese chip-makers—with their tax privileges, government loans and subsidies still in place—could afford to maintain capacity and improve their technology in anticipation of the next economic upturn. When the market began to rebound, American chip-makers had difficulty attracting back skilled workers and regaining technological momentum. Still smarting from the recession, American executives were reluctant to add new capacity. When the market took off again in 1978, they were caught short. Just to keep its own customers supplied, Intel was forced to buy chips from Hitachi at the rate of 200,000 a month; International Business Machines (IBM) had to purchase 10 million Japanese chips for its small computers. By the end of 1978 the Japanese chip-makers had captured 40 percent of the world market for 16K RAMS. History has been replayed for both semiconductors and machine tools in the current recession.

Thus a "tough" U.S. trade policy for cyclical businesses is less relevant to their competitive strength than industrial and macro-economic policies designed to reduce their vulnerability to recessions. In many of these businesses we have failed to maintain competitiveness because our capital markets do not provide adequate long-term financing, because our workers lack durable ties to their firms, and because we have chosen to control inflation by periodically cooling the U.S. economy to a near freeze. Other advanced industrial nations have adopted quite different policies. For example, our trade conflicts with Japan over cyclical businesses

have been most intense during periods when the yen was undervalued (1970–71, 1976–77, and 1981–82). In the most recent period, that disparity has been directly related to America's tight money and loose fiscal policies, and Japan's loose monetary and tight fiscal policies.

Thus, the U.S. trade strategy for cyclical businesses should be twofold: first, we should continue to discourage foreign export subsidies and below-cost pricing. But more important, we should seek to coordinate our macroeconomic policies with those of our trading partners, so that currency values do not fall too far out of line with underlying trade demand. And we should create counter-cyclical industrial policies which would help maintain employment and capacity in our key cyclical businesses during troughs in the business cycle. These policies might take the form of development banks to provide long-term financing, and government-subsidized retraining vouchers to allow employees to use recessions as occasions to upgrade their skills.

Emerging businesses in advanced industrial nations are characterized by rapid technological change. All depend largely on skilled labor. Examples include the design and fabrication of optical-fiber cable, large-scale integrated circuits, advanced aircraft engines, complex polymer materials, and products derived from recombinant DNA. Many of these businesses are found in the higher-valued, more specialized segments of older industries—for example, automobile transaxles, aramid (high-strength synthetic) fibers, and corrosive-resistant steel. And in many of these businesses, such as office communications and computer-aided manufacturing, the traditional line between goods and services is becoming blurred.

Every industrialized nation is racing to gain scale and experience in these businesses; national strategy, not natural endowment, is the key to competitive advantage. Every nation—including the United States, through the back door of the National Aeronautics and Space Administration (NASA) and the Department of Defense—is subsidizing research, development, and commercialization. Some nations also are erecting import barriers on the theory that these businesses represent “infant industries” which must be temporarily sheltered. Finally, in anticipation of burgeoning markets, some firms are setting prices substantially below current production costs. Which of these practices should the United States oppose? Which should it emulate?

Subsidies to accelerate development should be welcomed. New, higher-valued products and new processes for generating them add to the world's wealth. Even if every nation aims for leadership in the same field, this will not become a zero-sum game, since an

infinite range of variations and improvements can be achieved, and intense competition will spur even greater progress.

For emerging businesses featuring rapid technical change and continuously evolving products, even below-cost pricing should be welcomed as a positive-sum strategy. Such a pricing strategy signals the anticipation of a substantial drop in costs and prices as producers gain greater scale and experience. The producer gambles that there will be sufficient demand to generate a healthy return if and when the firm gains a substantial market position; the gamble is made more risky by the possibility that a competitor will bring out a new product generation in the meantime. Because this form of competition keeps prices low, all consumers benefit. Moreover, given the dynamic nature of the market, below-cost pricing under these circumstances is not predatory—any competitor can leapfrog to a new and better product. Below-cost pricing is just one means of investing in (and betting on) a particular production generation.

The United States has two handicaps in this race. The first is the share of resources devoted to defense-related research and development, which leads only occasionally and by accident to commercially competitive products or processes. This problem is best addressed by boosting support for non-defense research and development, and by creating a new mechanism (perhaps a White House Industrial Development Board) capable of assessing the effects of major defense projects on U.S. commercial competitiveness and identifying alternative plans for achieving defense objectives in ways that offer richer benefits for the rest of the economy.

The second handicap takes the form of antitrust policies which discourage joint research ventures among domestic firms in international competition. This can be remedied by altering the antitrust laws explicitly to permit such joint ventures when the world market share of the relevant U.S. firms is under, say, 25 percent.

But there is no reason why the United States should erect trade barriers against foreign emerging businesses which enjoy targeted subsidies or set prices below production costs. Barriers only reduce domestic competition. They allow American producers to opt out of the international race for the next cheaper or better generation. So long as markets are growing and changing rapidly, the financial health of domestic firms in these businesses depends not on heavy investment in existing production capacity or on a stable pool of customers, but on rapid adaptation and quick exploitation of new opportunities—a set of organizational skills that can be honed best in a highly competitive global market.

Nor does the “infant industry” argument provide a sound rationale for protecting emerging businesses. Such protection rarely will help a domestic firm catch up to a foreign competitor enjoying a head start in scale and experience. Since technologies are changing rapidly, a better strategy is to encourage domestic firms in their efforts to leapfrog to the next product generation and establish a leading position there. Domestic producers intent on making such a leap may benefit from government subsidies (particularly in cases where the prospect of delayed and contingent returns makes venture capital markets balk), but not from protection against imports of the product they aim to surpass.

Import barriers may also jeopardize the international competitive positions of domestic industrial purchasers who would have to pay more for their supplies, or settle for components of poorer quality. U.S. pressure on Japan to reduce exports of 64K RAMS surely places American computer manufacturers at a competitive disadvantage relative to Japanese computer manufacturers who have ready access to better and cheaper chips. Similarly, were the President to disallow investment tax credits for the purchase of numerically controlled machine tools manufactured in Japan, as some machine-tool makers have urged, American producers of automobiles and construction equipment would no longer have access to superior Japanese machine tools at a low cost.

The United States *should* oppose foreign trade barriers which block U.S. exports of high-technology products. But because such tactics are apt to hurt these other nations at least as much as they do U.S. producers, the United States has an opportunity through international negotiations to convince its trading partners that the route to competitive success in emerging businesses lies more in the right kind of subsidies than in import barriers.

A final facet of the American strategy for emerging businesses concerns the investments in the education, training, and group learning which now define advanced nations’ comparative advantage and determine their capacity to adopt new high-value businesses. Financial capital formation is becoming a less important determinant of a nation’s well-being than human capital formation. Financial capital is highly mobile; international savings are flowing around the globe to wherever they can be put to use. Nor is basic invention any longer the key to competitive leadership. Technological innovations can be bought or imitated by anyone: Britain has continued to lead the world in major technological breakthroughs while its economy declines. But a nation’s store of human capital—

the skills and knowledge embedded within the work force—is relatively immobile internationally, and directly determines the speed and efficiency with which new products can be developed and brought to market.

The quality of public education will continue to be critically important. But since many of the most relevant skills can best be learned on the job, it is becoming increasingly important to develop and attract emerging businesses that will invest aggressively in the training and development of their employees.

Some 70 percent of the value added in American manufacturing currently derives from firms that have branches, subsidiaries, or joint ventures outside the United States; a similar percentage of manufacturing income in Japan, West Germany, Sweden, and Britain is earned by multinational enterprises. Thus the internal decisions of these firms help shape the pattern of international employment. But the important issue is not how these multinationals allocate jobs. It is how they allocate their investment in people.

Japanese multinationals, for example, are now actively engaged in worldwide investment programs. But their underlying strategies are geared to increasing the real wages of Japanese workers over the long term. Japanese companies are establishing facilities in America and Western Europe for assembling automobiles, trucks, and appliances. Because these assembly facilities require relatively low-skilled labor, they do not threaten the interests of progressively more skilled Japanese workers. So long as the highest-value portion of the production process remains behind in Japan, foreign-based assembly facilities contribute to the standard of living of Japan's citizens by increasing the demand for the sophisticated components they produce.

Meanwhile, Japanese companies are entering joint ventures with American companies in the emerging fields of biotechnology, "fifth generation" computers, fiber optics, and advanced integrated circuits. By the terms of these agreements, most advanced research and engineering are to be done in Japan. The U.S. firms thereby gain access to the Japanese market, but Japan reaps the more durable benefit of investments in its human capital. Japanese firms also are producing aircraft under licensing agreements with McDonnell Douglas and Lockheed, rather than buying the aircraft outright; this arrangement enables Japanese workers to learn about up-to-date aircraft manufacturing systems and technologies. In the short run these joint ventures and licensing agreements are more expensive than direct purchases would be, but in the long run they will increase the store of skills and knowledge embedded in the

Japanese work force and thereby permit Japan to be more competitive in these industries in the future. The extra cost simply represents sound investments in human capital.

At the same time many Japanese producers are supplying American manufacturers with high value-added products and components. Xerox already is producing many of its small copiers in Japan. Motorola operates an integrated-circuit design center and a test center there. AT&T soon will be selling in the United States cellular mobile-telephone equipment produced in Japan. Of the 16 U.S. firms that built manufacturing facilities in Japan during the first half of 1982, ten were in the business of making advanced semiconductors, and four in biotechnology and fine chemicals. Beginning in 1984, both General Motors and Ford will be importing subcompacts, diesel engines, and transaxles from Japan. All these arrangements also serve to develop Japanese know-how, rather than the long-term skills of the American work force.

Governments in many other nations are beginning to distinguish between direct investments in their nations which merely create new jobs and those which also increase the quality of their labor force. They therefore are bargaining with multinationals for more human capital investment: Italtel, Italy's state-owned telecommunications equipment manufacturer, recently entered into an agreement with General Telephone and Electronics (GTE) to develop an electronic telephone-switching system for the Italian market on condition that the manufacturing facilities be in Italy. GTE gets an inside track on future business in Italy, but Italtel gets the know-how. France has invited Motorola to establish a semiconductor division there and has offered investment incentives on condition that Motorola set up a research and development department in France to help train French engineers. Various governments' conditional offers of market access have led IBM to establish nine research laboratories in Europe and Asia. Ireland is offering incentives for multinationals to establish full-scale manufacturing, research and development, and European-wide administrative facilities in that country.

The United States must understand that government expenditures in the form of subsidies, loan guarantees, and tax benefits designed to keep or lure high value-added emerging businesses within the United States, are no less legitimate investments in the education of America's labor force than are investments in the public schools. Properly conceived, these are not zero-sum efforts to increase employment at home at the expense of employment elsewhere; they are positive-sum policies to enhance the skills and

know-how of American workers while increasing the wealth-creating potential of the world. In the long run they may constitute our most important strategy for emerging businesses.

VI

These guidelines for active trade strategies that distinguish among declining, cyclical, and emerging businesses are no panacea for trade conflicts. Frictions will remain. Indeed, policies based on the principles outlined here would surely inspire heated debates about which businesses fit within each category, and whether trade practices in fact are being used to shift to higher value-added production or merely to preserve the present industrial base.

The point is not so much to reduce or eliminate frictions, but to change the nature of the debate and the focus of attention. Rather than preoccupy ourselves (and our trading partners) with endless and empty disputes over whether a particular practice constitutes an unwarranted subsidy, a particular firm is engaged in dumping, a certain domestic industry has suffered an injury, or certain non-tariff barriers are disruptive to free trade, these new trade strategies would focus the debate squarely on the central question of whether the practices in question serve to accelerate adjustment or maintain the status quo.

The international economy is changing too rapidly to expect that we can discover any immutable principles to guide it automatically on its way. Structural changes are painful, and the vagaries of politics inevitably will play a larger role in setting trade policy in the United States and in every other nation in the years ahead. Thus we need a set of strategic concepts which are consistently applied and which clearly alert our trading partners to what we conceive to be our interest. For the same reason, a formal, court-like apparatus for fact-finding and disposition of trade disputes will prove to be less useful than an ongoing process of political debate and negotiation, in which all sides are permanently engaged.

The choice is clear. The forces of preservation will continue to gain ground without U.S. leadership in the opposite direction. Already steel, autos, textiles, and video tape recorders have succumbed to fixed world quotas on their way to becoming cartel arrangements. The United States should approach our trading partners with a lively awareness that adjustment is inherently difficult, that active government intervention is inevitable and sometimes desirable, and that—through explicit strategies and an ongoing process of negotiation and compromise—we can change zero-sum international conflict into a positive-sum enterprise for world growth.