

International Trade Policies in a World of Industrial Change

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Introduction

U.S. trade policy today is pressed and pulled by many forces. Some are foreign; most are domestic. Some are purely economic, others are social and political. Some forces press naturally on trade policy, many do so almost in desperation, because of resistance to change in policies more congruent to the force.

U.S. industrial change underlies many of these pressures. And trade policy is not always the most sensible or effective instrument for influencing industrial change. But it does have such a role in U.S. history, and in modern economic development. And to the extent that global industrial change is propelled by trade policy abroad, U.S. response to its domestic spillover might naturally include active U.S. trade policy.

In assessing the place of active trade policy in U.S. industrial change, institutions are important. The growing role of imperfectly competitive multinational corporations provides new arguments for more active U.S. trade policy, as does an increased social consensus that governments should insure what markets do not. Arguments against a more active U.S. trade policy, however, stem from its manageability in a democratic system of checks and balances, from its possible perception as a form of policy aggression, and from the likelihood that there are feasible alternatives to trade policy with smaller

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implementation costs, administrative costs, incentive costs, and resource-diversion costs. Considered promising among such alternatives are government adjustment programs, foreign-exchange-market intervention, and macroeconomic renovation.

The first two sections of this paper describe how international economic and policy environments encourage industrial change and pressure U.S. trade policy. Section 3 describes the pros and cons of more active U.S. trade policy where imperfectly competitive industrial structure and missing insurance markets are taken as facts of life. The last section assesses alternatives to more active U.S. trade policy, including, in addition to those mentioned above, strict reliance on market forces.

The changing economic environment

International trade has become an increasingly important source of industrial change in the United States, especially since the early 1970s. Overall trade has grown faster than overall domestic activity. And trade conducted by imperfectly competitive multinational corporations has grown even faster than overall trade. So has trade in agricultural goods and, of course, oil. For the U.S., net exports of capital equipment have mushroomed, and net exports of technology-intensive products have not declined. Trade in financial assets and its concomitant flow of debt service have grown fastest of all. As a result, exchange rates and interest rates have become important short-run influences on U.S. industrial prosperity and structure.

The U.S. industrial incidence of these economic trends is discussed in this section.¹ Industrial change seems to be the most important force shaping prospective U.S. trade policy, as well as being the subject of this conference.

International trade in goods has grown dramatically over the past 15 years for most industrial countries. In the U.S. since 1971, both the export share of gross national product and the import share of gross national expenditure have doubled from 4-6 percent to 9-12 percent, depending on measure. Roughly half of this increased share is due to a rise in the price of tradeables relative to other goods, but

1. Nothing is said here about the U.S. regional and occupational incidence of international economic trends. These issues, while almost as important as industrial incidence in shaping trade policy, require additional research. Bluestone (1983) makes a reasonable start at addressing them.

the other half is due to volume.² In other industrial countries, export and import shares of economic activity have also risen over this period, almost doubling for some, and increasing roughly one and a half times for most (Lipsey [1982b], pp. 2-5, and United States [1982], pp. 3-8, 161). Even as the global economy slumped in the past several years, the share of international trade in overall activity has continued to increase. Only trade in mineral products (mostly petroleum) has slumped along with the global economy; world trade in manufactures continued to grow until 1982, when it declined only 1 percent in volume; and world agricultural trade has grown continuously and rapidly (GATT [1983], pp. 1-2).

Developing countries have contributed disproportionately to growth in global trade. In the past decade, industrial countries, especially the United States and Japan, have increased their trade dependence on developing countries as import suppliers and export customers. This reversed a trend of the previous decade. Developing countries increased their share of imports bought by industrial countries to 31 percent in 1981 from 22 percent in 1973; their share had been 25 percent in 1963. Developing countries increased their share of exports purchased from industrial countries to 28 percent in 1981 from 19 percent in 1973; their share had been 24 percent in 1963 (GATT [1982], Table A3, excluding eastern trading area). A recent study suggests that if developing-country growth rates were to decline 4 percent, industrialized-country (OECD) growth rates would decline 1 percent.³

Multinational corporations have also contributed disproportionately to growth in global trade. Affiliates of U.S. multinationals have been increasing their share of world exports. U.S. majority-owned manufacturing affiliates increased their share of total host-country exports from roughly 8 percent in 1966 to roughly 10 percent in 1977 (Lipsey and Kravis [1982], pp. 25-26). Their share of exports in total affiliate sales (i.e., exports plus host-country sales) rose from 16 percent in 1957, to 19 percent in 1966, to 31 percent in 1977. The rise was especially pronounced for affiliates in east and southeast Asian countries. Exports of U.S. affiliates to third-country markets grew

2. Export shares of tangible good production and import shares of tangible good consumption have grown even more dramatically.

3. Bradford [1983], Table XI, citing a study by Morgan Guaranty Trust Company, summarized in their *World Financial Markets*, June 1983, Table 4, p. 7.

most rapidly; exports of U.S. affiliates back to the U.S. grew more sluggishly. The share of exports to the U.S. in total U.S. affiliate exports declined from 38 percent in 1957, to 30 percent in 1966, to 29 percent in 1977 (Lipsey and Kravis [1982], pp. 3-5).

Certain sectors have contributed disproportionately to the U.S. stake in global trade. Others have suffered the spillover consequences. This **sectoral** imbalance is one of the many forces that underlie recent industrial change in the U.S. The remainder of this section addresses these matters briefly.

Growth in agricultural exports has been highly significant for the United States (and also significant for the European Community). U.S. agricultural exports increased sixfold in the value from \$7 billion in 1970 to \$41.3 billion in 1980 (United States [1982], p. 17), then declined to \$39.1 billion in 1982, while world agricultural exports continued to grow (*Wall Street Journal*, May 19, 1983, p. 1). U.S. agricultural imports grew more modestly, from \$6.2 billion in 1970 to \$17.1 billion in 1982 (U.S. Department of Commerce [1972], Table B1, [1983], Table 3). Net agricultural exports thus increased from roughly \$1 billion in 1970 to \$22 billion in 1982.

Growth in repatriated investment income from assets owned abroad has also been highly significant for the U.S. Such investment income is properly understood as payment for a kind of export, an export of the services of U.S. capital that is employed abroad. It increased almost 750 percent, from \$11.7 billion in 1970 to \$85.9 billion in 1982 (and also in 1981). Growth in U.S. investment payments to foreigners, i.e., import of the services of foreign capital, increased even more rapidly from \$5.5 billion in 1970 to \$57.2 billion in 1982 (United States [1983a], Table B-101, [1983b], p. 36). Net exports of capital services for the U.S. have thus increased from \$6.2 billion in 1972 to \$28.7 billion in 1982, a change of almost exactly the same value as the change in net agricultural exports.

Some commentators have argued that the U.S. has grown increasingly attractive as a safe haven for footloose global financial capital. They see the U.S. as an increasingly competitive supplier of investment assets — secure, high-yielding claims on future purchasing power. Data on U.S. trade in such claims up through 1982 do not, however, seem to bear out these conjectures. Average annual capital inflows (exports of claims on the future) have doubled or tripled since 1974, depending on measure. Yet average annual capital outflows (imports of claims on the future) grew comparably. Net export of

such claims, the capital-account balance, shows no systematic trend from 1974 through 1982.⁴

Gross international trade in financial assets has accelerated strikingly, however, with implications to be discussed below. Data on annual capital movements understate the acceleration because of recurrent ebbs and **reflows** during a year. The acceleration can be more readily glimpsed from surveys conducted by the Federal Reserve Bank of New York. In April 1983, the gross value of *daily* transactions in the U.S. foreign exchange markets was estimated to be \$33.5 billion; three years earlier, in March 1980, it had been estimated to be \$23.5 billion; and in April 1977, it had been estimated to be only \$5 billion (*Wall Street Journal*, September 8, 1983, p. 3, Revey [1981], p. 32, and Federal Reserve Bank of Chicago [1980], p. 3). Since U.S. trade in goods and services at most doubled during the same period, most of the remainder of the near five-fold increase in transactions is likely due to U.S. international capital movements.⁵

Growth in net agricultural exports, investment income, and possibly capital inflows has arguably tended to "crowd out" exports of manufactures and other products, and "crowd in" imports of all kinds (United States [1983a], p. 54). The most immediately understood explanation is the tendency for exogenous⁶ growth in one type of net exports to raise the dollar's foreign exchange value, thereby reducing the international competitiveness of all other types of net exports. The ultimate explanation, however, for these crowding tendencies is the relative price adjustment that in due time brings about the same anti-competitive effect. From this perspective, growth in U.S. agricultural trade, maturation of the U.S. as an international creditor, and possibly the attractiveness of the U.S. for financial investments are potential sources of U.S. "deindustrialization."

4. The large (\$41 billion) statistical discrepancy in 1982 suggests the possibility, however, of substantial unrecorded capital inflows.

5. Some may also be due to increased U.S. bank activity in the global foreign exchange markets, of course (Revey [1981]).

6. There is an important empirical question being glossed over in this account that is, to my knowledge, unanswered. The question is loosely, which trade trends were the "crowders" and which were the "crowdees"? More tightly, the question concerns exogeneity. Did agricultural, debt-servicing, and oil-price forces from outside the usual frame of economic reference crowd out U.S. industrial exports and crowd in U.S. industrial imports? Or did deindustrializing forces from outside the usual frame of economic reference crowd in fuels imports and investment income and crowd out agricultural goods into world markets? As the text reveals, my own tendency is to answer the first question, "yes, strongly," and the second, "maybe, but not dominantly." Less casual empirical work could test these causal linkages and assign weights to alternative exogenous forces.

During the mid-1970s these deindustrializing tendencies were checked by equally dramatic growth in net U.S. imports of fuels and materials, chiefly petroleum. Imports of petroleum and related products grew from \$2.9 billion in 1970 to \$8.4 million in 1973, leaped to \$26.6 billion in 1974, and grew erratically to \$79.4 in 1980 (United States [1983a], Table B-102). But U.S. oil import growth turned dramatically negative in 1981, in reflection of still higher price, recession, conservation, and domestic production. Gone was the chief counter-balance to the potential deindustrializing trends described above.

Buoyant growth in agricultural competitiveness, investment income, and possibly inward financial capital movement all contribute to the spectre of sweeping deindustrialization. They are the opposite face to declining U.S. competitiveness in manufactures, where Japan seems committed to excel in high-technology goods, and gangs of developing countries seem committed to excel in low-technology goods. Nevertheless, evidence for across-the-board U.S. deindustrialization through 1980 is not very convincing. And evidence since 1980 is contestable.

From 1973 to 1980, the U.S. trade balance in manufactured products was generally positive and often growing, as shown in Table 1. Furthermore, from 1973 to 1980 labor productivity and the capital-labor ratio grew faster in U.S. manufacturing than in any other broad sector, and U.S. manufacturing employment grew faster over the same period than manufacturing employment in any other industrial country (Lawrence [1982c], pp. 13, 16); see also Branson [1983b], pp. 10-19).

Since 1980, aggregate data on U.S. trade and manufacturing might be read to imply sweeping industrial exodus from the United States to other countries. But a persuasive alternative explanation is that U.S. industry as a whole (and not just housing and consumer durables) has borne the greatest burden from monetary and fiscal innovations during this period. If so, then (to anticipate the section on policy options) moderating the monetary **and/or** fiscal stance of the U.S. government may be the most direct and effective reindustrialization policy available. Industrial and trade policies aimed at reindustrialization may by comparison be second best, attended by an unfortunate number of unwanted precedents and byproducts.⁷

7. William Diebold has pointed out the parallel to the frequent demonstrations of U.S. inability to compete internationally in the late 1960s, most of which were proved false by the 1971-73 adjustments of exchange rates.

The case for moderating fiscal policy is strong, and summarized well in Feldstein (1983) and Branson (1983c). Growing full-capacity budget deficits drove up U.S. real interest rates in 1981-1982. Increasingly pessimistic forecasts of future budget deficits drove up anticipated levels of future real interest rates. During this period, international capital movements toward the U.S. and parallel policy abroad closed the real-interest differential. The capital inflows forced the dollar to a higher level, and reduced the international competitiveness of U.S. goods. As the real-interest differential was closed, the appreciation ended. But the dollar remained at a higher and less competitive level. And it will stay until the reallocation of financial capital stocks toward the U.S. is reversed. Reversal will require some exogenous innovation to lower U.S. real interest rates (or raise foreign real interest rates). One such innovation would be legislation that would establish a credible reduction of future budget deficits. Anticipated future real interest rates would then fall. Current real interest rates would tend to fall in response, through induced changes in the timing of borrowing and lending. And the current value of the dollar would fall as expected and current real interest rates fell.

TABLE 1
Overall U.S. Trade Balance in Manufactured Products
(billions of dollars)

1973	- 0.3
1974	8.3
1975	19.9
1976	12.5
1977	3.6
1978	- 5.8
1979	4.4
1980	18.8

Source: United States (1982), p. 280.

The case for moderating monetary policy is weaker. The most important recent monetary innovation was arguably the shift toward contraction in late 1979 and 1980. The burden on U.S. industry was very pronounced shortly thereafter, as the dollar quickly overshot (Branson [1977], Dornbusch [1976]), appreciating more than its ultimate equilibrium amount, and making U.S. goods immediately less competitive in international markets. Then the burden may have

increased in intensity, cumulating for as long as real U.S. interest rates lay above global levels (Richardson [1983], p. 23 *passim*). Yet by 1983, the economy may finally be witnessing an adjustment of expectations to permanently lower rates of monetary growth and inflation. If so, then the real effects of the monetary shift of 1979-1980 will have almost died away — including its effects on real interest rates and the international competitive position of U.S. goods (Richardson [1983], pp. 13-17). To alter U.S. monetary policy in any surprising way in 1983 might only confuse and retard the adjustment of domestic and international economies to lower U.S. inflation.

In short, industrial flight from the U.S. to other countries may only **appear** to be an inexorable external force in the economic environment of the 1980s. Macroeconomic policy rather than inevitable industrial relocation may be the principal culprit.⁸ Macroeconomic policy renovation rather than trade policy may be the principal solution.

This policy-centered account of U.S. deindustrialization in the 1980s is consistent with the trend and timing of the decline in U.S. international competitiveness in Table 2. The decline in competitiveness is most pronounced in 1981, as both monetary and fiscal innovations caused real interest rates to rise and the dollar to appreciate. No significant additional monetary innovations occur in 1982, but further fiscal innovations do — in the form of increasingly bleak budgets and full-capacity budget forecasts. The further decline in U.S. competitiveness is large, but less pronounced than in 1981. As the bleakness of the budget outlook stabilizes (that is, becomes no bleaker) toward the end of 1982 the dollar also begins to stabilize, albeit at an uncomfortably high exchange value.

Aggregate trends notwithstanding, among U.S. manufacturing industries there is evidence of secularly declining international competitiveness for some, and secularly improving international competitiveness for others. The United States could be argued to be **deindustrializing** in the first group and prospering in the second. A familiar measure of these trends is a sector's trade balance. Table 3 includes trade balances for both groups, for two years in which aggregate U.S.

8. A paraphrase of Cassius may apply: "The fault, dear Brutus, lies not in our stars, but in our self-selected macroeconomic policy."

TABLE 2
Percentage Change In International Competitiveness
of U.S. Manufacturers Over the Previous Year*

1975	-3.5
1976	-1.4
1977	0.2
1978	3.6
1979	-0.1
1980	-1.8
1981	-9.8
1982	-7.4
1983†	-2.6

* Percentage changes in the reciprocal of the "real effective exchange rate" of the dollar, which is an index of trade weighted exchange rates adjusted for inflation differentials in wholesale prices of nonfood manufactures for a group of major developed countries.

† April 1983 over April 1982.

Source: United States (1982), p. 174, Morgan Guaranty Trust Company, *World Financial Markets*, May 1983, p. 10.

international competitiveness was roughly the same.⁹

In general, U.S. imports are becoming more complementary to domestic production. The trend over three decades is toward increasingly positive U.S. trade balances in capital goods, chemicals, and agricultural products, and increasingly negative U.S. trade balances in fuels, automotive products, and consumer goods. This appears to reflect restoration of pre-World War II trends (Branson [1980, 1981, and 1983b], Lawrence [1982b and c], Deardorff and Stem [1983]).

Increasing complementarity of this sort probably makes domestic adjustment problems more, severe (Branson [1980], Krugman [1982a]). Skills, technology, and equipment differ more radically between import-competing industries and the rest of the U.S. economy than in the past, when U.S. trade was more heavily intra-industry trade. With increasing complementarity, ebbs and flows of U.S. international competitiveness may cause structural/transitional unemployment and excess capacity to be correspondingly larger and longer than in the past.

The amplitude of U.S. industrial and agricultural fluctuations may become larger due to growing dependence on global commodity markets and increased export specialization on capital goods. Business

9. With March 1973 serving as a base of 100, the average real multilateral trade-weighted value of the dollar was estimated in United States (1983a), Table B-100, to be 98.8 for 1973 and 100.8 for 1981.

TABLE 3
Selected U.S. Manufacturing Trade Balances
(billions of dollars)

	<u>1973</u>	<u>1981</u>
Textiles	-0.5	0.5
Clothing	-2.0	-6.8
Iron and steel	-2.0	-9.3
Chemicals	3.5	13.6
Machinery and equipment (except vehicles and appliances)	11.9	43.5
Road-motor vehicles and household appliances	-6.8	-19.9

Source: Deardorff and Stem (1973), pp. 7-8, adapted from GATT (1982), Table A19. Branson (1980), pp. 212-231, summarizes these same trends in even greater industry detail. See also United States (1982), pp. 167-170.

swings in agricultural prosperity are increasingly influenced by exchange rates and by foreign as well as domestic weather patterns. Business swings in capital-goods sectors are subject to accelerator influences that magnify ripples in global activity into waves in U.S. manufacturing production. This also may make domestic adjustment problems more severe and enduring, as congestion and slower clearing of labor and other factor markets is the result of larger cyclical swings.

Some commentators have alleged that U.S. imports are also becoming more "intermediate" in nature due to growth in global or "out-" sourcing and co-production arrangements (Bluestone [1983], pp. 18-19). The evidence is largely anecdotal. Data on imports by end use are not helpful in assessing the allegation. The share of industrial supplies and materials in total U.S. imports (each measured exclusive of petroleum products)¹⁰ fell from 34.6 percent in 1970 to 31.9 percent in 1973, leaped to 36.7 percent in 1974, and has declined gradually since then to 29.0 percent in 1982. This does not suggest growing "intermediate-ness" of trade. On the other hand,

10. "N.e.c." imports are also removed from the total. Source: U.S. Department of Commerce, *Survey of Current Business*, various March issues.

the end-use classification assigns many parts and sub-assemblies to categories such as "capital goods" and "automotive" that are not, therefore, strictly measuring final-goods imports.

If U.S. trade is becoming more concentrated on intermediate and capital goods, then trade policy may affect industrial factor markets more importantly than it affects final demand. Its consequences for industrial structure may be more a matter of how it influences input costs and availability of capital and materials than how it influences product demand, and dependent more on elasticities of substitution among factors than among products.

Net U.S. exports do not seem to be becoming less technology-intensive, despite success by Germany and Japan at narrowing the "technology gap" of the 1950s and 1960s. Technology gaps have closed for some products, but not overall, and have opened wider in some instances. Table 4 illustrates how data on trade that is intensive in research and development (R&D) show no across-the-board loss of international competitiveness for U.S. producers.

TABLE 4
U.S. Trade Balances in . . .
(billions of dollars)

Years	R&D-Intensive Manufactured Products	Non-R&D-Intensive Manufactured Products
1960-1964*	6.8	- 0.5
1965-1969*	9.0	- 4.5
1970-1974*	14.7	- 13.2
1975	29.3	- 9.5
1976	29.0	- 16.5
1977	27.1	- 23.5
1978	29.6	- 35.4
1979	39.3	- 34.8
1980	52.4	- 33.5

* Annual average.

Source: United States (1982), p. 156, from the National Science Foundation. See also Balassa (1983).

It is perhaps not surprising that persistent (albeit waning) U.S. technological leadership in world markets escapes popular attention (Branson [1983a], p. 1). Sectors with rapidly expanding technology-

based exports tend to be small and to lack well-established public identity and geographical location. They are not nearly as identifiable statistically or as easily recognized by the public as are sectors such as "steel" or "autos." Such sectors on the edge of technology-based import competition tend to be large, long-established, and well-defined in geographic center and political backing.

The United States continues to dominate other nations in R&D expenditure. As late as 1979, the U.S. was spending nearly as much on R&D as all other OECD countries combined (Piekarz, Thomas, and Jennings [1982], pp. 14-15). While losing ground to Japan and Germany (but not to others) in the late 1960s and early 1970s, the U.S. has stabilized its relative position since 1975.¹¹ Most of the recent acceleration of U.S. R&D has been business spending, not government. And proportionally less of it has been agricultural than for other nations (Piekarz, Thomas, and Jennings [1982], p. 25).

The changing policy environment

The environment for trade policy has also changed significantly in recent years. Some changes are most pronounced in the U.S., such as the growing power of its trade policy for domestic purposes, and its waning power for foreign-policy purposes. Other changes are global, such as growing policy disorder — the declining adherence of governments everywhere to establish policy conventions and to long-standing commitments. Most fundamentally, the whole conception of trade policy as an interference in markets is being re-examined. Recent institutional trends suggest alternative conceptions of trade policy as a participation in markets or as a replacement for them.

These aspects of the trade policy environment are discussed below under the headings policy power, policy order, and policy "place."

Policy power

Trade policy has always served two masters, and is in fact a way of discriminating between them. For the United States in recent years, one master has grown in relative influence. Domestic economic prosperity has become increasingly sensitive to trade policy, which has been turned more and more toward meeting its demands. **Intern-**

11. However, a broader but more dated study of U.S. technological leadership (U.S. Library of Congress [1980], p. 34, cited by Lawrence [1982b], pp. 37-38) includes measures additional to R&D for which Germany and Japan continued to close the technology gap into the late 1970s.

tional and national security goals of U.S. trade policy have correspondingly declined in relative importance (Baldwin [1982], p. 1 passim; see also Blackhurst [1981]).

This is a predictable result of growing U.S. dependence on international markets, discussed above, and of the decline in U.S. hegemony, discussed below. Growing U.S. trade dependence increases not only U.S. vulnerability to international competition, but also the effectiveness of its trade policy for domestic purposes. Elasticities of sectoral output, employment, and profit with respect to trade policy rise as import and export shares rise. When trade shares were small, even export and import embargoes had only modest impacts on domestic industries. As trade shares have grown, so has the attractiveness of trade policy to attain domestic goals, and to defend against "unfair" trade practices¹² of foreign firms that are no longer just token competitors for U.S. gains."

Furthermore, as the rest of the world has grown relative to the U.S. since World War II, its trade dependence on the U.S. has declined. Elasticities of global output, employment, and profit with respect to U.S. trade policy have become smaller. U.S. ability to influence world economic prosperity has therefore declined, and so has the importance of this goal in shaping U.S. trade policy. The important, but non-voting, foreign constituents of U.S. trade policy have taken careful note of its reduced influence on them at the same time as voting U.S. constituents awakened to its growing influence on them. Reflective of these trends is the long decline in the influence of the internationally minded State Department over U.S. trade policy and the more recent ascension of the Agriculture and Commerce Departments.

Trade policy, of course, discriminates by definition in favor of either a domestic or foreign constituency and against the other. From this point of view, one of the most troublesome aspects of recent trade policy is the increased weight given to its use as an aggressive or defensive tool in an implicit economic war between countries. This

12. Baldwin (1983), pp. 18-19, documents the increasing U.S. prosecution of unfair trade cases. An aspect of these that underscores the increasingly domestic intent of U.S. trade policy is the role that plaintiff firms themselves are given in government negotiations over unfair trade practices, as a result of 1979 amendments to the Trade Act of 1974. See, for example, the account of the October 1982 U.S.-European steel agreement in the *Wall Street Journal*, November 23, 1982, p. 26.

13. Carroll (1982) is a helpful summary of the decline in the size of U.S. firms to foreign firms over the period.

tendency is exacerbated by social trends such as declining personal responsibility and increasing resort to "blaming." When constituents fail to take appropriate responsibility for their own economic prosperity and blame external forces instead, foreigners are tempting scapegoats. Democratically elected representatives must in some measure reflect these attitudes or else be guilty of misrepresenting their constituents. The result is an increase in the use of trade policy to punish "blameworthy" foreigners and to protect "innocent domestic victims" from foreign machinations, or even from the impersonal circumstances of global markets.

Policy order

Order seems to be declining and aggression rising in the formation of national trade policy. A familiar American image may help to flesh out this observation. "Frontier justice" has seemed increasingly to order trade and policy. Under frontier justice, if a government can get away with it, it should do it. Strong governments survive prosperously; weak governments, tenuously. The economic problem with frontier justice is unpredictability.¹⁴ More organized systems of justice regularize economic exchange, establishing boundaries for what qualify as voluntary transactions, rules governing the exploitation of market advantage, and sanctions to guarantee the enforcement of contracts. Frontier justice, by contrast, can destabilize economic exchange, becoming an irritant to the market rather than its lubricant.

Another way to describe frontier justice among governments is to call it policy aggression. Tendencies toward such are always present, of course. Yet some of the constraints that check policy aggression have become looser. U.S. hegemony¹⁵ has waned since 1945, however one defines it. And undesirable though it was in some ways, it clearly checked the scope for policy aggression, much as the frontier sheriff or U.S. marshal checked the scope for frontier justice. U.S. influence was, roughly speaking, once sufficient to make other nations fall into line in trade policy, exchange-rate policy, and the international institutions that oversee them, but the U.S. seems currently less able and less willing to play that role. The awkward ques-

14. Alan Deardorff has pointed out that another problem is resource waste from private attempts to provide protection, an inherently public good.

15. See Gilpin (1977). Keohane (1980), Kindleberger (1981), and Krasner (1976) for extended discussions of hegemony and international economics. See Blackhurst (1981) for implications that are similar to those described here.

tion this raises is: What happens on the frontier when the citizenry grows stronger and when the sheriff not only grows weaker, but begins to act just like everyone else? The problem facing both trade policy and exchange-rate policy is how to avoid frontier justice in inter-government relations — how to re-order policy interchange.

It may be unduly alarmist to claim that declining order is a fact. For example, the U.S. Trade Representative's Office (United States [1982], pp. 55-61) expresses considerable satisfaction with the orderly working of the seven codes on non-tariff barriers that were negotiated in the Tokyo Round, and with the code committees that meet periodically to oversee them. Yet the very same report contains conspiratorial comments such as, “. . . most ominously, there has been an increase in secret and voluntary restrictions over the past decade . . . unpublicized, secret safeguard understandings” (p. 35). Lawrence (1982a), pp. 36-40, also documents the decline in transparency of recent trade policy, consistent with the attempt by countries to advance their own welfare at the expense of others without being detected.

Increasingly aggressive trade policies are to be **feared** more for their potential to disorder resource allocation than to mis-order it. To put the problem even more starkly, the law of the jungle may increasingly dictate policy interchange among governments. Yet this is as haphazard a way of ordering policy transactions as it is of ordering market transactions. Even laissez-faire economists have in mind some particular legal structure of common-law conventions when they favor free markets and liberal trade policy. The threat is that longstanding legal structures and conventions governing government behavior will be abandoned. Uncertainty at best and chaos at worst could be the consequence for international trade and investment. The danger of the worst case can be appreciated by considering what happens to everyday commerce during civil disorder, when legal systems crumble and vigilantism waxes strong.

Policy "place"

Policy may have an increasingly natural "place" in international trade because of changing institutional features. What we call trade policy may become less a distortion of markets and more a participation in them or a replacement for them. Part of this trend is due to governments' relation to multinational corporations, whose share of global transactions is rising. A second part is due to governments'

role as an insurer or guarantor on behalf of its constituents.

Governments have been gradually acquiring increased ownership stakes in corporations. Public corporations have grown, private corporations have been nationalized, and governments have acquired equity shares in both new and old ventures (Vernon [1983a, 1983b], pp. 31-34), Vernon and Aharoni [1981], and Kostecki [1982]). Trade policy is inevitably tugged in the direction of preserving employment (a kind of public labor hoarding), growth, and the capital value of publically owned equity, especially at the expense of employment, growth, and equity in the firms of foreign competitors. Trade policy may take on certain aspects of boardroom policy as trade itself includes more state trading. And state trading is inevitably more "politicized" than market trading. Certain quasi-mercantilist perspectives acquire respectability in this environment, as described in the next section.

Second, it seems clear that the citizenry of industrial countries looks more and more to government as the guarantor and insurer of economic prosperity and security. At the same time, it seems likely that increasing integration of international markets exposes domestic agents to larger and more frequent unanticipated shocks, despite diversification opportunities.¹⁶ Since insurance markets may not provide adequately against such shocks, and since capital markets may not be sufficiently perfect to allow appropriate diversification, trade policy may emerge as a feasible and reasonably inexpensive second-best alternative, as also described in Section 4.

Pros and cons of new perspectives on a more active U.S. trade policy

Even if the United States were to return on average to full capacity and acceptable exchange rates, industrial pressures for active U.S. trade policy might emanate from three sources. One, described above, is the ongoing rationalization of global industrial structure,

16. The argument is expanded in Grossman and Richardson, pp. 20-23. It is that information is generally more *mobile* (cheaper to acquire and convey) within a nation than across national boundaries. Firms and other economic institutions will usually find it optimal to acquire less information about foreign markets and government policy than about domestic equivalents. (Presumably they proceed in such a way that an extra dollar spent on information-gathering would reap results of the same marginal value for information abroad as at home.) The result is that economic agents will generally be better able to anticipate and forecast domestic events than foreign events. The *variance* of unexpected business shocks should be larger the more dependent a sector is on exports or the more competitive it is with imports.

coupled with the still incomplete elimination of the post-World War II gap between American and foreign industrial technology, equipment, managerial expertise, and firm size (Branson [1980, 1981], Carroll [1982]). A second is the perception that aggressive government policy abroad aids foreign firms in their attempt to catch up with and surpass their American competitors. A third is the conviction that the international economy is growing more volatile and uncertain, partly because of floating exchange rates, partly because of policy disorder, and partly because of ambiguity about debt crises and oil prices. American industry often perceives both the economic environment and the policy environment to be conspiring against it.

As firms have grown multinationally over the years, and as the European Community, coproduction, joint ventures, and ambitious development plans have encouraged their global identity, national markets have taken on an increasingly oligopolistic structure, with similar firms in each. And as both policy and exchange rates become less predictable, world markets appear to take on an increasingly stochastic and less static structure. Traditional trade policy analysis, by contrast, has tended to retain the static competitive norm, producing conclusions that are sharp and familiar. Recent trade-policy analysis, however, has begun to incorporate imperfect competition among segregated national markets as a maintained distortion," and stochastic shocks as a fact of life. Its conclusions are only conditionally sharp, and not yet either complete or familiar. This is not surprising, since multiple distortions to the competitive norm casts analysis into the complexity of second-best economics. But imperfect competition, segmented markets, and incomplete insurance against stochastic change, unlike other potential distortions, are realistic and important.

This section summarizes some recent trade-policy analysis in imperfectly competitive, segmented, and stochastic worlds. It attempts to draw out its practical implications for the United States. The risks in doing so, as Paul Krugman once remarked, are similar in many ways to those associated with recombinant DNA.

17. The reality being reflected is *not* increasing a global or even national concentration of production. On the contrary, global industrial concentration has probably been declining since World War II (Vernon [1977], pp. 73-82). The reality being reflected is, however, increasing shares of production by multinational firms, as outlined above.

*"Strategic" trade policy . . .*¹⁸

When the behavior of foreign individuals, firms, and even governments¹⁹ is sufficiently competitive, then there are only weak defenses for trade policy intervention. In the absence of market distortions, market-determined trade wastes fewest resources; in the presence of market distortions, policies other than trade policy waste fewest resources. But when policy abroad, collusion abroad, or both lead foreign countries to act strategically as a group-conscious whole, then passive U.S. policy response is unlikely to be the optimal rejoinder. It is as unlikely as finding in a two-person game that one player's optimal strategy is independent of the other's (Branson and Richardson [1982], p. 21, United States [1983a], p. 61).

. . . *toward governments.* Consider strategic trade policy by foreign governments even in the presence of reasonably competitive markets. Then there would seem to be a problem with passive U.S. trade policy — policy that is invariant to time or circumstance, of which the best known (but least practiced) variety is free trade. The problem is that policy passivity is equivalent to allowing some other government to set trade policy for ours. And given the choice between us actively determining our own policy and someone else doing it, only foolish or incompetent governments would seem well advised to choose passive trade policy.

The point can be made in a more arresting way. Some economists defend passivity and forswear active trade policy because active policy almost always beggars our neighbors — we improve some domestic situation by making the same situation worse in our trading partners. But in this light, passive trade policy is equivalent to allowing foreign governments to beggar us with impunity. It is almost as if our policy were to allow their policy to decide for us. That is not on the face of it a better course of action. And it is clearly worse when a government allows others to exploit its constituents by slavish allegiance to some notion that markets can do it better.

These considerations notwithstanding, some commentary continues to favor passive trade policy. Baldwin (1979), p. 236, characterizes the view of economists who consider efficient resource allocation to be the key objective of economic activity as follows:

18. A more detailed expansion of this subsection is in Branson, Grossman, and Richardson (1983). See Dixit (1983) for an even more complete survey, with ample caveats.

19. Governments compete with each other, for example, to attract foreign investment.

"The fact that a foreign government's subsidy policies place severe competitive pressure on certain U.S. industries . . . is not in principle different from the fact that the existence of lower wages abroad puts severe competitive pressure on particular U.S. industries. If foreign governments want to use their own taxpayers' money to provide us with goods at lower prices than we can provide ourselves, then we should welcome the addition to our living standards."

The implication of this view is that foreign governments should be free to choose their own optimal pattern of industrial subsidies and that our policy response should always be passive. That stance abjures the strategic insight that *our* policy may be able to improve for us *their* calculation of optimal policy (whereas our policy is not likely to be able to influence foreign wages). That is, we may be able to choose some active policy, or menu of active policies (contingent on foreign response), that would shift "optimal" foreign policy to an outcome more desirable to us than the outcome under policy passivity (Macdonald [1983], pp. 13-15).

Policy passivists sometimes recognize this but find the complexity and unpredictability of strategic policy to be overwhelming defects. These practical concerns are given more attention below. In principle, active dissuasionary policy may not be at all complex or unpredictable. It may even involve no resource cost, despite its active character. Domestic anti-dumping duties provide a potential example. If they were credibly anticipated by foreign suppliers and rescinded once dumping ceased, then no dumping would take place and no duty would be levied (Eichengreen [1983], pp. 9-10). Trade would appear to be free and undistorted by either policy or price discrimination. Yet the appearance would be the result of active, not free, trade policy. U.S. anti-dumping policy is meant to approach these features in its design since it is ostensibly transparent, non-discretionary, and in force for only as long as the dumping continues. In general, it seems likely that active dissuasionary trade policies would have to be predictable, non-discretionary, and temporary (contingent on foreign behavior).

. . . *toward firms*. If we now add imperfect competition among firms, matters become even more complex. The economics of active trade policy in imperfectly competitive markets is even less well developed than the economics of active government-to-government response. The chief reason for greater complexity is that the charac-

terization "imperfectly competitive" takes on many different meanings in many different contexts. Important elements of imperfect competition in early research on strategic trade policy include ongoing or transitory super-normal profits, static or dynamic scale economies, segregated product markets, and absence of markets providing adequate insurance or information about the universe of investment opportunities.

Brander and Spencer, for example, in a series of papers (1982a, 1982b, Spencer and Brander [1982]) generate a possibility for strategic trade policy that is aimed at capturing (or preserving) super-normal profits. One source of super-normal profits is obviously permanent market power. Another is temporary market power that accompanies technological leadership. Still another is the temporary super-normal profits that accrue to firms and individuals who adjust most rapidly to structural and industrial change."

Brander and Spencer start with an imperfectly competitive global industry, and take as a fact of life market segmentation that generates nation-by-nation pools of super-normal profits. Other things being the same, we would prefer that our producers had a larger share of each national pool than theirs. That preference seems sensible whether each pool is ongoing or transitory (say, because new entrants could compete it away). And it seems sensible whether we are consciously aggressive (out to maximize our share of the gains — or spoils — from oligopoly, much as we maximize our share of the gains from trade by setting an optimal tariff) or conservatively and honorably defensive (out to prevent our oligopolistic trading partners from maximizing their share of the gains from oligopoly at our expense). The point is very simple. If oligopolistic profit is inevitable, then trade patterns that give us larger access to it are economically superior to other trade patterns, given everything else.

Policy would seem at first blush to have no place here, and especially not trade policy. Our oligopolistic firms would seem to have exactly the same goals as outlined above and to be perfectly capable of taking care of themselves if they were allowed the market freedom

20. This last kind of super-normal profits is no less relevant for being even more obviously an extra-equilibrium phenomenon. When the issue is equilibrium industrial structures, as for this paper, one might argue that economies are more often between equilibrium industrial structures than at them. Furthermore, quick capture of super-normal profits is analytically equivalent to quick escape from sub-normal profits is analytically equivalent to quick escape from sub-normal profits.

to do what comes naturally to oligopolists. Allowing them to is in fact one argument for looser or even non-existent extraterritorial application of U.S. antitrust law." But Brander's and Spencer's contribution is to show that even the basic institution about oligopolistic adequacy is misleading. Policy has a potential role, and most appropriately trade policy.

Policy enters in its ability to shift the equilibrium generated by oligopolistic interchange. In an equilibrium *without* policy, the information every oligopolist has about others deprives each of any credible new threat. The information is that each oligopolist has chosen optimally in light of the underlying environment. This information removes any incentive for further alteration in oligopolist instruments. Price, quantity, quality, investment, R&D, etc. are already at their optimal values when there is genuine equilibrium. Credible policy, however, *can* change the underlying environment and shift the equilibrium.

Government subsidies for domestic R&D, for example, might reduce costs and generate new products for which our firms will have at least temporary market power. Government export subsidies, for another example, might shift out the export demand curves that face domestic firms, and shift down the demand curves facing our firms' foreign competitors. Both policies could improve the competitive position of our firms if they were judged to be credible (sustainable) by oligopolistic combatants. Foreign competitors then might take them into account as "pre-commitments" — inhospitable aspects of the competitive environment on the same order as our access to a productive labor force or to plentiful raw materials. Being first with such policy pre-commitments may be important because the payoff to reactive foreign policies of the same sort is then reduced (Macdonald [1983], pp. 13-15), and our firms may inherit a *permanently* larger share of each market's pool of supernormal profits.²² Firms themselves can undertake such strategic first strikes when they are out of equilibrium, as demonstrated in the literature on pre-emptive capital

21. October 1982 passage of legislation authorizing export trading companies in the U.S. was a mild step in this direction.

22. The technical explanation for first-strike strategic policy in Brander and Spencer is that it can shift the economy to the Stackelberg equilibrium that would have emerged had our firms been "leaders" and foreign firms "followers." Firms by themselves are unable to establish and maintain such equilibria unless there are informational asymmetries or other distortions, since otherwise these equilibria imply irrational behavior for the followers.

formation and corporate innovation (Prescott and Visscher [1976], Spence [1977, 1979], Dixit [1980], Eaton and Lipsey [1980]). But in equilibrium, threats of further thrusts by some firms are dismissed by other firms as mere bluffs. Everyone is known to have adopted optimal strategies already, from which divergence would be costly.

Governments, however, can be assumed to have potential to threaten and credibly pre-commit even after the firms attain oligopolistic equilibrium, shifting the equilibrium to obtain a nationally desirable distribution of profits. Therein lies the key asymmetry between governments and firms in Brander's and Spencer's conception, and the answer to what governments can do for firms that firms cannot do for themselves. There are of course conditioning factors. Dubious or inscrutable policies have no influence — influence stems from both credibility and public transparency. But recurrent policy may lose strategic effectiveness. It may become so regularized that it too can be described by a stable behavioral relation (a policy reaction function). Then firms may be able to predict policy accurately, treat government as another player in the competitive game, and dismiss discretionary policy divergence from regular patterns as incredible."

Brander's and Spencer's conclusions appear to be neo-mercantilistic, since they rest on "improving the competitive position of our firms." Furthermore, this seems a far cry from the traditional, respectable, and even-handed trade-policy objective of maximizing the standard of living of the whole nation. In fact, though, under the imperfectly competitive conditions described, attaining the neo-mercantilist objective is an important part of attaining the traditional national-welfare objective. Global super-normal profits are a given. Nations compete over their international distribution. The larger the share that our policy can claim for us, the larger is our national purchasing power and economic welfare.²⁴ Given the imperfectly competitive global market structure, no nation need lose absolutely from us claiming a larger share of its rents. Other nations lose only the opportunity to enjoy a larger windfall share for themselves. Nor is any nation necessarily exploited by policy as opposed to market

23. Increasingly, as governments own some or all of a firm's equity, they are closer to being just another player.

24. The gains accrue as corporate profits, of course, suggesting some shift in internal income distribution. But such shifts are not traditionally given any weight in calculations of the welfare effects of trade policy.

structure.²⁵ Nor are we necessarily exploitative to want as large a share for ourselves as possible. That is simply the logical implication of caring about national welfare. And its defensive version is even more unobjectionable. We would not sensibly choose as a nation to encourage foreign oligopolists to collect super-normal profits from us.

Trade policy (e.g., an export subsidy) is arguably appropriate to attain these objectives, given the oligopolistic structure; domestic policy (e.g. an R&D subsidy) may be less appropriate, involving unwanted second-best byproducts. The reason is Brander's and Spencer's recognition that transport costs and cultural differences separate national markets. An optimal strategic trade policy is then made up of a *set* of initiatives, a different initiative for each segregated market, all aimed at capturing the maximal share of every national pool of super-normal profits. Trade policy that is not MFN (most-favored-nation) is an effective instrument for such market-by-market profit preservation. Other policies, such as production subsidies, R&D subsidies, and MFN taxes and tariffs will often be second best by comparison.

Krugman (1982c), in a paper summarizing work by himself and others, generates a closely related possibility for strategic trade policy based on scale economies and market imperfections. Krugman examines international oligopolistic competition in a single industry. The industry has two distinctive characteristics. Firms sell their products in several national markets that are insulated from each other by transport costs and other natural barriers. And firms enjoy economies of scale of several potential kinds in production. Either cost curves decline as output increases, or cost curves are flat but nevertheless shift down when larger outputs ratify larger productive R&D spending, or when larger historical output imparts improved productivity through learning-by-doing.

Krugman's chief conclusion is that protection of domestic markets and promotion of export markets can reduce per unit costs, thereby saving resources. Cost and resource savings improve the international competitive position of our producers in all markets, not only those protected 'or promoted. The potential national-welfare gains

25. The imperfectly competitive market structure does exploit some nations at the expense of others. Those with comparative advantage in oligopolistically produced goods gain absolutely from market power. Those with comparative disadvantage in them lose absolutely from the market distortion.

from improved competitiveness are the same as in Brander and Spencer — a larger share of global oligopolistic profit.²⁶ But the mechanism for achieving these gains is different. In Krugman's work, trade policy is directly a demand-side policy, but ultimately a supply-side policy. The size of markets facing our producers directly influences the productivity of their resources and effort. Trade policy is likely to be more appropriate than domestic policies in this regard. It is by definition a discriminatory policy for altering the relative shares of every market served by both domestic and foreign firms (including third-country markets).

Krugman and others demonstrate only a potential for policy in all these circumstances, not the case for it. When information is reasonably complete, and when insurance and financial capital markets work reasonably well, markets will leave no scope for policy. The financial market will correctly identify the firm with the most productive prospects in each market and underwrite its ventures to the exclusion of its competitors; the insurance market will underwrite any risk. And the most competitive firm will become a natural monopolist in the designated market (Shaked and Sutton [1982], pp. 25 *passim*). Markets will have made sure that all scale economies are captured, leaving none for trade policy to seize.

However, when private information is imperfect, or when risks are very large, or when certain externalities are present, then policy potential may be restored. This observation is trivially true, of course, whether scale economies are present or not. Scale economies can increase the practical relevance of these causes of market failure, however, by creating multiple market equilibria (Helpman [1982], pp. 26 *passim*). Some of the many equilibria are preferable to others from the perspective of national welfare. But the economy may be stuck at an inferior equilibrium if lenders and insurers are unable or unwilling to accept the risk involved in underwriting a dramatic change in resource allocation, even when the expected reward is quite high." Good information about the immediate neighborhood of a (stable) equilibrium helps keep the economy there; poorer informa-

26. Krugman properly refuses to draw any definitive welfare conclusions, however. His analysis relates to a single industry only, and he observes how complex is the analysis of simultaneous distortions to the competitive norm — in this case oligopoly and trade policy intervention.

27. This observation has a long and full history in the analysis of trade policy. Caves (1960, pp. 161-174) gives a thorough summary. See also Meade (1955, Ch. XXI).

tion about more distant neighborhoods and equilibria is heavily discounted by risk aversion and institutional limits to the size of downsize loss that any firm can accept. Of course, once again these observations establish no case for policy, only a potential. And it is a potential that rests on the dubious reeds of superior government information and risk management. When markets do badly, governments may do even worse.

Many other practical and conceptual objections temper the arresting conclusions outlined above. But it is worth noting in turning to them that the force of the objections does not differ markedly from the force of those that are often raised against free trade. Differentiating sensible trade policies from nonsense is thus a complex task, better achieved by careful analysis with realistic roots in historical precedent than by sloganeering application of ideology.

For example, one conceptual objection to the strategic trade policies described above is that our firms and projects must be distinguishable from theirs. This point is important because many firms are trans-nationally owned, and many projects are joint ventures by firms with different nationalities. Trade policies that redistribute profits toward some favored project or toward some favored firm will fail to aid us significantly unless our residents have disproportionate stakes and shares in the favored projects and firm. But global integration of capital markets seems to be moving the world closer to an extreme in which profit-earners worldwide hold comparable portfolios of investments. In this extreme, national trade policies would be completely ineffective for capturing or preserving super-normal profits for us.

A similar conceptual objection could be raised to the familiar view that we would be better able to exploit our technological advantage if outward technology transfer were somehow restricted. The view can be supported analytically in an imperfectly competitive world where technology bears a national label (Krugman [1982b], Feenstra and Judd [1981]). But in today's world, technological advantage should not too readily be seen as a national factor of a production similar to labor and capital. It is more typically a corporate factor of production and hence belongs to **firms** rather than to countries. National policies aimed at circumscribing the application of technology or at appropriating a larger share of its gains may not succeed (Lipsey [1982a]). Nor do nations where technology is applied necessarily gain more than the enhanced productivity of local resources, since monopoly

profits often become a part of rapatriated corporate income.

More practically, one can object that successful government trade policy along strategic lines would require the same flexibility, centralization, and managerial discretion as are found in firms. It is not clear that the U.S. government can feasibly adopt these characteristics without sacrificing some democratic tradition (Lawrence and Krause [1982], pp. 7-10). In the United States, **government's** functions are constitutionally delineated, legislatively detailed, and judicially defended. Constitutional, legislative, and judicial checks and balances are built into the U.S. political system precisely in order to make U.S. government *less* flexible, centralized, and managerial. Americans fear more than most that such governments can become capricious and tyrannical. Furthermore, flexible management of policy tactics without sensible long-run policy strategy may create the worst kind of whimsical disordering of investment and resource allocation (GATT [1982], p. 23).

The most significant concern regarding activist trade policy along these lines, however, is that it is rooted in a kind of aggressive, frontier-like competition for the spoils of oligopoly or of desirable industrial structure. Some might answer that "that's life," that we should learn to live with it in our policy. But such policy runs all the risks of the economic disorder described above the remarks on frontier justice.

The crucial question is thus whether there are any sensible alternatives to living with frontier justice. It is easier to describe first what seem to be unlikely or undesirable alternatives. One is a return to hegemonic policy leadership in the fashion of the frontier sheriff. This seems out of the question for any government, barring a massive military realignment that might emerge from world war. Also out of the question is an extensive (that is, global) set of new rules governing trade relations. Such initiatives are at worst unappealing, and at best premature — in the same way that the U.S. Constitution was premature before a decade's experience with the more loosely binding, less inclusive Articles of Confederation. Finally, oft-repeated exhortations to more policy coordination are only a pretender to a solution. They beg the fundamental question of why such largesse would be in the narrow national interest of aggressive governments. Policy coordination is a safe haven only in the eyes of commentators without any stake in policy aggression.

Blackhurst (1981), pp. 369 passim, describes one possible **alterna-**

tive to living with frontier justice. He references the national benefits of a return toward conventions in governmental policy initiatives. Blackhurst seems to have in mind conventions that would at least order, but not bind, trade policy. Governments themselves should be the constituents. Mutually agreed conventions protect governments from each other and also from domestic political constituents in narrow pursuit of trade policies that serve their special interest at the expense of other constituents.

There are two important practical challenges in any such return toward conventions. One is to avoid over-ambitious promulgation of rules which, when broken, breed the unpredictability and incredulousness that disorders resource allocation. The second is to keep the resource and time costs of negotiation in check.

In these lights it seems timely to consider reinforcing recent retreats from multilateralism. Multilateralism may currently be too ambitious and too costly to maintain. Bilateralism, *trilateralism*, quadrilateralism, and so on may be cheaper, more promising, and the most predictable route toward a new multilateralism. Initially, after all, GATT, IMF, and the World Bank were upheld by small, non-exhaustive groups of nations. In the light of another metaphor, small neighborhood gangs may take on the obligations of turf-sharing agreements only after a conclusive demonstration of neighborhood peace and predictability that stems from agreement within the exclusive club of larger gangs.

What this may suggest practically is aggressive bilateral peacemaking — the formation of mutually advantageous coalitions with like-minded governments.²⁸ For example, the U.S. and Japan seem likely partners for a bilateral but possibly non-MFN trade agreement that would order trade along lines that are held closely in common. A successful U.S.-Japanese trade agreement might then encourage other trade-policy combatants to sue for peace. Or, for example, the United States seems currently in a position to bargain for European trade-policy concessions in return for a recommitment on its part to exchange-market intervention. U.S. intervention, as outlined below, might purge the economic system of large unanticipated *exchange-rate* variations that may be mistaken for resource-allocational sig-

28. See Aho and Bayard (1983) and Vernon (1983b, pp. 40-41 *passim*) for more detailed consideration. The European Community has been essentially following this route as it expands, and in its preferential arrangements with non-member countries. See Camps and Diebold (1983) for arguments in favor of renewed aggressive *multilateral* peacemaking.

nals. The case for stable, predictable monetary policy to avoid resource-allocational mistakes and disorder ought to apply with equal force to stable predictable exchange-rate management.

The general goal of any return toward convention in government policy interchange is to re-order resource allocation, or perhaps more accurately to allay the imminence of disorder. Stability, credibility, and predictability are crucial prerequisites for both new trade policy and new exchange-rate policy (Krueger [1981], p. 91, Grossman and Richardson [1982], pp. 20-27, Artus [1982], pp. 10-11). These characteristics are more than simply motherhood principles. They entail, for example, more consistent and less discretionary enforcement of trade law that already exists, potential bindings of agreements made in committees negotiating non-tariff codes of conduct, and detailed and honest forecasts not only of trade trends, but of both U.S. and foreign trade policy over a medium-term horizon.

Stable, credible, and transparent trade policy is able to influence trends in resource allocation. Stable, credible, and transparent exchange rate policy is able to influence deviations around those trends. Ideal trends with minimal divergences are the obvious targets of policy. Trend mistakes are costly not only for the usual reasons, because resources are continuously less productive than they would be in the right place, but also because irreversible human and physical investment is often wasted, and because retraining and retooling costs are ultimately unavoidable. Divergence mistakes are costly not only because of human aversion to risk, but also because temporary competitive imbalances can generate empty shelves and storage lots in one location, excessive inventories in another, and resource-diverting arbitrage that transfers goods from the latter location to the former. The three respective costs associated with divergence mistakes are waste from rationing, waste from excessive stockpiles,²⁹ and waste from unnecessary transportation and redistribution.

In a peculiar way, the goals of stability, credibility, and predictability amount to making trade and exchange-rate policy more endogenous and less exogenous. Endogenous policy in this context simply means systematic policy. Policy may still be quite flexible and responsive to circumstances. But it will be governed by conven-

29. Stockpiles are costly both to maintain, and in a growing economy, to build up at steady-state growth rates. Inventories can be excessive in the sense that they waste resources on maintenance, and in the sense that they force regular incremental additions to stockpiles that could otherwise be consumed.

tions and behavior that are stable, self-enforcing, and readily apparent to economic decisionmakers. Exogenous policy in this context, typical though it is in standard economic analysis, amounts to arbitrary, unsystematic, and unpredictable policy.

Attempts to negotiate new conventions governing international trade may fail, even among limited groups of like-minded governments. In that event, the U.S. is left with the alternatives of passivity and active, nationally-centered trade policy. Passivity may well be the lesser of two evils." But trade wars are not an inevitable consequence of active trade policy. There is presumably a reasonable range of policy action that resists predation rather than fomenting feuds."

*Trade policy as insurance*³²

It is well accepted that trade policy affects production patterns. It is somewhat less well understood that it can affect both the volatility of deviations around otherwise stable **sectoral** trends and the adjustment path from one trend to another. Massive surges and retreats in recent trade volumes and competitiveness have, however, forced increased attention to the issues of adjustment and economic variability. The previous section has already introduced the idea that increasing integration of international markets exposes domestic agents to larger and more frequent unanticipated shocks.

Increasing trade according to comparative advantage induces specialization. Yet if that same trade induces economic volatility, then it may heighten the need for adaptability. Adaptability is not necessarily furthered by specialization. For example, when production patterns are replicated over time, incentives for factors to train as adaptable generalists are reduced (Grossman and Shapiro [1982]). Internal factor mobility may decline and sector specificity may increase. Trends toward specialization may be further self-perpetuating to the extent that each task undertaken by a nation or a factor features **learn-**

30. One well-known international economist has been known to say that just as with lying, active trade policy may sometimes be beneficial, but that open trade, like honesty, is almost always the best policy. He alleges to have been quoting Edgeworth, *Paper II*, p. 17.

31. William Diebold observes that at least in principle the U.S. might find passivity the best response in some sectors and circumstances, and activism best in others. He then points out the new problem such asymmetry would cause, however: allegations of inequity, and difficulties of sterilizing one set of actions against the economic, political, and judicial impacts of the other.

32. A more detailed expansion of this sub-section is in Grossman and Richardson (1982), pp. 19-26. See Baldwin (1981) for an expansion of the notion that trade policy may be the outcome of an implicit social contract to provide insurance.

ing-by-doing — productivity that improves with cumulative experience. This can diminish adaptability, which is a valuable attribute when other means of dealing with unforeseen divergences (e.g., insurance) are unavailable or under-supplied by market mechanisms.³³

Adaptability problems are exacerbated once policy response itself is endogenized. The degree of sector specificity determines the strength of the linkage between the reward to a factor and the fate of the industry in which it is located (Grossman [1981]). When dislocations do occur, such specificity may lengthen periods of involuntary unemployment and deepen income losses. The incentive for specific factors to lobby for preservation of the status quo is clear. And successful political preservation of the status quo then only leads to further investment and worker commitment, which increases sector specificity, in a vicious circle.

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In this environment the challenge to policy is formidable. Adjustment to unforeseen shocks will be facilitated if policy minimizes the economic hardship to well-defined segments of the population. Sensible policy may include temporary protection as well as subsidization of retraining and relocation (Diamond [1982]). But commitment to eventual adjustment seems a necessity, since agents will forecast future government policy when contemplating a specialized investment. Government commitment to "preservation" makes no private adjustment the rational and equilibrium response. Credible commitment to adjustment makes it possible for anticipations of government

33. This would in fact appear to be the economic rationale for national-defense objections to full-fledged free trade.

34. Alan Deardorff has pointed out further that government commitment to "eventual" adjustment makes waiting the rational private response.

reaction to alter ex ante allocation decisions. Thus sunk costs are not really sunk costs, as **Eaton and Grossman (1981)** emphasize.

Of course trade policy may not always be the ideal insulator of an economy from unforeseen divergences from international trends, nor the most desirable catalyst of adjustment from trend to trend. For example, a less wasteful alternative for achieving the same goal might be a domestic loan and insurance scheme for firms and workers, providing benefits (contingent on participation and payment of premiums) dependent on the state of competition from abroad. Under such a program, buyers would continue to enjoy the benefits of low-priced imports and incentives for factor reallocation would be preserved. In order to avoid problems of moral hazard, payments could be triggered by market conditions that lie outside the control of the decisionmakers involved. In industries where such indicators were not readily observable, trade policy might still have a second-best role. Other alternatives to trade policy as insurance are discussed in the next section.

When trade policy does function as insurance, it will impede adjustment least if it is explicitly temporary. It should also provide no unconditional windfall **gains**.³⁵ In fact, revenue-generating protection (tariffs, surcharges, auctioned quotas) has the potential to provide funds for underwriting desired adjustment (e.g., retraining, retooling, and relocation, such as rewarding workers who leave designated declining industries to accept employment in other industries.³⁶

The whole discussion of trade policy as insurance of course rests on the observation that insurance markets are incomplete and capital markets are imperfect. Then international trade that causes larger unanticipated deviations of costs, revenues, and profits may also cause larger incidence of financial insolvency for firms that are still viable in terms of underlying trends. If insolvency is a boon, implying only a transfer of ownership and a shaking out of the least viable operations in the still viable firm, then there is no case for interventionist trade policy. If insolvency is a bane, implying waste of

35. There is reason to believe that productivity slippage due to resource diversion toward lobbying and rent-seeking is far greater than the slippage due to more familiar resource misallocation. In simulation extensions of Magee and Brock (1981), Magee reports resource diversion resulting from trade policy as high as 25 percent of total factor endowments, with only minuscule resource misallocation.

36. See Hufbauer and Rosen (1983) for an application of this idea to U.S. policy. Dore (1982) defends exit-adjustment incentives in a British setting.

resources through indivisibility or immobility, then trade policy may be defensible if it reduces the frequency or severity of unanticipated international disturbances.

Even in the absence of discontinuous change or cataclysm such as insolvency, trade policy may still be defended as a second-best means of establishing insurance markets or alleviating imperfections in the capital market. **Eaton and Grossman (1981)**³⁷ demonstrate how a policy commitment to tax imports when world prices would otherwise shift domestic resources from importables to exportables, and to subsidize exports in the converse case, will meet the implicit desire of individuals to insure themselves against losses. Furthermore, **Eaton and Grossman** demonstrate the superiority of a permanent, inflexible tariff over free trade in regimes of unanticipated shocks to international prices.

In these regimes, the importance of anticipating trade policy correctly is easily seen, as discussed above. Information about trade-policy intentions and forecasts of trade-policy actions have the same kind of economic value to firms and individuals as information about market conditions. Anticipated trade policy can influence economic decisions as dramatically as the realization of the trade policy itself. Investment in equipment, worker training, and plant expansion are all examples of decisions that can be influenced by anticipations of trade policy. **Richardson (1982b)** and **Eaton and Grossman (1981)** illustrate the potential for a kind of "leading adjustment" to trade policy that has the virtue of being controlled by expected prices, costs, and profits, all of which are flexible and able to contribute to market clearing, and none of which seem likely to be distorted in any systematic or undesirable way. Thus adjustment costs associated with transparent, forecastable trade policy may be minimal.

Alternatives to a more active U.S. trade policy

Trade policy analysis obviously becomes more realistic by incorporating such ubiquitous distortions as imperfect competition and missing insurance markets. But that step toward realism does not by itself necessarily make stronger the case for active trade policy. There may still be superior policies for coping with industrial change in a competitively and temporally distorted world.

Alternatives to trade policy may be superior in several dimensions.

37. See also **Cassing, Hillman, and Long (1982)**.

They may avoid inevitable but wasteful side effects of trade policy. They may require fewer resources to legislate their advent or to oversee their administration (that, among other things, what political feasibility implies). They may hit desired targets with more accuracy. They may avoid setting unfortunate precedents and perverting productive incentives. When alternative policies have all these traits, then trade policies are simply silly and bad. They are like Rube Goldberg contraptions compared to finely tuned machines. When alternative policies have only some of these traits, however, then trade policies may begin to make sense. When they have none, then trade policies are themselves superior (first best).

In this section of the paper, we examine some policies for industrial change that are closely related to trade policy. The crucial question for research and governance in coming years is whether or not they are superior to trade policy.

The first alternative is to rely on market forces despite their distortions, that is, to have no active policy of any kind. Doing something is not always better than doing nothing, even when the problems of industrial change are severe. When markets fail, governments may fail worse.

Yet a case is made that market-based adjustment in the U.S. is working less and less well, due to the large size of recent international shocks, and due to fundamental changes in social attitudes and institutions. Labor adjustment policies are discussed as a desirable alternative (or supplement) to active trade policy. Adjustment policies for firms are argued to be generally undesirable in contrast to labor adjustment policies.

Exchange-rate stabilization is discussed as an appealing alternative to active trade policy — appealing for firms especially, and indirectly for their workers. Firms view exchange rates, unlike other aspects of their international competitiveness, as beyond their ability to control and possibly even to fathom. The unanticipated component of their volatility leads to increased interventionist pressure. Exchange-rate stabilization might satisfy firms' as much as trade policy. Brief reference is made to methods of stabilization, including intervention in the foreign exchange market, which is argued to work as long as the government's target is credible.

Macroeconomic policy renovation, discussed above, is mentioned briefly again as a compelling antidote to hyperactive trade policy.

Market reliance ("Our policy is to have no policy")

Reliance on markets to provide adequate adjustment incentives during industrial change is a fashionable alternative to trade policy in the U.S. today, at least in ideology if not in practice:

Adjustment assistance [does not of itself] effectuate adjustment. It is U.S. policy to place primary reliance on market forces to facilitate adjustment in affected industries. . . .

A better solution to the problems associated with shifts in competitiveness is to promote positive adjustment of economies by permitting market forces to operate.

Ambassador William E. Brock
U.S. Trade Representative³⁸

But just how effective is the "market for adjustment"? Does it succeed reasonably well or fail? Do government adjustment programs succeed better or fail worse? Aho and Bayard (1980), pp. 367-71, provide a useful introduction to these questions in the context of U.S. trade adjustment assistance for workers. Their litany of problems with market adjustment is familiar, and worth repeating: imperfect information, uncertainty, incomplete factor mobility, wage-price rigidities, and insufficient access to the capital market to finance the capital investments (human as well as physical) that are the concomitants of adjustment. One reason that it is worth repeating is that some of the elements are reflections of social attitudes and institutions that are not very responsive to economic policy. These attitudes and institutions may exact a sobering economic cost if they impede the ability of the market to administer adjustment adequately.

Only one cautionary note needs to be added to the litany of problems. Even with the problems, U.S. markets for adjustment have probably worked fairly well until now in practice. Furthermore, market forces will always be sufficient to generate acceptable adjustment if there is an adequately large margin of workers and firms, even a minority, *with* adequate information, confidence, ambition, acceptance of risk (observe how these personal attitudes are the counterparts to the apparently impersonal forces labelled uncertainty, incomplete factor mobility, and wage-price rigidities), and access to the capital market. Only the margin matters. Characteristics, histo-

38. Opening statement to the Joint Oversight Hearing of the Senate Committee on Finance and the Senate Committee on Banking, Housing and Urban Affairs, July 8, 1981, quoted at greater length by Gray, Pugel, and Walter (1982), end of Chapter 3.

ries, and personalities of the average worker and firm do not.³⁹

With that note of caution in mind, there are two potential dangers in leaving adjustment to industrial change to be achieved in the market. The first is that the international fluctuations that will be experienced in the 1980s may be so much larger than those of recent history that they will overwhelm the margin of workers and firms who adjust to market signals. It may then be desirable for policy to mediate the adjustment to the extent that the market cannot.

The second potential danger is that U.S. attitudes and institutions may change in such a way that the margin is narrowed, and even moderate fluctuations cannot be accommodated by market adjustment. Attitudinal and institutional sclerosis seems to be the "European disease." (Blackhurst et al. [1977], pp. 44-52, provocatively entitle one section "Protection and the Refusal to Adjust.") There are signs that Canada has caught it, and that the U.S. has been exposed. In today's Congress, there is fundamental questioning of market reliance in U.S. international economic transactions, with surprising support for a negotiated world trade structure that would administratively constrain and channel global market forces (Richardson [1982c], point 60). And Congress may be faithfully representing a shift in social attitudes and institutions that includes:

- a decline in intellectual curiosity and increasing satisfaction with shallow and indulgent education, such that uncertainty and speculation displace information and reasoned judgment.
- increasing expansion of rights at the expense of contingent privileges, positions, and property—contingent on performance — such that perceived entitlement to a particular job at a particular salary level in a particular community precludes all but a semblance of mobility and rigidifies wages, work conditions, and promotion paths.
- higher real interest rates, crowding out, and credit limitations relating to wealth inequality, all of which constrict the availability of capital-market resources for physical investment and for human investments in retraining and relocating.

Each of these attitudinal and institutional shifts intensifies the distortions that impede the market adjustment mechanism.—imperfect information, uncertainty, incomplete factor mobility, wage-price

39. Dore (1982) provides some engaging profiles of the easy adjustment undergone by firms and workers on the margin of adjustment to international competitive forces.

rigidity, and insufficient capital-market access. If little can be done about these shifts in the short run, then it may be desirable to have short-run policies that re-expand the margin of workers and firms that adjust, and policies with effective incentives to do so. It is anomalous that the social shifts so frequently decried in conservative diagnoses also undermine the conservative prescription for relief. Recourse to the market alone for adjustment may be ineffective without complementary government adjustment programs.

Government adjustment programs

Trade-related manpower policies and capital-transformation policies are worth consideration as alternatives to more active trade policies.⁴⁰

With respect to workers, adjustment-centered programs to replace moribund Trade Adjustment Assistance (TAA) seems to have potential. TAA in the U.S. is generally acknowledged to have been more a compensation program than an adjustment program (Corson et al. [1979], Aho and Bayard [1981, 1982], Richardson [1982a, 1982d]). Yet it was not devoid of adjustment stimuli. One of the less appreciated impacts of the U.S. program on labor market adjustment was its signalling dimension (Richardson [1982d], pp. 3-9). If it did nothing else, TAA certification signalled to employers and workers that a plant or firm was under important competitive pressure from imports. And it did this without significantly impeding similar adjustment signals from the market itself — wage, employment, price, and sales trends remained roughly as they were. Furthermore, there is an empirical suggestion that more generous TAA compensation increased the efficiency of job search, so that the first job taken after separation seemed to be a "better match" for the worker (Richardson [1982a], p. 350).

A sensible U.S. trade adjustment policy for workers in the 1980s might nevertheless put more weight on adjustment and less on compensation than historical TAA programs. To be considered as potential component of such a program are:

- Extension of existing U.S. employment subsidy programs, such as targeted job credits, to workers certified as having been permanently (not temporarily) displaced by trade.

40. General manpower and capital-formation policies are treated in conference papers by Wachter and by Bosworth.

- Self-financing and voluntary **loan/insurance** programs for the same kind of worker to underwrite retraining and may be relocating.
- And conditional extensions of unemployment benefits beyond normal for trade-displaced workers — conditional, for example, on employed workers and firms bearing some sizeable portion of the extra financial burden through negotiated **cost-sharing**. In addition, a new trade adjustment program should avoid clear shortcomings in the administration, eligibility, and design of past TAA programs. Aho and Bayard [1980], pp. 21-28, make helpful suggestions along these lines.

With respect to firms in distinction from their workers, the potential for trade-related adjustment programs seems weaker. Capital markets are national and international; labor markets are local. Risk-taking owners of capital are presumably better informed than workers about prospects for international industrial change, and also about more lucrative employment of their resources by moving to other industries. They have thus more opportunities to diversify than workers. Firms are supported (or confronted) by financial intermediaries with multinational scope or contacts who are presumably even better informed than the firm about international and inter-industry prospects. Except perhaps for gargantuan, highly risky endeavors with long start-up periods and economically disenfranchised future beneficiaries, one can argue that financial markets assess more or less correctly the relative productivities of alternative firms and projects. Therefore, government programs to encourage modernization and product diversification by **trade-pressured** firms probably indenture workers and managers to an institutional shell that was revealed by the market already to be comparatively unsuccessful. (If it had been a successful firm, modernization and diversification would presumably have been profitable for it without government encouragement.) There seem to be few economic reasons for preserving institutions, especially unsuccessful ones, in contrast to preserving the skills and well-being of individuals. So it would seem more productive to allow firms to die rather than to modernize or diversify, after which diversification does take place. But it will be individual-by-individual diversification by employees of the dead firm — into new skills, new responsibilities, and relatively more successful institutional shells (firms). The upshot of this argument is of course to cast doubt on the wisdom of all government programs aimed at the survival of firms

rather than their **exit**.⁴¹

Exchange-rate stabilization

U.S. efforts to stabilize exchange rates can be defended as an important alternative to active trade policy. Bergsten [1982], p. 4, suggests that "throughout the postwar period, dollar overvaluation has been the single most important 'leading indicator' of an outbreak of protectionist trade pressures in the United States." He and Williamson (1982) expand on how both misalignment (even undervaluation) and oscillation breed protectionist pressure. If the point is granted, of course, the key question is how to stabilize exchange rates. That is addressed briefly at the end of this subsection.

Over long enough periods of time, pressures for trade policy are unaffected by exchange rates. That is because *ratios* of wages, profits, and prices — in one sector relative to another and in one nation relative to another — respond only temporarily to exchange rates. These non-monetary ratios are ultimately the real measure of distributional equity and the real source of protectionist pressure. The monetary level of wages, profits, and prices doesn't really matter much. No worker, manager, shareholder, or creditor sees gross inequity or need for government protection when his or her wages and income rise as fast as prices, and when foreign wages, prices, and incomes rise at the same rate.

But over shorter periods of time, exchange-rate fluctuations can cause real adjustment and injury — in much the same way as monetary policy does. And when exchange rate fluctuations are recurrent, sharp, and unpredictable, they can lead to recurrent, sharp, and undesirable shifts in income distribution and in resources (see, for example, Artus [1982], p. 6, or Deardorff and Stem [1982]). Unanticipated exchange-rate volatility has all the unfortunate features of unpredictable monetary policy. Both can create hardship and send misleading and wasteful price signals to economic decisionmakers. Thus exchange rates are not irrelevant for trade policy even though they may be neutral in their long-run effects. Changes in the level or

41. An untraditional exit-adjustment program for firms has been proposed by Hufbauer and Rosen (1983). A trade-pressured firm's owners would be essentially bribed to leave their industry (although not their geographical region) by government purchase of capital equipment at some negotiated value. The source of funds for such purposes would be increased tariff revenues from conversion of U.S. non-tariff import barriers to tariffs.

even the trend of an exchange rate may be ultimately innocuous; changes in its variance or predictability are not.

For example, an increase in unanticipated exchange-rate volatility may cause financial failure for firms that are still viable in terms of underlying trends. This can occur when intertemporal capital-market imperfections set practical limits to the losses consistent with any firm's continued survival. Each firm views itself as having very little influence over exchange rates. (Corden [1980], p. 176, suggests that firms think of their movement as "acts of God.") Yet firms are painfully aware of exchange-rate influences on them. Depreciation and appreciation due to asset market flux cause ebbs and flows in competitiveness, cash flow, and long-term prospects.

Thus unanticipated exchange-rate volatility may heighten corporate, **sectoral** and even collective political pressure for protection, especially quantitative trade barriers. Quantitative trade barriers shrink the variance of international competitiveness, as well as changing its mean. Tariffs (more accurately ad valorem tariffs) affect only the mean (Richardson [1983], p. 21, Aizenman [1983]).

Successful policy to stabilize exchange rates would obviously eliminate the need for trade policy to compensate for volatility in international competitiveness. Furthermore, exchange-rate stabilization would eliminate the inevitable resource waste and incentive costs that would occur from having adopted relatively rigid, long-lived trade policies to solve a problem that was inherently **temporary**.⁴² Moreover, the policy apparatus necessary for the United States to at least modulate exchange rates already exists. Resources necessary to administer new trade policies (except tariffs) would have to be diverted from other productive activities. Finally, most methods of exchange-rate stabilization, unlike trade policies, create few incentives for resource-diverting **rent-seeking**.⁴³

On all these counts, stabilization of exchange rates appears to be a desirable alternative to new varieties of protection. But how exactly could U.S. policy stabilize exchange rates? The most general answer is that it would help for the Federal Reserve System to decide and

42. See the second paragraph of this subsection.

43. Neither this point nor the previous one is necessarily true of exchange-rate stabilization that is carried out by exchange and capital controls. These instruments are more typical, of course, of developing countries, and not likely to be adopted in the U.S. Some proposals for reducing exchange-rate volatility, however, such as a uniform tax on all **foreign-exchange-market** transactions and other sand-in-the-financial-wheels recommendations are a kind of capital control, but without significant **administrative** cost or rent creation.

then simply to announce that a relatively stable dollar was one of its goals in establishing U.S. monetary policy. It might help further, if governments could agree, to have several central banks announce jointly that exchange-rate volatility would influence their monetary initiatives, then to issue joint reports periodically on how it had.⁴⁴ Finally, official U.S. intervention in foreign exchange markets is worth reconsidering. Unsterilized intervention is really no more than monetary policy — open market purchases and sales of official reserve assets — so that it adds nothing except credible action to the suggestion that stable exchange rates be one of the goals of U.S. monetary policy. Sterilized intervention, by contrast, is an independent instrument for influencing exchange rates, recent official research notwithstanding. It inevitably changes the shares of domestic and foreign assets in the portfolios of the general public, and will change relative asset prices, including exchange rates, for the same reason that *any* shock to relative asset supplies does.⁴⁵

Unsterilized intervention is not without its problems, however. Two problems are often said to confront any regular and significant unsterilized intervention. One is that official reserves are inadequate to cope with massive cross-boundary portfolio reallocations. The second is that no matter how large official reserves were, rational expectations of the government's intervention, based on knowledge of its policy reaction behavior, would cause the intervention to be ineffective. It is rarely observed that both of these problems are derivative, not primary. They are themselves caused by a fundamentally deeper problem: the incredulousness with which the market greets government exchange-rate targets and commitments. Suppose instead that governments were really believed in their exchange-rate commitments, and that they really took policy action consistent with those beliefs in order to ratify them. Then the payments mechanism would work much as it did under the gold standard, although not necessarily with fixed exchange rates. Massive portfolio reallocation might indeed take place. And the government's policy reactions would be indeed transparent to rational forecasters. But any massive

44. This is a much weaker proposal than Ronald MacKinnon's (most readily accessed in two *New York Times* columns, Jan. 23 and 30, 1983) but in the same spirit.

45. It is curiously inconsistent (although understandably self-serving) for the U.S. government to imply (e.g. United States [1983a], pp. 68-69) that the U.S. asset swaps called monetary policy somehow matter, whereas the asset swaps called unsterilized U.S. foreign-exchange-market intervention would not.

capital movements based on rational expectations would themselves stabilize the exchange rate around the government's credible target. Little actual intervention would be necessary. By contrast, if the target is incredible, no amount of government intervention will succeed. The real problem is thus the stability and credibility of government financial policy, as discussed in Section 4 above. Stability and credibility seem to be as much a prerequisite for policy effectiveness as they are for personal effectiveness.

Macroeconomic renovation

In this regard, mention might be made one more time of the general renovation of macroeconomic policy discussed above. Its main attraction to the U.S. today may not be macroeconomic at all, but rather the deterrence of wasteful, incongruous, and indenturing sectoral policies that would be adopted in understandable desperation if macroeconomic performance does not improve. Among other improvements, lower real interest rates, brought about by improved future budget forecasts, would assist adjustment to industrial change in a very natural way. Lower real interest rates would facilitate the market's ability by itself to provide adequate adjustment, through capital formation and transformation, and through labor retraining and relocation.

References

- Aho, C. Michael, and Thomas O. Bayard (1980), "American Trade Adjustment Assistance After Five Years," *The World Economy*, 3 (November 1980), pp. 359-76.
- _____ (1982), "Costs and Benefits of Trade Adjustment Assistance," forthcoming in Baldwin and Krueger (1984).
- _____ (1983), "U.S. Trade Policy: Where Do We Go From Here?"
- Aizenman, Joshua (1983), "On the Optimal Combination of Commercial and Exchange Rate Policies," *Southern Economic Journal*, 50, July 1983, pp. 185-94.
- Artus, Jacques R. (1982), "Toward a More Orderly Exchange Rate System," paper given at a Wingspread Conference on Evolving International Monetary Arrangements, Racine, Wis., July 29-31, 1982.
- Balassa, Bela (1983), "The United States in the World Economy," in Christian Stouffaes, ed., *The Political Economy of the United States*, Amsterdam: North Holland.
- Baldwin, Robert E. (1979), "Protectionist Pressures in the United States," in Ryan C. Amacher, Gottfried Haberler, and Thomas O. Willett, eds., *Challenges to a Liberal Economic Order*, Washington: American Enterprise Institute.

- _____ (1981), *The Political Economy of U.S. Import Policy*, processed July 1982.
- _____ (1982), "The Changing Nature of U.S. Trade Policy Since World War II," processed, December 1982, forthcoming in Baldwin and Krueger (1984).
- _____ (1983), "Trade Policies Under the Reagan Administration," forthcoming in a National Bureau of Economic Research *Conference Report* on Recent Issues and Initiatives in U.S. Trade Policy.
- Baldwin, Robert E., and Anne O. Krueger, eds. (1984), *The Structure and Evolution of Recent U.S. Trade Policy*, Chicago: University of Chicago Press for the National Bureau of Economic Research.
- Bergsten, C. Fred (1982), "The Dollar, The Yen, and U.S. Trade," statement before the Subcommittee on Trade, House Ways and Means Committee, processed, Nov. 30, 1982.
- Bergsten, C. Fred, and John Williamson (1982), "Exchange Rates and Trade Policy," forthcoming in Cline (1983).
- Bhagwati, Jagdish N., ed. (1982), *Import Competition and Response*, Chicago: University of Chicago Press for the National Bureau of Economic Research.
- Blackhurst, Richard, (1981), "The Twilight of Domestic Economic Policies," *The World Economy*, 4 (December), pp. 357-73.
- Blackhurst, Richard, Nicholas Marian, Jan Tumlrir (1977), *Trade Liberalization, Protectionism, and Independence*, GATT Studies in International Trade No. 5, Geneva: General Agreement on Tariffs and Trade, November 1977.
- Bluestone, Barry (1983), "Economic Turbulence: Capital Mobility vs. Absorptive Capacity in the U.S. Economy," processed, May 1983.
- Bradford, Colin I., Jr. (1983), "The Newly Industrializing Countries: Growth and Prospects," processed, June 1983.
- Brander, James A., and Barbara J. Spencer (1982a), "Tariff Protection and Imperfect Competition," forthcoming in Kierzkowski (1983).
- _____ (1982b), "Export Subsidies and International Market Share Rivalry," presented at a Nov. 5, 1982, National Bureau of Economic Research Program Meeting on Trade Policy, Technology, and Industrial Organization, Cambridge, Mass.
- Branson, William H. (1977), "Asset Markets and Relative Prices in Exchange Rate Determination," *Sozialwissenschaftliche Annalen*, Band 1, pp. 69-89, reprinted as Reprint No. 20 by International Finance Section, Princeton University, June 1980.
- _____ (1980), "Trends in United States International Trade and Investment," in Martin Feldstein, ed., *The American Economy in Transition*, Chicago: University of Chicago Press for the National Bureau of Economic Research.
- _____ (1981), "OPEC Lending, LDC Growth, and U.S. Trade," National Bureau of Economic Research Working Paper No. 791, November 1981.
- _____ (1983a), "Data Analysis of U.S. Capital Goods Exports," draft working paper, processed, May 2, 1983.
- _____ (1983b), "Industrial Adjustment in the U.S. Since World War II," processed, May 26, 1983.

- _____ (1983c), "Macro Policy for Recovery and Growth," processed, June 28, 1983.
- Branson**, William H., Gene M. Grossman, and J. David Richardson (1983), "Strategic U.S. Trade Policy: An Outline of Early Analysis and Issues," National Bureau of Economic Research, tentative *Research Progress Report*, in process.
- Branson**, William H., and J. David Richardson (1982), "Openness, Industrial Structure, and United States Trade," processed, December 1982.
- Camps**, Miriam, and William **Diebold**, Jr. (1983), *The New Multilateralism: Can the World Trading System Be Saved?*, New York: Council on Foreign Relations.
- Carroll**, Geoffrey S. (1982), "Multinational Reshuffle," *Europe* 231 (May/June), pp. 12-15.
- Cassing**, J.H., A.L. **Hillman**, and N.V. Long (1982), "Income Variability and the Social Consensus for Tariffs," processed, June 1982.
- Caves**, Richard E. (1960), *Trade and Economic Structure*, Cambridge, Mass.: Harvard University Press.
- Cline**, William R., ed. (1983), *Trade Policy in the Eighties*.
- Corden**, W.M. (1980), "Relationships Between Macroeconomic and Industrial Policies," *The World Economy*, 3 (September), pp. 167-84.
- Corson**, Walter, Walter Nicholson, J. David Richardson, and Andrea Vayda (1979), *Final Report: Survey of Trade Adjustment Assistance Recipients*, a report to the Office of Foreign Economic Affairs, Bureau of International Labor Affairs, U.S. Department of Labor, from **Mathematica** Policy Research, Incorporated, December 1979.
- Deardorff**, Alan V., and Robert M. Stem (1982), "The Effects of Exchange Rate Changes on Domestic Prices, Trade, and Employment in the U.S., European Community, and Japan," forthcoming in International Economic Association, *Structural Adjustment in Trade Dependent Advanced Economies*.
- _____ (1983), "Current Issues in U.S. Trade Policy: An Overview," presented at a March 17, 1983, meeting of the Aspen Institute's project, **Governance in a World Economy**, Washington, D.C.
- Diamond**, Peter A. (1982), "Protection, Trade Adjustment Assistance, and Income Distribution," in Bhagwati (1982).
- Dixit**, Avinash (1980), "The Role of Investment in Entry-Deterrence," *Economic Journal*, 90 (March), pp. 95-106.
- _____ (1983), "International Trade Policy for Oligopolistic Industries," Princeton University, Woodrow Wilson School, Discussion Paper No. 48, May 1983.
- Dore**, Ronald P. (1982), "Adjustment in Process: A Lancashire Town," in Bhagwati (1982).
- Dornbusch**, Rudiger (1976), "Expectations and Exchange-Rate Dynamics," *Journal of Political Economy*, 84 (December), pp. 1161-76.
- Eaton**, C., and R. Lipsey (1980), "Exit Barriers as Entry Barriers: the Durability of Capital as a Barrier to Entry," *Bell Journal of Economics*, 10 (Autumn).
- Eaton**, Jonathan, and Gene M. **Grossman** (1981), "Tariffs as Insurance: Optimal Commercial Policy When Domestic Markets Are Incomplete," National Bureau of Economic Research Working Paper No. 797, November 1981.
- Eichengreen**, **Barry** J. (1983), "The Simple Analytics of Dumping," **Harvard** Institute for Economic Research Discussion Paper 943, March 1983 (revised).

- Federal Reserve Bank of Chicago (1980), *International Letter* No. 425, July 4, 1980.
- Feenstra, Robert, and Kenn Judd (1982), "Tariffs, Technology Transfer, and Welfare," *Journal of Political Economy*, 90 (December), pp. 1142-65.
- Feldstein, Martin (1983), "The Dollar and Exchange Market Intervention," remarks before the French Institute of International Relations, processed, April 27, 1983.
- General Agreement on Tariffs and Trade (1982), *International Trade 1981/82*, Geneva: GATT.
- _____ (1983), "International Trade in 1982 and Current Prospects," GATT Press Release (GATT/1333), March 4, 1983.
- Gilpin, Robert (1977), "Economic Interdependence and National Security in Historical Perspective," in Klaus Knorr and Frank N. Trager, eds., *Economic Issues and National Security*, Lawrence, Kan.: Regents Press of Kansas.
- Gray, H. Peter, Thomas A. Pugel, and Ingo Walter (1982), *Employment, Trade, and North-South Cooperation, United States Study*, processed February 15, 1982.
- Grossman, Gene M. (1981), "Partially Mobile Capital: A General Approach to Two-Sector Trade Theory," processed, May 1981.
- _____ and J. David Richardson (1982), "Issues and Options for U.S. Trade Policy in the 1980s: Some Research Perspectives," National Bureau of Economic Research, *Research Progress Report*.
- _____ and Carl Shapiro (1982), "A Theory of Factor Mobility," *Journal of Political Economy*, 90 (October), pp. 1054-69.
- Helpman, Elhanan (1982), "Increasing Returns, Imperfect Markets, and Trade Theory," Harvard Institute of Economic Research Discussion Paper No. 921 (October), forthcoming in Ronald W. Jones and Peter B. Kenen, eds., *Handbook of International Economics*, Amsterdam: North Holland.
- Hufbauer, Gary Clyde, and Howard Rosen (1983), "Managing Comparative Disadvantage," processed.
- Keohane, Robert O. (1980), "The Theory of Hegemonic Stability and Changes in International Economic Regimes, 1967-1977," in Ole Holsti, Randolph Siver-son, and Alexander George, eds., *Change in the International System*, Boulder, Colo.: Westview.
- Kierzkowski, H., ed., *Monopolistic Competition in International Trade*, Oxford: Oxford University Press, forthcoming.
- Kindleberger, Charles P. (1981), "Dominance and Leadership in the International Economy: Exploitation, Public Goods, and Free Rides," *International Studies Quarterly*, 25 (2), pp. 242-54.
- Kostecki, M.M., ed. (1982), *State Trading in International Markets*, London: Macmillan.
- Krasner, Stephen D. (1976), "State Power and the Structure of International Trade," *World Politics*, 28 (April), pp. 317-47.
- Krueger, Anne O. (1981), "Interactions Between Inflation and Trade Regimes Objectives in Stabilization Programs," in William R. Cline and Sidney Weintraub, eds., *Economic Stabilization in Developing Countries*, Washington: Brookings Institution.

- Krugman, Paul R. (1982a), "Trade in Differentiated Products and the Political Economy of trade Liberalization," in Bhagwati (1982).
- _____ (1982b), "Technology Gaps, Technology Transfers, and the Changing Character of U.S. Trade," presented at a March 4-5, 1982, National Bureau of Economic Research Conference on U.S. International Trade Policy, Washington.
- _____ (1982c), "Import Protection as Export Promotion," processed, May 1982, forthcoming in Kierzkowski (198?).
- Lawrence, Robert Z. (1982a), "Growth, Trade, and the Global Trading System," Essay Number One, Appendix A, *Free Trade Goals in an Unfair World*, Report on National Science Foundation Grant PRA-8116455 from the Brookings Institution, processed, April 1982.
- _____ (1982b), "Trade Performance Patterns," Essay Number Two, Appendix A, *Free Trade Goals in an Unfair World*, Report on National Science Foundation Grant PRA-8116455 from the Brookings Institution, processed, April 1982.
- _____ (1982c), "Deindustrialization and U.S. International Competitiveness: Domestic and International Forces in U.S. Industrial Performance, 1970-1980," presented at an Oct. 19, 1982, Conference on the Political Economy of Inflation and Unemployment, Williams College.
- _____ and Lawrence B. Krause (1982), "Problems of Positive Adjustment: Do We Really Need A National Industrial Policy?" presented at the December 1982 American Economic Association meetings, New York.
- Lipsey, Robert E. (1982a), remarks at a March 4-5, 1982, National Bureau of Economic Research Conference on U.S. International Trade Policy, Washington, D.C.
- _____ (1982b), "Recent Trends in U.S. Trade and Investment," National Bureau of Economic Research Working Paper No. 1009, October 1982.
- Lipsey, Robert E., and Irving B. Kravis (1982), "U.S.-Owned Affiliates and Host-Country Exports," National Bureau of Economic Research Working Paper No. 1037, December 1982.
- Macdonald, David R. (1983), "A Washington Perspective on Strategic Behavior and Trade Policy," processed, March 17, 1983.
- Magee, Stephen P. and William A. Brock (1981), "A Model of Politics, Tariffs, and Rent-Seeking in General Equilibrium," processed, August 1981.
- Meade, James E. (1955), *Trade and Welfare*, London: Oxford University Press.
- Piekarz, Rolf, Eleanor Thomas, and Donna Jennings (1982), "International Comparisons of Research and Development and Government Policies," processed, presented at a Sept. 30/Oct. 1, 1982, American Enterprise Institute Conference on International Comparisons of Productivity and Causes of the Slowdown.
- Prescott, E., and M. Visscher (1976), "Sequential Location Among Firms With Foresight," *Bell Journal Economics*, 8, pp. 379-93.
- Revey, Patricia A. (1981), "Evolution and Growth of the United States Foreign Exchange Market," Federal Reserve Bank of New York *Quarterly Review*, 6 (Autumn), pp. 32-44.
- Richardson, J. David (1982a), "Trade Adjustment Assistance Under the Trade Act of 1974," in Bhagwati (1982).

- _____ (1982b), "Opaque and Transparent Trade Policy: Some Expectational Considerations," processed, February 1982.
- _____ (1982c), "Further Issues, Insights, and Options for U.S. Trade Policy," processed, March 1982.
- _____ (1982d), "Worker Adjustment to International Trade: Programs and Prospects," forthcoming in Cline (1983).
- _____ (1983), "The New Nexus Among Trade, Industrial, and Exchange-Rate Policies," National Bureau of Economic Research Working Paper No. 1099, March 1983.
- Shaked, Avner and John Sutton (1982), "Natural Oligopolies and International Trade," processed, June 1982.
- Spence, A.M. (1977), "Entry, Investment, and Oligopolistic Pricing," *Bell Journal of Economics*, 8 (Autumn), pp. 534-44.
- _____ (1979), "Investment Strategy and Growth in a New Market," *Bell Journal of Economics*, 10 (Spring), pp. 1-19.
- Spencer, Barbara J. and James A. Brander (1982), "International R&D Rivalry and Industrial Strategy," forthcoming in the *Review of Economic Studies*, October 1983.
- United States (1982), *Twenty-Sixth Annual Report of the President of the United States on the Trade Agreements Program, 1981-1982*, Washington: Office of the United States Trade Representative, November 1982.
- _____ (1983a), *Economic Report of the President*, together with the *Annual Report of the Council of Economic Advisers*, Washington: February 1983.
- _____ (1983b), *Economic Indicators*, Washington: Council of Economic Advisers for the Joint Economic Committee, 98th U.S. Congress, 1st Session, May 1983.
- United States Department of Commerce (1972), *Survey of Current Business*, 52:3, Washington: March 1972.
- _____ (1983), *Survey of Current Business*, 63:3, Washington: March 1983.
- United States Library of Congress, Congressional Research Service (1980), "Technology and Trade: Some Indicators of the State of U.S. Industrial Innovation," processed, April 21, 1980.
- Vernon, Raymond (1977), *Storm Over the Multinationals*, Cambridge, Mass.: Harvard University Press.
- _____ (1983a), *Two Hungry Giants*, Cambridge, Mass.: Harvard University Press.
- _____ (1983b), "Old Rules and New Players: GATT in the World Trading System," processed, May 11, 1983.
- Vernon, Raymond and Yair Aharoni (1981), *State-Owned Enterprise in the Western Economies*, London: Croom Helm.