

PREFACE

This book on United States-Soviet economic relations was a long time in coming. Our late father began writing in the late 1970s, as a project for the Twentieth Century Fund (now known as The Century Foundation). For a variety of reasons, the work was never published.

Our father finished it, but he became so involved with the issue that most occupied him for the rest of his career, the CIA's overestimates of Soviet military expenditures, that he never got the book published.

Our father quit working in 1995, to devote himself full time to our mother, who had become quite crippled from multiple sclerosis. After our mother was hospitalized, in September, 1999, with an illness that led to her death the following June, Dad rediscovered the manuscript, and was pleased with much of what he had written. Although he was not prepared to update the analysis to cover the 1980s and 1990s, he felt that it had merit as a historical work, and he began to revise it accordingly. Unfortunately, in the fall of 2000, he suffered a stroke, which ended this effort; fortunately, he had accomplished much of what he had set out to do.

After his death in 2002, we consulted some of his colleagues about the manuscript. They suggested publishing it as an e-book, and so we are pleased to present it in this form.

We thank the Twentieth Century Fund for its generous support of the initial manuscript. We also thank his dear friends and colleagues in the Soviet field who have supported our endeavor. In particular, we are deeply grateful to Josef Brada of Arizona State University and Barney Schwalberg, emeritus professor at Brandeis University, for their unstinting help in reading, editing, and otherwise getting the manuscript into shape. Without Joe and Barney, it could not have happened. Robbie Brada's help in getting the manuscript to this point was also invaluable. Finally, we note that any errors are either our father's or ours in attempting to decipher the manuscript.

Thomas Holzman, David Holzman, Miriam Meyer

**THE ECONOMICS AND POLITICS OF INTERNATIONAL TRADE
AND FINANCIAL RELATIONS BETWEEN
THE UNITED STATES AND CZARIST & SOVIET RUSSIA,
1800 — 1980**

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Chapter I: Introduction: Trade, Politics, and US-Soviet Trade Policies

Trade and Politics

The Red Army marched into Afghanistan on December 24, 1979. The United States reacted quickly and decisively. In retaliation, the Carter Administration took a number of steps, reversing to an extent, the trend toward gradual liberalization of economic and other relationships which had resulted from detente. Controls over exports of high technology were tightened. Soviet contracts for some 17 million tons of imports of American grain to cushion the blow of the disastrous 1979 harvest were summarily canceled. Occidental Petroleum's annual one-half billion dollars worth of phosphate fertilizer exports to the USSR negotiated by Armand Hammer were embargoed and Hammer's agreement to import Soviet ammonia was put on a restricted quota. A sharp increase in US defense expenditures was announced. SALT II was put on a back burner, and perhaps most noteworthy, the US Olympic team was requested not to participate (and it did not participate) in the 1980 Summer Games in Moscow. Finally, attempts were made, in connection with these and other punitive actions, to obtain the cooperation of allied nations.

This turn of events was not unique. It represented only most recent fluctuation, in this case a downturn, in the irregular cycle of US-Soviet political relations since the 1917 Bolshevik Revolution. In particular, trade relations have followed closely the ebb and flow of politics. With the Soviet takeover in 1917 and withdrawal from War, the United States joined its allies in a total embargo on trade with the new communist state and even sent a military expeditionary force to the Soviet Union which remained on Russian soil for some time. While Soviet relations with the nations of Europe became slightly more amicable the 1920s, the United States, nevertheless, refused to recognize the USSR and, as a result, our trade with the USSR lagged behind that of other Western nations. Diplomatic relations were finally established in 1933 and, over the next 4 years, the US became the Soviet Union's main trading partner.

The Nazi-Soviet Pact marked the next political and economic downturn and Soviet trade virtually ceased. However, the German invasion of the USSR in June 1941 and Soviet entry into the War turned the cycle up again. During World War II, the USSR received approximately \$11 billion worth of Lend-Lease aid, second only to the United Kingdom. Once again the US became the Soviet Union's leading trade partner. This situation was again reversed with the Cold War. American trade controls, strengthened at the outbreak of the Korean War, caused trade and aid to the USSR and Eastern Europe to shrivel to virtually nothing. Our NATO allies very quickly resumed commercial relations with the Eastern nations but US-Soviet trade remained on a low level for a decade before slowly beginning to recover, a recovery impeded, however, by the Cuban missile Crisis, the Berlin Wall, the Vietnam War, Soviet invasion of Czechoslovakia, the Jackson-Vanik and Stevenson Amendments to the Trade Reform Act of 1974, and by President Carter's attempt to link trade to human rights in the USSR. So, in 1979, after 20 years of recovery, US-Soviet trade was still far below the levels that might have been expected if the United States and the Soviet Union had treated each other in East-West trade exactly as they treat other nations.

The final downturn of the cycle, initiated by the invasion of Afghanistan, stopped the upward trend in US-Soviet trade to less than half of its 1979 level. Whether it will remain stagnant is anyone's guess at this point in time. Much will depend on Soviet actions, if any, in the near future to restore the political status quo ante. However, even such a restoration is unlikely to reverse immediately the poor climate for economic relations. Having again experienced an abrupt and politically-manipulated reduction in trade and credit, no matter how justified from the US standpoint, the Soviets will undoubtedly be more reluctant than before to entrust future economic plans to potential US interruption, particularly where substitute supplies or markets are available. Also, the US administrations' stop-go tactics have been hard on American business, increasing risks and costs, and it will take a period of political quiescence to restore fully its confidence in trade with the USSR.

The ups and downs of US-Soviet trade and investment since World War II have been the direct result, primarily, of US policies though often indirectly, the real culprit to which the US has responded has been a military or political act by the USSR like Soviet intervention in Afghanistan. In fact, however, in the area of East-West trade relations, the USSR has tended to insulate its economic and political policies from each other more than the United States. US intervention in Vietnam, for example, did not interfere with Soviet pursuit of increased trade with the U.S. nor, in fact, did it impede progress on a SALT I agreement. Another indicator is the fact that during the early years of the Cold War, Soviet trade with NATO grew steadily whereas trade with the US stagnated at an extremely low level. Several factors would appear to be responsible for this difference in attitudes toward trade between the superpowers. First, US gains per dollar of trade with the USSR were undoubtedly less than those of the USSR with the US. Second, total US trade is much greater than total Soviet trade, hence mutual trade is a much smaller part of US than of Soviet trade. Third, the greater per capita GNP of the US makes it easier for us to forgo the relatively small gains from trade with the USSR. Finally, US policies are complicated by the complex nature of our domestic government and pluralistic society. For example, during the detente of the 1970s, trade between the two countries would have expanded rapidly after the US-Soviet Commercial Agreement had not the Congress undone this work by amending the Agreement in ways unacceptable to the USSR. The amendments, particularly the Jackson-Vanik Amendment which tied most-favored-nation treatment (MFN) to Jewish (and other) emigration, were introduced partly, if not primarily, for domestic political considerations, and were strongly opposed by the Administration. Policy differences undoubtedly exist in the Soviet Government also. But such differences are likely to be much smaller and less apt to surface in such unpredictable ways.

US Trade Policy Objectives

The ups and downs in the US-USSR economic relations have resulted, to a considerable extent, from political, economic and conditions. In periods of stress between the two nations, the US has been quick to limit trade and credit with the USSR, much quicker than would be the case with other Western nations under similar circumstances. Periods of stress unfortunately have dominated US-Soviet relationships and have had a predictable secular depressing effect on economic relationships. In the pre-World War II period, this was undoubtedly due primarily to the fact that, from the US point of view, the USSR represented much-

disliked alternative political and economic systems which are antithetical to our own and, in the eyes of some, represented an ideological threat to our democratic capitalist way of life. Almost as important to the population of a country like ours which views itself as "one nation under God," the official communist dogma has always been anti-religious and atheistic. Since World War II, stress between the US and USSR has been exacerbated by the facts that Soviet military power has been increasing rapidly now rivaling our own. Moreover communism has spread to other nations, often with (but sometimes without) Soviet help or intervention.

However, the dominant U.S. motive in applying trade controls, has been to limit Soviet military power. Even in periods of detente, sales to the USSR of weapons or of technology with possible military applications have been limited to levels below those allowed Western nations.

A related major motive for our trade restrictions has been to limit Soviet economic power. Limiting Soviet economic power by denying that nation gains from trade at times has been an end in itself as codified, for example, in 1962 in an amendment to the Export Control Act. Primarily, however, limiting Soviet economic power is viewed as a means of constraining Soviet military power. This is accomplished through two channels. First, by preventing the Soviets from developing specific kinds of know-how (e.g. miniaturization in computers), the US tried to make it more costly or impossible for them to achieve certain types of military capabilities. More generally, if Soviet economic growth can be slowed and/or the size of its GNP kept below what it would otherwise be with trade, fewer resources would be available for investment in the military sector.¹

In addition, US Government has also used weapons of economic warfare against the USSR in various ways to implement human rights and other foreign policy objectives. For example, in the early 1930s, imports of products (e.g., crabmeat, lumber, furs), suspected of having been produced by forced labor, were embargoed. The Jackson-Vanik amendment to the Trade Reform Act of 1974 tied the extension of most-favored-nation treatment (MFN) to the USSR and other communist nations to freedom of emigration. In 1978-79, President Carter applied selective export controls to various high technology products destined, for the USSR as a response to Soviet maltreatment of dissidents, notoriously the Sscharansky and Ginzburg trials. The invasion of Afghanistan in 1979, which represented, among other things, an invasion of human rights was met, of course, with strongly intensified trade controls as well as other measures. It is useful also to cross-classify the objectives of US trade restrictions in terms of the kind of direct or indirect impacts on the Soviet economy and its leaders that are desired or expected.

At least four objectives can be distinguished.

- (1) To maintain military superiority, by permanently applying more stringent controls over military-related exports to the USSR than to other nations.
- (2) To change Soviet behavior, using the threat of a restrictive measure or, where the restrictive measure has been applied, holding out a promise of its removal to encourage such a change--the so-called "linkage" approach.

¹The extent to which the Soviet economy can be hurt through trade denial is discussed in greater detail in Chapters IV and VII.

(3) To penalize or punish the Soviets for some action men by applying restrictions.

(4) To express displeasure or moral indignation in those cases in which we choose to take action but do not have enough leverage to exact a penalty by applying limited restrictions. Presumably, such actions indicate, more strongly than words can, the strength of our feelings.

While goals (2)-(4) are listed as though they were alternatives, they usually are not. Ideally, it is the hope of the Government to induce a reversal of an undesirable Soviet policy. Barring this possibility, the hope is to punish the Soviets or, at the very least, to express displeasure. Ex ante, we almost always try for (2) or (3); if these fail, we settle for (4) ex post. The invasion of Afghanistan is a case in point.¹ Initially, there were high hopes that the restrictions on grain and technology exports to the USSR would create serious problems, and perhaps even contribute to a Soviet withdrawal, for the Russians. However, it now seems clear that most of these problems were sidestepped by the Russians and the embargoed commodities were largely procured from alternative sources, albeit at higher cost. In many cases, US actions have amounted to a strong expression of displeasure or, at most, a mild penalty.²

Before leaving this section, it is worth noting that policies of "linkage" have been as prevalent in detente as in periods of great tension. In the mid-thirties and, especially, in the early and mid-1970s, the US relaxed its trade restrictions with the USSR in an effort to improve overall relationships with that country. Under these circumstances, trade played much more the role of the carrot than the stick.

A Critical Look at Policy Objectives and Methods of Implementation

Considerable differences of opinion exist in this country regarding the desirability of US-Soviet trade. On the one hand, there has always been a substantial group which is implacably opposed to the politics, economics, and anti-religious stand of the USSR. It believes that the differences between the two nations are irreconcilable and will eventually lead to conflict. Therefore, it opposes US-Soviet trade as a matter of principle and also because they believe that the Soviet Union gains more from trade with us than we gain from them thereby relatively strengthening them. Secretary of Defense, Caspar Weinberger seemed to fit this category when he argued ". . . that economic relations with Moscow should be treated as an extension of the military competition..." (NYT, 7/19/81, p. 10). At the other extreme is the relatively small group of political sympathizers which favor treating the USSR on equal economic terms with the rest of the world and who oppose all discriminatory restrictions on

¹ In the words of Secretary of State, Cyrus Vance; "Our first purpose is to impose a heavy price for this aggression --- because of our abhorrence of what is being done to the Afghan people and to deter similar activities elsewhere", U.S. Department of State, Current Policy, #144, March 3, 1980.

² Having used up most of our leverage in the Afghanistan episode, we had little left with which to threaten the Soviets for their support of the anti-Solidarity forces in Poland.

trade and credit. In between these polar groups, many differing views can be found regarding objectives and methods of implementation. In what follows, we will present some of the various conflicting positions taken on US-Soviet trade and trade restrictions and take a critical look at their rationales.

During the 1920's, in particular, but to some extent also during the first 15 years of the Cold War after World War II, hostile US trade policies toward the USSR could be partly explained simply as a matter of the principle of having as little as possible to do with a nation with policies and institutions so repugnant to our own. One might quibble with the political wisdom of such a policy or with the value judgments implied in the attitudes of those making the decisions, questions with which we will not be concerned here. In recent years, but also during the Cold War, the anti-trade group has viewed trade restrictions as a form of economic warfare which, as noted above, is assumed to hurt the Soviet Union more than the United States. A look at the aggregate data suggests that this assumption is correct. In 1979, a peak US-USSR trade year, exports + imports with the USSR amounted to approximately \$4.5 billion. This was about 0.2 percent of the US GNP of \$2.4 trillion and 0.3 percent of the Soviet GNP (in 1979 dollar prices)¹ of \$1.4 trillion. Assuming that the profit on each dollar's worth of trade were 50 percent, then the gains to the US would amount to 0.1 percent of GNP and to the USSR, 0.15 percent. These figures are trivially small. However, they do understate the difference in the gains between the nations because, as we demonstrate later, half of the \$4.5 billion in trade was comprised of US exports-Soviet imports of grain which were undoubtedly worth much more to the latter than to the former. Further, the Soviets, would like to import from us products which embody advanced technology, an exchange which also may well benefit them more than us.² Allowing for this asymmetry in gains per dollar of trade, do increased Soviet gains relative to ours strengthen the economic case for an embargo under hostile conditions. But even considering these issues, how strong a case is it anyway? Answering this question involves a "half-empty - half-full glass" problem. Does one stress the impact of the greater Soviet losses from a trade cutoff or does one stress the fact that the losses are still, quantitatively, relatively small? As noted, those who oppose trade with the USSR, for whatever reason, stress the Soviet losses. In the words of William Brock, the United States Trade Representative, referring to President Carter's trade policy reactions to the Soviet invasion of Afghanistan: "These restrictions were intended to demonstrate that Soviet actions which contravene international law and threaten U.S. interests would entail economic costs for the Soviet Union", (East-West Trade Report, April 1981, p. 4).

Those who favor East-West trade or who, for other reasons, oppose the use of discriminatory trade restrictions, may use the same set of economic data for different purposes. It can be argued, for example, that productive international economic relations breed economic interdependency. To the extent that nations are economically interdependent, the costs of hostilities are raised and this serves as a

¹Dollar prices substantially exaggerate the size of Soviet GNP for index number reasons. (cf. Chapter X). Hence, Soviet imports are probably closer to .4 or .5 percent of GNP.

²Soviet gains from trade and investment are discussed at length in Chapters IV, VII and XI.

deterrent. Many favor expanded trade with the USSR, not because of sympathy for that country, but because interdependence encourages peace by increasing the economic costs of a break-off of trade. It also, some would argue, encourages better personal relations among those engaged in trade relations at all levels, private and governmental, and this contributes to peace. Few would deny these positive spin-offs of trade relations. But are they quantitatively important enough to be an important integrating force in the face of strong military and political hostility? After all, in the past, nations with much closer economic ties have gone to war.

While the preceding two opposing positions are each based implicitly on the assumption of significant Soviet trade dependence, trade restrictions have been opposed by some simply on the grounds that the glass is "half-empty" i.e. that trade dependence is slight. They take the attitude that trade with the USSR is on such a small scale, that it is not worth the trouble to implement special trade controls. This argument is more likely to be made, of course, by those who favor trade in the first place. Those who strongly oppose trade might well want to use trade restrictions as a way of expressing displeasure, if nothing else.

Soviet trade dependence on the United States has thus far been considered in isolation from trade with the rest of the world. In fact, Soviet dependence on US trade depends not only on the percentage that US trade is of Soviet GNP or of Soviet consumption of particular products--which, as we have seen, is small--but also on Soviet ability to escape the impact of our trade restrictions by securing the same or similar products from third nations, east or West, or by adjustments to their internal economy. The United States was most successful in securing cooperation for its embargo efforts in the first post-war decade. This was due to its preeminent economic position as a supplier of almost all products at that time and to its ability to pressure Western European nations to go along with it. It is no longer so economically dominant and its ability to secure cooperation from its NATO allies and others regarding economic policies toward the eastern world has sharply declined. The most dramatic case in point during the Carter Administration was the ability of the Russians to get most of their shortfall in grain from third nations after President Carter announced the January 1980 US embargo, which followed the Soviet invasion of Afghanistan. At the same time our attempts to reduce Soviet imports of high technology products apparently met with little success. Also dramatic was President Reagan's failure to break up the cooperation between the USSR and the nations of Western Europe on the strategic Urengoi-Yamburg gas pipeline. The inability of the US to secure real cooperation in its economic warfare efforts against the USSR has two implications. First, its use of trade restrictions to either change or penalize Soviet behavior, has been ineffective or at least less effective than it could be with cooperation. Second, in contrast with our earlier assumption, the losses to the United States have been greater, absolutely,¹ than the losses to the USSR,² while third nations experience windfall gains at the expense of both.

A major thrust of this section so far has been to emphasize the relative unimportance of US-Soviet trade to the USSR. Nevertheless, anyone who has followed the events of the past few decades knows that the Soviet Union is

¹But, perhaps, not as a percentage of GNP.

definitely interested in mutual trade with the US. Moreover, there is an important historical event which demonstrates that the USSR was willing to make political concessions for improved trading and credit relationships with this country. Reference is to the US-Soviet Commercial Agreement of 1972. This Agreement promised them most-favored-nation treatment, expanded trade, and, unofficially, large credits. In return, the Soviets agreed, among other things, to (1) a settlement on the World War II Lend-Lease debt, a difficult concession since they considered US demand for repayment to be very unjust in light of the enormous cost to them of the War in loss of life and property; and (2) from the historical record, it is clear that they also agreed informally to much higher levels of emigration, particularly of Soviet Jews to Israel, than had been allowed before. These are not insignificant concessions. However, it may not be proper to attribute them entirely to Soviet interests in trade and credit but to view the Commercial Agreement as part and parcel of the flowering of detente which included other arrangements of interest to the Soviets including the SALT talks. The Commercial Agreement never did go into effect. US Senate ratification unilaterally changed both the political and economic terms (Jackson-Vanik and Stevenson amendments) of the Agreement in ways disadvantageous to the Russians. In short, the economic benefits were reduced, particularly the amount of credits which could be extended, and extension of MFN was legally tied to a satisfactory level of emigration as defined by the United States. However, this episode does tell us that the Soviets are willing to make some non-economic concessions for US trade and credits but that such concessions may be limited, even as the economic gains are limited.

The major risks of trade with, and investment in, the USSR raised by the trade restrictionists, as suggested above, are that this trade and investment will contribute to Soviet military and economic power. Other potential risks are also foreseen. It has been argued that with hostage physical capital sitting inside the USSR and hostage monetary capital on the asset side of the ledgers of our banks and businesses, then we may face either outright losses or the possibility of avoiding losses only by accommodating our foreign policies in ways inimical to our national interests. Related to this is the claim that the increased trade and investment in the USSR will generate a group of lobbyists--farmers, bankers, multinational firms, exporters in general--whose lobbying efforts may be exerted for policies similarly not in the U.S.'s national interest.

These arguments may be valid under certain conditions. They do assume, of course, that in any particular instance it is clear what the national interest is.

However, let us accept that assumption. The major question which must be raised is whether the pro-trade lobbying is, or is ever likely to be, quantitatively important enough to significantly affect national policies. President Carter was certainly not cowed by lobbyists when he forbade exports of grain and high

¹From having to pay higher prices elsewhere, delays in procurement, inability to purchase substitutes for all embargoed products, etc.

technology, not to mention opposing participation in the Olympic Games, in response to the invasion of Afghanistan. On the other hand, President Reagan did bend to farm bloc pressures when he lifted the embargo on grain (as promised in his presidential campaign), an act which was otherwise quite out of step with overall Administration policy toward the USSR. However, by the time Reagan made his decision, it had become clear that the USSR had found other markets in which to buy the grain denied them by the embargo.

One must not forget, of course, that while US exporters, importers, and other interest groups are lobbying for more trade with the USSR, other interest groups are simultaneously lobbying for trade restrictions. A major such group--the logical counterpart of the pro-trade group--is the so-called military-industrial complex. Now, it is hard to imagine US exports to and imports from the USSR totaling as much as \$10 billion in a year at 1980 price levels. In contrast, the United States spent \$115 billion on defense in 1980 of which \$30 billion was payroll and the remaining \$85 billion were primarily purchases of military equipment, etc. private sector. Those weapons producers, research establishments, and other private enterprises which are recipients of US military spending are clearly larger than the pro-trade group and are apt to be opposed to expansion of US trade with the USSR. This is because an atmosphere in which US trade and credits to the USSR might boom, in which MFN would be as extended, and so forth is not one conducive to a boom in defense spending. In a profound sense, there is compatibility between expanded trade and expanded defense spending as was illustrated by the area of Senator Henry Jackson of the State of Washington. As is well-known, the largest single enterprise in Washington State is Boeing, a very large producer of military aircraft. Senator Jackson naturally strongly supported greater defense spending and he was a leading opponent of increased US-Soviet trade, not to mention of SALT and detente in general.

Another problem with the US policy of applying trade and credit restrictions is that its focus tends to be short-run, not long-run. Once a restriction has been put into force, it cannot be used again to punish the other nation. Embargoing grain shipments had the potential of hurting the Soviets after Afghanistan only because grain shipments had not been previously restricted and the Russians were buying them from us to meet their shortfalls. By contrast the US had not granted them MFN and had severely restricted credits, the possibilities of penalizing the USSR by withdrawing MFN and access to credits did not exist. In the future, the Soviets will no longer be as dependent on us as they once were, having developed other sources of supply.

While our policies toward the Soviets tend to be short-run, we often view other nations' policies from a longer-run standpoint. So, we are currently worried that Western Europe, especially West Germany, will become too dependent on the USSR for its natural gas supplies and be vulnerable to Soviet economic warfare. This is, of course, a serious concern. In fact, fear of excessive US dependence on Soviet gas supplies was one of the reasons that the proposed US-Soviet liquid natural gas project didn't get off the ground in the 1970's. By analogy, it suggests that perhaps we ought to try to make the USSR dependent on us rather than forcing it to become independent of us as we have been doing. Certainly additional leverage could be generated by following such a strategy although it

seems doubtful that, without fuller cooperation from other Western nations, the difference would be very significant. Whether our trade policies should emphasize the short- or long-run strategy needs more systematic consideration than it has been given by US administrations.

Still another criticism of our trade restrictions has been that they have been used to achieve the wrong objectives. A case in point was the Jackson-Vanik amendment to the Trade Reform Act of 1974 which tied the granting of MFN to the USSR and other communist nations to increased emigration. There are at least four dimensions to this criticism. First, the use of trade for political purposes is considered by many, especially economists, to be inappropriate. There is good reason to want to depoliticize trade. Were trade not largely insulated from political currents, the gains to most if not all participants would be much less. The rules of conduct in international trade as spelled out by the International Monetary Fund and by the GATT are designed, in part, to reduce political interference with trade (Cooper, 1972-73).

However, while depoliticization of international trade is generally desirable, it would not be realistic to elevate it to a general principle. International trade, domestic production and trade, the market system, and so forth, are all means to the goal of greater output and welfare. While this goal is important, it is not an "absolute" and often must make way when it conflicts with other important internal and external goals such as economic security, right to survival, greater equality, military security, and so forth. Looked at from this standpoint, it would seem appropriate, in principle, for a nation to use trade as a bargaining chip to achieve other goals. Henry Kissinger held out the promise of more trade to the USSR to facilitate agreement on SALT I, a "linkage" which met little opposition in this country. In principle, the Jackson-Vanik amendment may be no different.

Some have argued, however--and this is our second point--that emigration is a matter of national internal policy and that by tying MFN to Soviet emigration policy, the US is interfering in internal Soviet politics, an interference which is viewed as inappropriate. This is a respectable argument. However, there is a cogent counterargument, namely, that in the present-day world, the importance of "human rights" places a limit on the sovereignty of nations over their own citizens. This view was behind both the UN economic sanctions against Rhodesia and the US embargo of arm sales to South Africa. Further, the United Nations has declared the right to emigrate to be a fundamental human right in a document to which the USSR was a signatory. These factors provide a strong basis for the legitimacy of linking trade and emigration.

Third, there is, as noted earlier, the question of the effectiveness of such a linkage. It is well and good to say that it is legitimate, in principle, to link trade and Soviet emigration. On the other hand, since such a linkage is an affront to national sovereignty as the Soviets (and many other nations) view it, there is strong question as to whether it could ever have been successful. While the increase in Soviet emigration before the Jackson-Vanik amendment was passed suggests that on an informal basis, the Soviets were willing to make human rights concessions for an improvement in trading conditions, the formal embodiment of this "linkage" in a piece of US legislation was clearly and predictably beyond their tolerance.¹

Fourth, the choice of emigration among all possible objectives to which we might have linked the Commercial Agreement package, must be questioned. While certainly a laudable objective, was it the one on which we should have used up so much of our limited economic leverage with the USSR? The fact that the choice of emigration resulted from a process of internal politics in which no alternatives were considered does not inspire confidence.

Finally, it should be recognized that while those Russians who are allowed to emigrate may benefit from a freer policy, there is evidence that those who applied for emigration and were not allowed to do so, have often been persecuted and had their careers and lives affected negatively. It is, therefore, not clear whether the balance of benefits from freer emigration has been positive or negative.

Four other criticisms have been leveled at our trade policies toward the USSR and Eastern Europe. First is the fact, alluded to earlier, that our policies are often significantly at variance with those of our NATO allies—being much more restrictive. These differences have created tensions between the US and the other major Western nations and have reduced the unity of posture toward the Eastern Bloc, a unity which certainly would have been politically desirable. The differences in policies appear to have, unfortunately, at least three fairly deep roots. Second, the nations of Western Europe do not perceive the Soviet threat as being as great and as imminent as the United States does. Second, and related, in the event of military conflict, Western Europe sees itself—and not the United States—as the primary battleground. This has led them, in contrast with the United States, to put more emphasis on accommodation and less on military buildup as a way out of conflict. Third, virtually all of the other NATO nations have a much greater economic interest in East-West trade than the United States does both in terms of markets for their industries and in terms of important sources of raw materials. So, for example, in 1979, US exports to Eastern Europe and the USSR were only .24 percent of GNP in contrast with: West Germany - 1.48 percent; Italy - .81 percent; France - .70 percent; and the UK - .52 percent. A restrictive trade policy toward the East is unquestionably more costly to NATO than it is to the US and also appears to them to be politically less desirable.

In support of its position, the United States might argue that should relations between the Blocs seriously deteriorate, the Soviets could exert considerable leverage on NATO threatening West Germany's and other NATO nations' (future) supplies of natural gas, default on more than \$50 billion dollars of debts, and so forth. NATO's response might be that interdependency works both ways--debt default would mean no further credits, natural gas cutoff mean would no more imports of machinery and equipment and technology, and so forth--and that these dependencies will act to deter a political break. This response might be convincing if the deterioration in political relations between

¹Other changes which occurred at that time also probably had a bearing on the Soviet decision to renounce the Commercial Agreement with the US.

the Blocs did not reach crisis proportions. There is no question, however, but that in a crisis, NATO would be at a much greater disadvantage than the Bloc. In the short-run, the Eastern nations, and especially the USSR, might make do without new credits and imports of industrial products more easily than Western Europe could do without projected supplies of Soviet gas.

Fourth, it has been argued that implementation of US controls designed to weaken the Soviet economy has been misguided. Effective implementation would dictate concentrating export controls on those commodities in which the USSR has its greatest comparative advantage and without regard to the military or non-military character of the products, the level of technology, and so forth being much more restrictive.

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Generally speaking, this criterion has been ignored. From an economic standpoint, the distinction between military and civilian products, for example, has little relevance as pointed out in 1964 to the Senate Committee on Foreign Relations by Prof. Thomas Schelling of Harvard University:

"Wheat shipments may have the same effect on military programs as jet engine sales. Wheat shipments may permit the Soviets to keep chemical industries oriented toward munitions rather than fertilizers; jet engine sales may permit the Soviets to allocate engineering resources to consumer goods rather than jet engines."

Schelling could have gone further and added that grain shipments probably save more in Soviet resources than shipments of most advanced industrial products because Soviet agriculture is relatively so inefficient--it is a sector of great comparative disadvantage (see Chapter IV). Yet, until President Carter embargoed grain shipments in 1980, such an embargo was never considered, at least publicly.

Economic warfare which attempts to weaken the military sector by weakening the economic sector is based implicitly on the assumption that the military sector does not have first claim on resources. In Stalin's time, this assumption would not have held--the people literally starved in the early 1930s so that industrialization goals (at that time a prerequisite for achieving military goals) could be met. Since the death of Stalin, Soviet leaders have been less free to pursue other goals at the expense of the household. Stalin exported grain in famine years; under less stringent circumstances, Khrushchev and Brezhnev have imported grain. Nevertheless, while there are greater constraints now on how much the population can be squeezed, the military sector still seems to have top priority. In the face of declining growth rates in the 1970s, growth in per capita consumption has decline] whereas, if the CIA is correct, growth in military expenditures has been stable at a high level and the share of military expenditures in GNP has increased. This suggests that the amount of resources committed by the U.S.S.R. to military objectives may not be strongly affected, if at all, by denial of the gains from trade.

Sixth, our restrictive trade policies have been criticized for not always being consistently applied. On the one hand, stronger restrictions are often applied against the socialist nations than against autocratic capitalist nations which may be equally guilty of human rights violations and other uncivilized behavior. Moreover, these same restrictions have not even been applied systematically against all socialist nations. For example, standards of emigration which are required for MFN under the Jackson-Vanik Amendment have been waived in the cases of Poland, Romania and the Peoples Republic of China, but not for the USSR, for no apparent reason but political expediency. Use of trade policies in these ways puts a hypocritical imprint on intentions which were originally highly moral and humanitarian.

Finally, we have indicated that where our economic warfare effort cannot significantly hurt the USSR, the US goal of last resort, so to speak, has been simply to use trade restrictions to express indignation with acts as well as words. Such actions certainly underline the seriousness of the US position. On the other hand, they may well convey an appearance of impotence, particularly when our policy makers insist, in face of evidence to the contrary, that we are punishing the transgressor (e.g., Brock's quote above). It would certainly be more effective to justify such acts (at least *ex post*) on moral grounds.

This sums up the major economic, and a few of the political issues relating to our trade policies with, and the use of trade restrictions against, the USSR. The economic aspects are dealt with in much greater depth throughout the rest of the book. Clearly, the direction of an appropriate trade policy with the USSR is a very complex matter with many economic and economic-political tradeoffs that are difficult to evaluate.

Trade, Economics, and Politics

Many of the changes in trade and in trade policies described above (section I) make headlines. Yet, mutual US-Soviet trade is only a few percent of Soviet trade and less than one percent of US trade. Such changes in policies would not make headlines if the US and USSR were ordinary nations rather than the two most powerful nations in the world representing, prototypically, two opposing political systems, and standing in an adversary military relationship to each other. This implies, as stated earlier, that changes in the international economic relationships between the two nations are largely a function of political and other variables. Yet this book, while not overlooking these latter influences, is primarily about the economics of US-Soviet trade and investment. Its justification is the impossibility of evaluating politically motivated changes in our policies, toward trade without understanding their impact on economic variables and it is the major purpose of this book to examine these matters.¹

¹Many of the issues discussed in this chapter are expanded upon in Chapter XI.

Chapter II: Soviet-American Trade Relations: Historical Background, 1800-1970

Russian-Soviet trade with the West, including that with the United States, falls naturally into six distinct time periods. First, there is the Czarist period--the more than a century before the Bolshevik Revolution of November 1917. This was followed, after a brief interlude in which trade virtually ceased, by renewed trade ties with the West and, particularly, by the granting of so-called concessions to Western businessmen to operate factories and mines in the USSR. The concessions flourished during the early and mid-twenties and were being phased out when the First Five Year Plan was put into operation in 1928. During the first two Five Year Plans (1928-1937), and especially during the first, Soviets imported very large amounts of machinery, equipment, technology and technological assistance from the West to expedite industrialization. This constitutes a third period. World War II brought on still another new relationship - Lend-Lease. Then, the first two decades of the post World War II period were characterized by the formation of a Soviet Bloc of nations with which the USSR conducts most of its trade and by "cold war" with the West, neither event conducive to East-West trade and, especially, to US-USSR trade. Detente constituted still another significant break with the past--for a sixth period. This book ends with detente, which will be discussed in Chapter XI

The grandiose military and diplomatic ambitions of the czars influenced Russia's trade with Western Europe well before the American colonies declared their independence. In the early eighteenth century, Peter the Great imported equipment and foreign technicians from Europe to implement his military policies.

The government encouraged the development of mineral resources and industry, not because it had a coherent policy of modernization, but simply because the czars were preoccupied with the arming, outfitting, and feeding troops. And, when Russian merchants began to trade with the new American nation in the late eighteenth and early nineteenth century, their major exports were just those commodities--iron, hemp, and sailcloth--in which the government had taken an interest because they were useful to the military. In return, the Russians bought, from the American traders, West Indian and Far Eastern foods and spices, and American tar, turpentine, cotton, and rice (Condoide, p. 69). The two nations exchanged ministers in 1809, and trade between them increased to \$6 million in 1811 despite the Napoleonic embargo. For the next twenty years, the volume of trade remained small but steady and trade relations were cordial. And, in 1832, Russia and the United States concluded a Treaty of Navigation and Commerce which was to remain in effect for the next eighty years. The treaty provided for most-favored-nation (MFN) treatment¹ with regard to tariffs and duties, the maintenance of commercial attaches and facilities, and the protection of the rights of their citizens on each others' territory.

¹The meaning of MFN treatment is explained in chap. 3, p.14.

Table II.1

US, Russian and World Trade, 1830-1897

<u>Year</u>	<u>1830</u>	<u>1840</u>	<u>1850</u>	<u>1860</u>	<u>1870</u>	<u>1880</u>	<u>1890</u>	<u>1897</u>
Value of world trade (\$bns. exports + imports)	1.96	2.75	3.8	7.2	10.5	14.5	16.8	18.5
of which : Russian trade (%)	6.8	5.7	5.0	3.2	4.7	4.3	3.4	3.3
United States trade (%)	5.4	7.2	7.8	9.1	7.5	10.2	9.1	9.8
Value of Russian trade (\$mns. Exports + imports)	134	158	192	230	494	629	566	618

Source: Harper, p. 11.

Note: A Russian scholar, P. Khromov (p. 205) claims that Russian trade constituted 3.7% of world trade in 1800, 3.6 percent in 1850, and "slightly less" than this in 1900.

During most of the nineteenth century, Russia's foreign trade increased steadily (see Table II.1) though more slowly than those of the world's other trading nations. This relative decline was undoubtedly due largely to the stagnation of the Russian economy which did not experience an industrial revolution until around 1885. The United States itself experienced great economic growth during the nineteenth century. As a result of this growth and the great reduction in shipping costs, both the value of its trade and its percentage of world trade increased rapidly. In 1850, the United States was ranked fourth and Russia fifth, in value of trade after England, France, and Germany; by 1897 the US had reached third place, while Russia had fallen to seventh (Harper, op. cit.).

Grain was Russia's most valuable export commodity. But between 1881 and 1894, grain prices declined by one-half (Pokrovski, 318) partly as a result of Russian and American competition for markets, and Russian trade suffered a slump. At this time Russia's other major exports were fats, flax, hemp, wool, furs, and lumber. Cotton and woolen textiles, thread, sugar, tea, cotton, and paint were its most important imports (Pokrovski, 248-251; Baykov, p.1). Both the United States and Russia were leading producers of the same agricultural commodities and, in 1897, the United States and Russia ranked first and second in the world, respectively in grain and meat production, and were competitors in these products on world markets. The United States, with a smaller population, produced 50 percent more grain and 100 percent more meat than Russia (Harper, pp. 67,73) and consequently had larger exportable surpluses of these products. Grain nevertheless accounted for almost one-third of Soviet exports for many years.

In their bilateral trade, Russian exports to America were only a fraction of one percent of total American imports while the United States exports to Russia constituted 5 to 10 percent of Russian imports. Russia depended heavily on the United States for cotton for its textile industry and for agricultural equipment; the American economy was not dependent at all on imports from Russia.¹

Pre-Revolutionary Russia: The Drive for Industrialization

In the mid-1880's, Russia began an intensive drive for industrialization and economic modernization which eventually expanded her role in international trade. At this time, Russia established some trade patterns with Western Europe and with the United States, that were to be repeated under Soviet rule. Czarist economic goals of rapid industrialization required the large scale importation of heavy industrial machinery. Russia imported three-quarters of its heavy industrial and automotive equipment from Germany, England and France. And in the absence of any extensive light industry, Russia also had to import consumer goods necessary to a growing urban population. As a result of extensive state-planned railroad construction, the Russians were able to export more raw materials. From areas in Russia that had previously lacked access to international markets, the railroads carried grains, valuable ores and timber to Russian ports now bustling with commercial activity. Timber exports by alone increased by 360 percent in the twenty years before World War I (Baykov, p. 3).

But the Russian industrialization effort was too extensive to be financed through agricultural and raw material exports alone; by 1913, the Czarist and municipal Russian governments owed almost five billion rubles² to foreign governments; in addition, private investors put an additional 2-1/4 billion rubles into Russian industry of which 89 percent was equity investment and the remainder bonds. The major creditors were France and Great Britain. The Czarist government had encouraged foreign investments, public and private, to develop its industries and mines and to finance the railroad network that was crucial to economic development. To gain the confidence of these investors, the Russians made a great effort to stabilize their prices and currency and, in 1897, went on the gold standard. In support of this move, they imported (net) almost fourteen hundred million rubles of gold bullion between 1888 and 1914.

Direct trade with the United States remained small in the two decades before World War I (with the exception of the last few years when it almost doubled). Russia had always (and still does) run a large deficit with the United States, and although this deficit should have been no barrier to further trade in

¹The major transaction between the two nations in this period was the purchase of Alaska which, at the time, appeared to be a worthless piece of Arctic land. During the Crimean War the Russians feared that they would be unable to defend the area from British attack. Although neither country knew about the territory's economic potential, the US Secretary of State William Seward, foresaw it might be of strategic importance. Our good relations with Russia enabled him to purchase the territory in 1867 for only \$7.2 million (equivalent in 1980s prices to perhaps \$30 million) although at the time most Americans regarded the sale as a diplomatic concession to the Russians and dubbed it "Seward's folly."

²Before World War I, 1 ruble = \$0.5146 or roughly 2 rubles to the dollar.

Table II.2

Direct Trade Between Russia and the United States

Year	Exports to US		Imports from US		Balance against Russia in millions of rubles ¹
	Millions of rubles ¹	Percentage of total Russian ² Exports	Millions of rubles ¹	Percentage of total Russian ² imports	
1894	2	0.3	46	8.2	-44
1897	3	.4	48	8.6	-45
1900	3	.4	44	7.0	-41
1903	5	.5	63	9.2	-58
1906	6	.6	46	5.7	-40
1909	11	.8	58	6.4	-47
1910	9	.6	74	6.8	-65
1911	13	.8	102	8.8	-89
1912	18	1.2	87	7.4	-69
1913	14	.9	79	5.7	-65

Source: Pasvolsky and Moulton, p. 157.

¹Over this period, the ruble was valued officially at \$.5146. It is worth noting that toward the end of this period, in particular, trade between the two nations might have actually been three times as large as the above figures indicate. This is because a large part of US-Russian trade was conducted through German and other middlemen and recorded in the trade of these other nations (Tuve, pp. 58-59).

²Since total US trade was 3 or more times as large as total Russian trade over this period, the percentage of US-Russian trade to total US trade was correspondingly smaller than the figures shown here for Russia.

the multilateral trading world of the time, the Russian government discouraged an expansion of imports which would have increased that deficit. Moreover, American firms often demanded cash from Russian importers and refused them the credit typically extended by other foreign exporters. Much of the trade between the two nations was conducted indirectly, by shipment through Great Britain and Germany. The slowness of this process and the distances involved made the goods extremely vulnerable to damage and further discouraged trade (Pasvolsky and Moulton, p. 158).

In the early 1900s, the Russians attempted to improve their trade and credit relations with the United States, by sending Russian Finance Minister Count Witte to America where he approached, among others, Jacob Schiff, J. P. Morgan, and

John Hays Hammond. A number of Russian-American ventures were projected including the construction of facilities, municipal improvements, and others. However, before any agreements could be signed, political relations between the two nations deteriorated to the point where all trade negotiations were stopped. The most important cause was widespread public outrage in the United States over Russian treatment of the Jews. The Jewish pogrom in Kishniev in 1903, as well as other and earlier acts of persecution had brought many Russian Jews to the United States (Williams, p. 42). As naturalized United States citizens, they claimed the right to passport visas to visit their homeland, a right formally granted to American citizens under the Commercial Treaty of 1832 (above). The Russians, claiming the Jews were undesirables, denied them visas. Influential leaders like Jacob Schiff pressed the American government to revoke the 1832 Treaty and, in 1911 they prevailed. (As we shall see in Chapter XI, the events surrounding this incident bear a great similarity to those connected with the well-known Jackson-Vanik amendment to the Trade Act of 1974.)

In any case, the American government and US private industry played a minor role in Russian industrial development. The International Harvester Company, with a capital investment of \$31 million, and Singer Manufacturing Company, with capital of \$26 million, were the major American investors with factories in Russia. In addition, The New York Life and the Equitable Insurance companies owned Russian insurance companies with capital of \$80.1 and \$18.5 million respectively, about ten percent of the foreign-owned life insurance properties in Russia (Fisher, pp. 94-95). These two companies also held close to \$35 million worth of Russian government bonds. According to Browder (p. 137), Americans held \$106.9 million worth of Russian bonds and \$336.7 million worth of property in Russia before the Revolution. Tuve (p. 54) on the other hand, estimated that Americans were responsible for a little more than \$60 million or roughly 5 percent of pre-1913 private foreign investment in Russia.

Russia's participation in World War I seriously damaged its economy. The Czarist government borrowed another \$3,950 million to finance its war effort. Great Britain held more than two-thirds of this debt; France another 20 percent. The United States played a small role in financing the Russian military effort. While private banks loaned the Czarist government more than \$150 million, and the US government loaned the Kerensky Provisional Government (which took power in March 1917) \$225 million (of which almost \$188 million was actually drawn),¹ this amount represented only 2 percent of US Treasury loans outstanding to foreign governments; the six other allied nations received much larger loans. Much of this credit was (Table II.3) designed to finance Russia's rapidly increasing payments deficit.

While the war raged in Europe, disrupting the economies and trade of the belligerents, American exports to Russia increased sharply, totaling almost 1 billion rubles in 1916. The American business community began to view the Russian market with renewed interest, hoping to replace Germany as the major exporter to Russia of manufactured products. An American International Corporation was organized in 1915, as a financial, trading, and holding company to encourage trade with Russia; it pursued this objective very actively. An American-Russian Chamber of Commerce was established in 1916 and, in 1917, the National City Bank established a branch in Russia--the first of its kind. Further efforts along these lines

¹Fisher, p. 91. Tuve (p. 68) says that the US granted credits of \$325 million of which nearly \$200 million were drawn.

proved fruitless as all trade ceased shortly after the Bolshevik Revolution of November 7, 1917. On January 21, 1918, the new Bolshevik Government annulled all loans made to the Russian governments before December 1, 1917, and, shortly thereafter, nationalized all private enterprise, domestic and foreign-owned. A new era in Russian trade relations had begun.

Table II.3

Russian Foreign Trade, 1913-1917		
	Exports (mns of rubles)	Imports
1913	1520	1374 +146
1914	956	1098 - 142
1915	402	1139 - 737
1916	575	2750 - 2175
1917	464	1966 - 1502
		-

Source: Condoide, p. 8.

The Russian Revolution and Foreign Economic Concessions, 1917-1928

The Bolshevik Revolution of November 7, 1917, brought Russia's international economic relations to a virtual standstill. The new communist state found itself confronted by a Civil War, a blockade set up by its former Western allies, and border clashes with small expeditionary forces sent by Great Britain, France, the United States, and Japan. By 1919, exports had virtually ceased and imports totaled no more than a few million dollars. By 1920, the economy was in a state of collapse brought on by the events just described as well as by inept internal economic policies. The economic results of this so-called period of War Communism were disastrous: by 1920 industrial output had declined to one-fifth of the 1913 level, agricultural output declined by 40 percent, the transportation system collapsed, and international trade virtually ceased (Table II.4). The people fled from the cities for food and safety. The population of Leningrad alone fell from two and one-half million to seven hundred thousand inhabitants.

Such disasters led to the temporary abandonment of War communism in 1921 and the introduction of the New Economic Policy (NEP). NEP represented a dramatic step backwards toward capitalism. While the major industrial enterprises and the transport system--the so-called "commanding heights"--were to remain nationalized, most small industrial and trading enterprises were denationalized and there was official encouragement of free enterprise in agriculture.

In support of this domestic reversal and in face of Russia's diplomatic isolation, Lenin offered so-called "concessions" to Western capitalists as a means of obtaining capital, skilled labor, and technology with which to help reconstruct the economy. These concessions were to expedite the central domestic goal of NEP, economic reconstruction, while providing a structure for the Soviet Union's greatly diminished and chaotic trade relations. While this policy of concessions was not of great importance to the general history of the period (other factors having influenced trade relations to a far greater extent) it does reflect the Russians' repeated reliance on

foreign investment and know-how to help implement domestic economic goals.

The idea of concessions had first been introduced at an All Russian Economic Congress in 1917 (Sutton, 1, p.6), but it had not been pursued with either much enthusiasm or success during War Communism. Given the allied interventions on Soviet territory, recent Soviet debt-repudiations and property expropriations, and Civil War, the time was clearly not ripe (Can, p.283). The first serious offer of concessions came on Nov. 3, 1920, in a decree issued by the Council of Peoples Commissars, offering economic concessions to foreign capitalists.

Table II.4

US-Soviet Trade, 1918-1927/28
(millions of dollars)

	<u>Total Soviet Trade</u>		<u>Trade with US</u>			
	<u>Exports</u>	<u>Imports</u>	<u>Exports</u>	<u>% of Total</u>	<u>Imports</u>	<u>% of Total</u>
1918	7	92	0.7	9.3	12.0	13.6
1919	0.1	3	0.0	0.0	0.0	0.0
1920	1	25	0.0	0.0	1.0	3.6
1921	18	183	0.0	0.0	35.0	19.2
1921/22	55	236	0.0	0.0	38.0	16.2
1922/23	117	129	0.4	0.4	4.0	3.0
1923/24	325	203	6.0	1.9	44.0	21.8
1924/25	503	630	25.0	4.9	176.0	27.9
1925/26	612	658	27.0	4.4	106.0	16.2
1926/27	702	621	20.0	2.9	127.0	20.4
1927/28	689	823	24.0	3.5	164.0	19.9

Source: Vneshniaia torgovlia SSSR, 1918-1966, Moscow 1967, pp. 8,12.

Note: Overlapping years are from Oct. 1 to Sept. 30. These data were originally presented in the Soviet source noted in ruble valuations of the 1960s. They were converted to dollars at the 1960's exchange rate of 1 ruble = \$1.1111.

Illustrating great ideological flexibility, the preamble stated that the Soviet Union was ". . .applying to the more highly developed industrial states for help in restoring through their technical and material assistance Russia's productive forces that have been undermined by the World War. . . ." (cited in Watstein, p. 17). The decree stated further that the recovery of the Russian economy could be ". . . increased many times over . . . by bringing in foreign enterprises to develop the natural resources of the USSR (Carr, p. 283). Foreign firms were assured that the concessions would be of a duration sufficient to make a profit; guarantees against nationalization or confiscation were promised. The decree contained a list of seventy-two possible concessions, mostly for the exploitation of mines and forests in Northern Russia and Siberia, but some for agricultural projects as well.

The decree came as a surprise to the people of Russia and the West. In defending his policy against the attacks of party ideologists, Lenin argued that:

Under concessions. . . the Workers' State leases certain mines, forest areas, oil wells, etc., to foreign capitalists, in order to get from them additional equipment and machinery which will enable us to accelerate the reconstruction of Soviet large-scale industry.

Payment of concessionaires in the form of high-valued products is undoubtedly a tribute paid by the Workers State to the world bourgeoisie; we do not seek to conceal the facts in the least but we must understand that it pays us to deliver the tribute if we gain thereby the recovery of our large-scale industry and a serious improvement in the condition of workers and peasants (cited by Watstein, pp. 19-20).

Concessions were offered to the West in several forms, some quite similar to the industrial cooperation agreements which have sprung up in Eastern Europe since 1965. The foreign companies typically provided capital, technology and management and received payment either in the form of royalties or profits. Some technical assistance contracts with Western enterprises were also concluded (Sutton, I, p. 8).

More than six months passed before the new policy bore any fruit. The very first concession was made to US company, the Sinclair Exploration Company, to drill for oil on Northern Sakhalin Island. The concession was of small importance at the time because the island was occupied by the Japanese (Carr, p. 353). In 1922, concessions were granted American companies, one to mine for asbestos in the Urals and one to mine coal in the Kuznetsk Basin (Carr, p. 432). According to one estimate, 224 applications for concessions were made in the year 1921/22 which only 18 were granted (Sutton, I, p. 9).

One major obstacle which impeded the Soviet concession program in the beginning was the fact that many of the concessions offered by the Russians were actually former Western properties which had been expropriated without compensation. The Western powers, especially the French and Belgian Governments which had lost the most, insisted on full compensation without which they refused to sanction a concession. The American Government took a similar position. In fact, throughout the twenties, the American Government maintained its aloofness to the USSR and refused to help American business which was anxious to get a share of this new market. The Russians, of course, refused to agree to compensation for, or restoration of, foreign owned property. In the words of Commissar of Foreign Affairs George Chicherin, "...no people is bound to pay the cost of the chains which it has worn for centuries..." (cited in Carr, p. 355).

The Soviet government granted its most important concessions to the petroleum industry. Assisted by foreign investment, Czarist Russia had been the world's leading producer and exporter of petroleum before World War I, producing close to 10 million tons a year (Gillette, 1973, p. 478). By 1920, oil production in the Soviet Union had declined to one-third of the prewar level. The number of workers in the oil fields had declined by 15 percent. Electrical power was rarely available and, due to lack of maintenance, production and transport equipment functioned poorly (Sutton, I, p. 17). The Russians were desperate for help; this industry was important to the domestic economy and to the Soviet Union's role in international markets. Many negotiations for assistance in the petroleum industry over the next few years foundered over problems relating to equitable treatment of expropriated owners of the properties in question, and only a few satisfactory

contracts were signed with a number of American (Sinclair, Barnsdall) and European firms which provided the Soviet oil industry with considerable technical assistance.

The Soviet government granted concessions in practically every sector of the national economy. However, by 1927, the largest number of these concessions was in manufacturing. Armand Hammer, the president of Occidental Petroleum, which currently has an enormous fertilizer (and other products) exchange agreement with the USSR, then had the concession to supply the USSR with pencils and other office supplies. The largest concessions were in the extractive industries. W. Averill Harriman, for example, mined and processed manganese ores in the Caucasus mountains.

The number of concessions ultimately granted by the Soviet government in all the economic sectors was small. Between 1921 and 1929, foreign governments made 2,670 applications for concessions in the Soviet Union (Kas'ianenko, 1972, p. 179). Sutton (p. 9) estimates that the Soviet Union granted 17 percent of these requests; Watstein's estimate (p. 23) was only 7.5 percent. In explanation of the high rejection rate, a Soviet authority stated that "...a major part of these proposals came from insufficiently solid firms or were concerned with matters of no interest to us." (cited in Ibid.). He claims that only one hundred and fifty concessions were granted between 1922 and 1927. Sutton (p. 9) identified well over three hundred during the same period.

The importance of the concessions to the Soviet Union's economic development in the 1920s has often been exaggerated (e.g., Sutton, I, p. 348). In fact, they accounted for a small percentage of the total Soviet production. In July 1927, when less than one hundred concessions were operating, the capital investment of thirty-nine of the largest concessions was estimated to have been \$30 million, less than one percent of the total capital investment in the related Russian industries.¹ Compared with a national non-agricultural workforce of 11 million, the twenty seven largest concessions employed fewer than 20 thousand workers, 10 percent of which were foreign. In 1928, the concessions reportedly produced an output valued at 85.6 million rubles, less than 1 percent of the output of the state industries (Condoide, p. 60; Nove, p. 89).

The NEP phase of Soviet development ended in 1928 with the launching of the First Five Year Plan on October 1. By that time, much of the Soviet economy had been renationalized and the attitude of the Soviet leaders accordingly had become less tolerant of foreign capitalism within its borders. A few new concessions were undertaken still, but as the 1930's rolled on, the number of operating concessions declined and only a half-dozen remained in 1936. The last two concessions--Japanese coal and fishing concessions on Sakhalin Island--were finally liquidated in 1944. Although interest in concessions declined, interest in importing capital and technology did not. Technical assistance contracts replaced the concessions and dominated the scene during the first two Five Year Plans. Before leaving the concession period, the minor role of the United States should be underlined. After World War I, the United States had emerged as the industrial equal of the leading nations of Europe. Yet, we did not share equally with Germany

¹Watstein, p. 23. A Soviet authority states that as of Oct. 1928, there were 68 concessions with foreign capital of 57.7 million rubles (Kas'ianenko, 1972, p. 179). According to the same author, US capital in concessions in 1928 amounted to 12.2 million rubles or 23% of the total (Kas'ianenko, 1964, p. 85). At this time the ruble was valued at approximately 2 rubles = \$1. According to Condoide, there were 59 concessions in operation in 1929 of which 13 were German, 11 were Japanese, 6 were American, and 5 British.

and England in the new Soviet market. Obviously, a major factor was the unwillingness of the US Government to establish diplomatic relations with the communist Soviet Government, an attitude not shared by the nations of Western Europe. In effect, our policies toward the USSR in the 1920s constituted a preview of the cold war policies we pursued in the 1950s and 1960s (below), policies which, in their intensity, differentiated us from our allies. And in both instances, political frost had its negative impact on trade relations between the two nations.

The Five Year Plans for Industrialization, 1928-1937

The First Five Year Plan for Industrialization (First FYP), inaugurated on October 1, 1928, was one of the most extraordinary efforts ever undertaken by a nation to transform itself economically. Again, the Soviet Union turned to foreign trade and investment as a means of expediting its ambitious goals of rapid economic modernization:

"In the years of the First Five Year Plan the task before us was to liquidate the hunger in technique, to liquidate... those 50-100 years by which old Russia lagged behind other countries..."

"...in the execution of the plan for socialist industrialization [it was necessary to] import the most finished equipment and neWest machines for the construction of 'giants,' for the organization of our own production of these very machines, to secure our technical-economic independence from capitalist nations..." (Mishustin (ed.), pp. 91, 95).

The volume of Soviet trade increased rapidly. Between 1929 and 1931 exports increased by 46 percent and imports by 62 percent; imports increased 150 percent between 1926 and 1931 (Holzman, 1974, p. 41). The structure of Soviet trade also changed radically. Imports of machinery and equipment, which amounted to only one-sixth of total imports in 1924/25, increased to one-third in 1929 and to nearly two-thirds in 1931 and 1932 (Mishustin, pp. 29,80). A good part of these imports were accompanied by management and technicians who supervised construction of plants and use of equipment in the early stages under so-called technical assistance contracts. Imports of consumers' goods, which had amounted to 28 percent of the total in 1924/25, declined to only 5 percent in 1931. Imports of producers' goods rose correspondingly, from 72 to 95 percent, (Holzman, 1974, p. 50). These great shifts in foreign trade structure complemented the truly revolutionary shifts taking place within the Russian economy at this time. The rate of investment rose from about 15 percent of the GNP to between 30 and 40 percent in the early 1930's. Agriculture was forcibly collectivized in 1929 and 1930, and the industrial labor force doubled between 1928 and 1932.

The extent to which the increase in imports contributed to the Soviet industrialization process is difficult to evaluate statistically. The Soviet Union imported the following percentages of all machinery installed in Soviet factories between 1929 and 1931: perforators--54.7; excavators--78.4; pumps--23.3; compressors--55.2; elevators--9.9. They imported nearly 50 percent of thirty-nine types of major machinery installed after 1929 (Mishustin, pp. 204-205).

In 1930, the following percentages of all machinery in use had been imported: turbines, generators, and boilers--89; metal-cutting machines--58.1; tractors -- 81.2; automobiles, buses, trucks--66.4; machine tools--66 (in 1932) (Holzman, 1974, p. 52). And in 1930 the Soviets imported almost all their aluminum, rubber, zinc, nickel, tin and lead, 38 percent of their copper, and almost 25 percent of their

ferrous metals. The commodities that were imported did not account for much more than 4 percent of the Soviet GNP over these few years and the Soviet Union's share of world trade remained small: 1.3 percent of world trade in 1929; 2.8 percent in 1931 (Mishustin, p. 53). But its share of particular commodities' markets, reflecting its emphasis on heavy industry was extraordinary: Soviet imports of machine tools rose from 9.4 percent of the 1929 world market to 68.2 percent in 1932; imports of tractors rose from 19.4 percent in 1929 to 90.5 percent in 193 (Mishustin, p. 169). These dramatic increases reflected in part, however, the decline in world trade as a result of the Great Depression.

To help finance these imports, the Soviets resorted to Russia's traditional export staple, grain. The goal of increasing grain exports was a major factor in Stalin's decision, in the fall of 1929, to accelerate the pace of collectivization of agriculture; and between 1929 and 1931 grain exports increased from 1.1 to 18.5 percent of total exports despite a reduced crop due to drought, in 1931. While the peasants went hungry, the government exported 10 percent of the grain crop in 1930 and 14 percent of that crop in 1931. And while grain remained the largest export, exports of other food products and raw materials also increased, in particular sugar, timber, petroleum, iron, and manganese ores, coal and furs. This draconian policy might not have been as necessary had the world market--and commodity prices--not begun to collapse in 1929. Soviet attempts to increase their exports to offset a decline in demand only led to a further drop in prices. The price of grain fell to roughly two-fifths of its pre-depression price. The prices of other food and raw materials also experienced sharp declines. The Great Depression sent all prices plummeting, but agriculture suffered the most: the Soviets were soon exporting between 30 and 40 percent more food and raw materials to pay for the very same volume of imports, thus raising the real cost of these imports and increasing Soviet foreign debt by 1931 to more than \$700 million (Condoide, p. 63).

The dramatic rise in the real cost of imports due to falling agricultural prices was only one reason (see below) why, after 1932, Soviet imports declined as dramatically as they had increased in the preceding years. By 1934, the volume of imports had fallen to 29 percent of the 1931 levels, while exports declined more gradually to 46 percent of the 1931 level by 1936. A state of near autarky prevailed. Imports, which in 1931 amounted to 4 percent of GNP constituted only .5 percent by 1937 (Holzman, 1974, p. 41). Imported machinery declined from 19 percent of total machinery in use in 1930 to 2.4 percent in 1933 to 1 percent in 1935. Imports of automobiles, buses, and trucks declined from 66 percent of the total being produced in 1930 to less than 1 percent in 1933. During the same period the Soviets reduced their imports of turbines, generators, and boilers from 89 to 19 percent of total in use. Imports of rolled ferrous metals declined from 23 percent of total used in 1931 to 2 percent in 1935. The Soviets achieved virtual self-sufficiency in the mining of zinc and aluminum. Even the commodity structure of Soviet imports in 1934/35 reflected this reversal in policy: imports of machinery and equipment declined from 54 percent of total imports in 1931-32 to about 23-1/2 percent in 1934-35 (Holzman, 1974, p. 49).

The counterpart of this decline in trade was observable elsewhere. By March 1933, 78 technical assistance agreements had been broken off because, presumably, of dissatisfaction with the projects (Kas'ianenko, 1972, p. 189), and most Western engineers had left the USSR by mid-1932 (Sutton, II, p. 343). This turnabout had its rationale. Having experienced large trade deficits in 1928, 1930, 1931 and 1932 which had to be financed through high interest rate credits, the Russians naturally

wished to reduce these debts as rapidly as possible.¹ In fact, large surpluses were achieved in 1933-35 and 1937 which, together with the sharp increase in gold production, practically eliminated the foreign debt by 1937. The Soviets were also motivated, as noted above, to reduce their dependence on foreign trade by the adverse shift in terms of trade which they faced as a result of the Great Depression. Having to pay much more (than before 1929) in exports for the imports they desired, they were highly motivated to reduce imports once having satisfied their most urgent needs.

Further, by 1932, the Soviets believed that they had imported more than enough machinery and technology to implement their domestic goals; the task was now to absorb the technology and learn to utilize properly the new machinery.

During the First FYP, despite the enormous increase in capital stock and introduction of new technology, labor productivity in industry did not rise; the industrial labor force was swollen with unskilled and disoriented peasants, many of whom had been forced into factories. It was during the Second FYP that the payoffs finally arrived in the form of large increases in productivity even though imports of technology had by this time fallen to a dribble. Under this set of circumstances, it is no surprise that Soviet spokesmen would announce that economic independence from the capitalist world was a major goal of their nation and was being implemented. As one writer put it, "Imports into the USSR. are planned so as to aid in quickly freeing the nation from the need to import..." (Mishustin, ed., 1938, p. 9).

One wonders, however, if such policies would have been announced so readily were interest rates on credit lower, terms of trade higher, and absorptive capacity greater! The volume of US trade with the Soviet Union tripled between 1929 and 1931 as US trade with the rest of the world declined with the Great Depression (Condoide, pp. 91, 94). During these years, the Soviet Union imported approximately 40 percent of all US exports of machinery and equipment: 77 percent of our tractors; 67 percent of our metal-cutting machines; 75 percent of American forging equipment; 96 percent of our locomotives; 31 percent of the plows and 25 percent of American mining equipment (Schmelev, p. 43). Of the 825 US firms that produced agricultural machinery, the Russians imported goods from 185 of these, while seventy US firms participated in the erection of the Stalingrad tractor-works (Kas'ianenko, 1964, p. 82).

Although the Soviet Union acquired some of this machinery and equipment through ordinary commercial purchases, technical-assistance contracts structured much US-Soviet trade. These contracts provided for the purchase of blueprints and patents, as well as equipment, consultation on projects, engineering and management personnel. Sutton claims that there were 6,800 foreign specialists including 1,700 American engineers, working in Soviet heavy industry in 1932. The Stalingrad tractor plant alone utilized the services of 730 Americans (Sutton, II, p. 11). Many US companies did make important contributions to Soviet industrialization in the early 1930s. In 1928, the Albert Kahn Co., the most famous American industrial architectural firm of that time, was approached by Soviet representatives to design more than \$2 billion worth of buildings which, according to Sutton (II, pp. 249-250) "...was nothing less than the First and Second Five-Year Plan of socialist construction...". This project represented more work than the Kahn Company had handled in its whole history; its Soviet staff was ten times larger than its American staff. Louis Kahn recounts:

¹Kas'ianenko (1964, p. 82) says that the interest charges were around 7-1/2%, not high by standards of the 1970's but very high at the time. He mentions "serious problems in foreign currency" (1972, p. 191) as an important factor in reducing the scope of foreign technical help at the end of the First FYP. He argues that it was not an attempt by the USSR to achieve autarky.

Major projects included the Stalingrad Tractor Plant around which the city grew, the Cheliabinsk Tractor Plant in the Ural Mountains, a truck plant known as 'Autostroy' in Moscow, a structural steel fabricating plant in Nizhni Tagail near Upper Solda in the Ural Mountains, and numerous others.

We were commissioned to head Soviet engineering organizations at Moscow, Leningrad, Kiev, Kharkov, Sverdlovsk, and other locations.

Our Program entailed the design and construction of some 570 plants, the equipping of these plants, and supervisory training of Russians to build and design them" (Heymann, pp. 50-51).'

The Soviets employed many other companies through these technical-assistance contracts: Ford, which was responsible for the construction of automobile, truck and tire plants; General Electric, which built dozens of electrification projects; and Hugh L. Cooper, which constructed the giant Dnieper Dam. Other well-known American companies which provided assistance included: American Can, Baldwin Locomotives, Baltimore and Ohio Railroad, Caterpillar Tractor, Deere and Company, Douglas Aircraft, Dow Chemical, Dupont, International Harvester, Koppers, Glenn L. Martin, Arthur McKee, Otis Elevator, Pennsylvania Railroad, Pratt and Whitney, RCA, Remington Rand, Seversky Aircraft, Sperry Gyroscope, Standard Oil of New York, and Westinghouse (Sutton II, appendix C).

Table II.5
US-Soviet Trade, 1929-1940

(millions of dollars)

	<u>Total Soviet Trade</u>		<u>Trade with US</u>			
	<u>Exports</u>	<u>Imports</u>	<u>Exports</u>		<u>Imports</u>	
			<u>Value</u>	<u>% of Total</u>	<u>Value</u>	<u>% of Total</u>
1929	804	766	37	4.6	154	20.1
1930	902	922	36	3.9	230	25.0
1931	706	962	20	2.8	200	21.1
1932	500	613	15	3.0	28	4.5
1933	431	303	12	2.8	14	4.8
1934	364	202	12	3.4	16	7.7
1935	320	210	23	7.2	26	12.2
1936	270	269	26	9.6	42	15.4
1937	328	254	25	7.7	46	18.3
1938	255	272	17	6.6	77	28.3
1939	115	186	16	14.1	57	30.7
1940	266	273	21	8.0	85	31.0

Source: Vneshniaia torgovlia SSSR, 1918-1966, Moscow 1967, pp. 9-13. See notes to Table II.4.

US-Soviet Diplomatic Relations in the 1930s: Their Impact on Trade

In the early 1930's, official Soviet trade policy towards the United States was to use technical-assistance contracts to help achieve the primary economic goal of constructing an industrial base in the shortest possible time. However, refusal by the United States to grant diplomatic recognition to the Soviet Union until 1933 prevented the development of any official US economic policy vis-a-vis the Soviet Union, despite the important effect Soviet-American trade was already having on Soviet industrial development. Had the US Government adopted a friendlier attitude, our traders might have totally dominated Soviet trade in this period. Then, as now, the USSR looked to the US as its model of industrialization. Not only were we already the leading industrial nation technologically, we were also the only nation in the world suited to the kind of large scale production appropriate to the Soviet Union and to which they aspired.

The Soviet Union had much to gain economically and politically from reestablishment of diplomatic relations with the United States. The Russians needed foreign currency desperately; they needed credits; they needed markets for their gold and their goods. Lack of formal diplomatic relations stood as a roadblock. The US would not allow the Soviet Government to float securities in the US, to issue loans secured by Soviet property, and it discouraged the extension of loans to any US bank or enterprise which extended trade credits to the USSR (Condoide, pp. 80-83). Without government guarantees, extension of credit was a much higher risk. Further, we embargoed purchases of Soviet gold claiming it had been illegally confiscated during the Revolution. Finally, the USSR was hampered by not having the advantages of MFN status.

After 1931, the Soviets wanted recognition also as a means of getting an ally against Japan. In September of that year, Japan invaded Manchuria and in doing so revived Soviet fears of invasion of its Far Eastern Maritime Provinces.¹ The US, having opposed Japanese expansionist interests in the Far East, now viewed the USSR as a possible ally. Anxious for recognition, the Russians gave the US promises of a debt settlement and large export markets but these did not impress President Hoover (Browder, p. 40). The attitudes of the new President, Franklin Roosevelt, and his Secretary of State, Cordell Hull, were more flexible. Given Japan's expansionist policies and Germany's resurgence under Hitler, Roosevelt considered expanding US relations with the Soviet Union. In his Diaries, Hans Morgenthau stated "...that the continued isolation of Russia might destroy Roosevelt's hopes of preventing war through the collective moral sense of the nations of the world" (quoted in Browder, p. 108). And in October 1933, Roosevelt invited the Soviet government to enter into negotiations in an effort to improve diplomatic relations. Soviet President Kalinin immediately accepted.

The major obstacles to American recognition of the Soviet regime, apart from the issues of religious freedom for American citizens living in the USSR and Soviet propaganda activities in the United States, were the liability for the debts incurred by the Czarist and Kerensky governments, and the properties expropriated by the Bolsheviks. The United States claimed that the Soviet Union owed to them: \$187.7 million drawn on a loan which had been granted to Kerensky's Provisional Government; \$106.7 million worth of repudiated Czarist bonds; and \$336.7 million in confiscated American properties (Browder, pp.135-137). The Soviets argued that Admiral Kolchak and the White counterrevolutionary forces had absconded with

¹As a counter to Japan, diplomatic relations were soon resumed between the USSR and China and a Sino-Soviet Pact was signed in Dec. 1932.

much of the Kerensky loan and they presented counter-claims for damages allegedly inflicted by the American expeditionary forces in Northern Russia and Siberia after the Revolution. The United States eventually reduced its demands to \$150 million; the Soviets then agreed to pay \$100 million on the condition that the US immediately extend to them \$100 million in short-term credits and \$100 million in long term loans.

The Soviets also agreed to extend freedom of worship to all US citizens residing in Russia and to refrain from engaging in propaganda activities in this country. The United States established the Export-Import Bank to facilitate Soviet-American trade and removed the embargoes which had been placed on goods alleged to have been dumped or produced by forced labor; while agreement had still not been reached on the debt issue the United States granted recognition to the Soviet Union in December 1933.

The Russians had gained their major objective, diplomatic recognition. The issue of the debts owed the United States was, in fact, never settled. Such a settlement might have brought forth even larger claims by the other European nations which had granted the Soviet Union recognition without a debt settlement. Therefore, the Soviet Union stalled for as long as possible. Then, while Soviet-American negotiations were still in progress, the Depression brought the whole international debt payment system to a state of collapse; every nation, except Finland, soon defaulted on some part of its war debt/or international obligations. The United States, as the world's major creditor nation, responded to this crisis by passing the Johnson Debt Default Act of 1934 which forbade loans to any nation which was in default on its obligations to the United States. Thus, a loan to the Soviet Union was now ruled out, as were any further negotiations over past debts.

In 1934, the Soviet Union was admitted to the League of Nations, replacing Nazi Germany on the Council, and, over the next few years, their diplomatic relationships with England, France and Japan improved greatly, as did their trade relations with Great Britain. The United States signed a trade agreement with the Soviet Union in July, 1935. This agreement was renewed in 1937 at which time the Russians received MFN treatment for their exports, in return for agreeing to increase their imports of American goods annually. As a result of this agreement, the US became the leading exporter to the Soviet Union in 1937-38, a dubious distinction, because of the insignificant volume of Soviet trade at this time; in 1938 our exports to the USSR amounted to 28, percent of Soviet imports, but to only 2.3 percent of our total exports (Condoide, pp. 91-94). In 1939, our exports to the USSR still exceeded those of all other nations. As a result of the Nazi-Soviet Pact, Germany regained its primacy among Soviet trading partners in 1940.

Upon looking ahead to the post World War II period, many parallels with the thirties are evident. Among other things, there is the greater American (than European) aloofness toward the USSR, the outstanding debt issue, the interest in American technology and credits, and the religion issue. One major difference is the relative emphasis on economic and diplomatic objectives. In present day "linkage politics" terms, the USSR may be construed as having used economic bait in mid-1930s to obtain diplomatic recognition from the United States. Litvinov talked glowingly of billion dollar markets. The present situation, according to many observers, is one in which the USSR is willing to make political concessions for economic objectives (see ch. 11).

The Importance of Trade in the 1930's

A major question of interest is how important to the Soviet industrialization of

the 1930's were the imports of Western machinery, equipment, technology, and the services of engineers. The figures presented above suggest that trade with the West (especially with the US, Germany and the United Kingdom) had a substantial impact on Soviet development in the prewar period. Economic growth was, of course, extremely rapid in the prewar period, especially from 1928 to 1937. According to most Western estimates, Soviet GNP increased from 1928 to 1937 by approximately 6 to 12 percent (depending on how it is measured).

Sutton (II, p. 339) claims that "...Western technical assistance was the major causal factor in Soviet economic growth for the period 1928-1945." He correlates his estimates of the amount of technical assistance to various industries with their rates of growth. While he finds that growth and technical assistance do correlate fairly well (by simple inspection), it is not at all improbable that economic growth and amount of domestic capital investment would correlate just as well. Furthermore, just looking at specific industries tells us little about the growth of the economy as a whole.

In the aggregate, imports of producer goods do appear to loom fairly large in the First Five Year Plan period, at least. Estimates made by the author (Holzman, 1974, pp. 73-74) suggest that gross imports of machinery and equipment amounted to approximately 16 percent of gross investment in 1928, 13 percent in 1931 and 2 percent in 1937.¹

In order to gain a perspective on the importance to growth of these imports, it is also necessary to ask: What else might have contributed to the rapid growth at the time? Actually, growth of output can be viewed as resulting largely from a combination of increases in the quantity of, and improvements in, the quality of all factors of production--labor, capital, and resources.² Imports of Western machinery and technology served to improve the quality of capital and, as Western studies have shown, this is extremely important to long-run growth. How about these other factors? The Soviet labor force grew rapidly--by 2-1/2 percent a year (Brubaker, 1968, p. 304)--as a result of eliminating urban unemployment, reducing rural underemployment, and raising the labor participation ratio to unprecedented levels (mainly by bringing many more women into the work force).

In addition, labor was made more effective by shifting people from farms to factories. The capital stock also increased at unprecedented rates, by approximately 9 percent a year from 1928-1937 (Ibid.). This was implemented by extremely high rates of investment and low rates of consumption imposed on a poor and deprived population whose standard of living in 1937 was no higher (if as high) than in 1913 or 1928.³ Resource utilization also increased rapidly as evidenced by the sharp

¹The "gross import of machinery/gross investment" ratio should probably be adjusted upward slightly for the salaries of foreign technicians and direct purchases of know-how not embodied in actual machinery imports, and for the fact that gross investment is inclusive not only of machinery and equipment but buildings as well. Finally, of course, the full importance of the imports of machinery and equipment depend on the level of advanced technology embodied in them and the mass-production techniques to which some of them loaned themselves. It is impossible to add up in any precise way the effects of these various factors.

²This leaves out plant management, overall organization, and economies of scale, all of which may have had an important impact on growth.

³Growth in capital stock owed little to foreign assistance. Foreign assistance amounted to less than 3 percent of gross investment during the First Five Year Plan and was repaid during the Second Plan.

expansion in output of coal, iron ore, petroleum, and so forth. The quality of Soviet labor inputs was also increased (aside from the training received by Westerners). As a proxy, formal expenditures on education are estimated to have increased by almost 14 percent per annum in the 1928-1940 period (Ibid.). Finally, while improvements in the quality of the capital stock must have come mostly from the West, some were undoubtedly the result of indigenous development.

What does all this add up to? Economists who have attempted to put these data together by use of sophisticated techniques have generally concluded that the growth of the Soviet economy (both for the pre-and postwar periods) owes most to increases in the quantity rather than quality of inputs. As Moorsteen and Powell (p. 292) put it, (referring to 1928-1962 and with qualifications):...the dominant source of Soviet growth has been the increase in the quantity of productive resources employed.... The share of increased inputs in total growth appears to have been significantly in excess of one-half and may well have amounted to three-quarters or better...". The authors find this surprising in view of the extensive borrowings of technology. Two possible explanations are offered (p. 294): That the Soviet Union used borrowed technology inefficiently; and that the borrowed techniques were applied almost exclusively to industry, a relatively small sector of the Soviet economy in the 1930's.

These findings should be kept in mind in interpreting the recent interest in and flow of capital and technology to the USSR.

World War II and Lend-Lease

Although the United States did not enter the war until December, 1941, Congress had already enacted, in March of that year, the Lend-Lease Act, available which was designed to "lend" or "lease" to the allied nations available materiel they would need in their war against the Axis powers.

When Germany invaded the Soviet Union, Roosevelt immediately made the Soviet Union eligible for Lend-Lease (LL) aid, despite the opposition voiced by many groups in this country. The President extended aid to the Soviet Union because Nazism was the major enemy, and any nation which opposed Hitler should be aided. By the end of the war Russia had received more than \$11 billion worth of American supplies, less than Great Britain's \$21.6 billion, but considerably more than the amount received by any of the thirty other allied nations. As of July 1, 1945, the USSR had received \$9.1 billion worth of goods or 28 percent of total LL shipments (Condoide, p. 104). In fact, LL created the most intensive commodity flow from the United States to the USSR ever--a military-economic relationship of historical importance.

Exactly what contribution LL materiel made to the Soviet war effort is difficult to determine. The US considered its LL contribution to Russia to be an important one. Total LL expenditures amounted to approximately 15 percent of US war expenditures (Jones, 229); the supplies sent to the Russians amounted to from 3 to 4 percent of all US expenditures. This aid was, in fact, meant to implement Roosevelt's policy of "Russia First" (Herring, p.61). Roosevelt believed that the allied cause would benefit most from the strongest American support of the Russian front. In response to MacArthur's request in mid-1942 for more supplies to stem the deteriorating situation in the Pacific, Roosevelt replied:

"In the matter of grand strategy, I find it difficult this spring and summer to get away from the simple fact that the Russian armies are killing more Axis personnel and destroying more Axis materiel than all the other

twenty-five United Nations put together" (Herring, 61).

And this was the case. By May 1942, 182 German divisions plus another fifty Axis-
nation divisions were moving on the Russian front. At this time only twenty Axis
divisions faced the Allied Armies. Even after the Normandy invasion, the Russian
front engaged almost twice as many Axis divisions as the Western front (Istoriia, vol.
VI, p. 26). Three-quarters of all Axis losses, in personnel and materiel, were
sustained on the Eastern Front. As an element in military strategy, then, LL to the
USSR made very good sense.

Despite Soviet acknowledgment that LL facilitated its war effort, they claim
that the LL shipments were relatively insignificant compared to domestic Soviet
output. Then top planner, N. Voznesensky stated that LL amounted to 4 percent of
Soviet production, which seems to fit the facts as we know them, this figure has
been used in all official Soviet accounts of World War II (e.g. Istoriia, vol. VI, p. 48).
The Russians have also reported that LL deliveries of aircraft, tanks, and artillery
equaled, 12%, 10%, and 2% respectively of Soviet production (Ibid.). LL deliveries of
automotive vehicles may have been a greater percentage, however. While there is no
doubt that Lend-Lease aid alleviated suffering and facilitated the Russian defense,
its importance to the Soviet war effort must be qualified. First, in November, 1942,
the Red army mounted its counteroffensive at Stalingrad and, "military historians
agree that Stalingrad marked the turning point in Red Army fortunes during World
War II" (Jones, p. 232). This "turning point" was achieved before LL deliveries had
gained any momentum. Of the approximately 18 million tons of supplies received
from the United States by September 1945, no more than 2-1/2 million tons were in
Russia at this time' (Herring, p. 75). Secondly, besides enormous property losses and
civilian suffering, the Soviets lost between 20 and 25 million people during World
War II. [As many Russians died in the siege of Leningrad alone as all American
soldiers in all the foreign wars in American history until then.] This incredible fact
suggests that the backbone of the Soviet war effort was manpower, probably poorly
equipped and inadequately defended, rather than material. If we accept the Soviet
estimate that LL amounted to 4 percent of Soviet defense production, and if, for
example, the importance of manpower were equal to that of materiel, the role of LL
would be reduced to 2 percent.¹

It could be argued that the aggregative figures which appear to downgrade
grade LL are all well and good, but, in fact, it was the extra push of Lend-Lease--that
12 percent extra of aircraft, and 10 percent extra of tanks, etc.--which really swung
the balance and sped up the war. This is, of course, true in one sense--in the sense
of the argument of the preceding sentence which reflects a common American view--
but not true in another. It is not true in the sense that, quality considerations aside,
the, say, 12 percent additional aircraft received from the United States contributed
no more to the Soviet war effort than any other 12 percent of their domestically-
produced aircraft. In fact, one can attribute to LL no more of the credit for the Soviet
military performance than its percentage of the the total inputs into that war effort
(again quality considerations aside) without detracting from the credit which must
be imputed to all of those other inputs. LL was certainly very important at the

¹In fact, other things could be added to "war effort" such as losses due to scorched earth policies.
In fact, some Soviet authors have compared LL to total Soviet war losses (excluding manpower),
and by this count, the importance of LL diminished considerably. One estimate puts Soviet war
costs, defined as state expenditures + damages, at \$500 billion of which LL would be approxi-
mately 2 percent (Vnesh. torg., 1965, p. 293).

margins, but in the final analysis the total, not marginal, efforts must also be taken into account. The gasoline, without which an automobile cannot be driven, cannot receive all of the credit for the performance of the vehicle!

Finally, the preceding discussion concentrates on the relative importance of LL supplies to Soviet output and abstracts from the enormous role in victory played by the Red Army. The millions of soldiers in the manpower-intensive Red Army constituted a large part of the total Soviet effort against which the importance of LL must be measured.

Although LL ceased shortly after World War II, it left a legacy to plague, postwar US-USSR relationships in the form of a disputed and unpaid debt. Among other things, the unpaid LL obligation along with annulled pre-Soviet Russian debts, provided the basis, under the Johnson Act of 1934, for restricting credits to the USSR. When the Lend-Lease Act was passed Roosevelt did not clarify the repayment terms. But he did wish to avoid the political and economic repercussions that had accompanied the assignment and settlement of the World War I debts. He said that he wanted "...to get away from the dollar sign..." (Jones, p. 12) and he spoke vaguely of repayments in kind, such as guns and ships. The Master Agreement signed on June 11, 1942 with the Soviet Union stipulated that "final determination of the terms upon which the [USSR] ...receives such aid...should be deferred until the extent of the defense aid is known' and until the future discloses what mutual 'conditions and benefits' will serve to 'promote the establishment and maintenance of world peace'" (Jones, pp. 95-96).

As the war drew to a close it was decided by the US that no compensation would be asked for products used, lost, or destroyed during the war, nor would any combat equipment, delivered during the war, but not used, be returned. Compensation would be demanded of all LL recipients for useful civilian equipment left after the war and for all products which were contracted for before VJ Day and delivered after September 20, 1945. The British debt was set at \$895 million, or between 4 and 5 cents on the dollar, with the final payment due in the year 2005. In 1946, they were to receive a \$3-3/4 million loan and, within a few years, billions of dollars in Marshall Plan aid. The Soviets initially refused to provide the requested inventory. The United States then calculated, unilaterally, the civilian goods left in Russian hands at the end of the war to be worth \$2.6 billion, and asked the Soviets to pay \$800 million. The Soviets offered to pay \$240 million, then \$300 million. Negotiations continued until the Cold War brought all fruitful discussion of debt and trade between the two nations to an end. It was not until 1972, when, as part of détente, the Soviets signed the US-USSR Commercial Agreement, that they agreed to pay \$772 million over a twenty-five year period. This Agreement was annulled by the USSR in 1975 and payments, accordingly, ceased (see chapter 10 for details).

Many people felt then and feel now that the LL settlements, including that with the USSR, were very generous. The US asked repayment only for products which the recipients probably would have been willing to purchase commercially and which were in their hands at the end of the war—a relatively small part of total deliveries. Nevertheless, it is doubtful that President Roosevelt, had he lived, would have asked repayment. Cognizant of the mistake the United States had made in insisting on repayment of World War I debts¹, he said in 1943 "The Congress in passing and extending the Lend-Lease Act made it plain that the United States wants no new war debts to jeopardize the coming peace. Victory and a secure peace are the only coin in which we can be repaid" (quoted in Holzman, 1974, 206-207).

Needless to add, the Russians also agreed with this view on the grounds that their sufferings and their contributions to the common war effort were so much

greater than those of other allied nations.

¹The European position was succinctly put by Louis Marin with regard to World War I debts when he said to the French Chamber of Deputies in 1924:

"While war still raged, statesmen in every country appealed to the common cause. Some gave their ships, some munitions, some the lives of their sons, some money, and today only those who gave money come saying to us: 'Give back what we loaned' (quoted by Feis, p. 22).

The insistence of successive US administrations on repayment of LL was undoubtedly largely a political necessity--at least a token payment was required for Congressional approval, especially on LL to the USSR.

The prosecution of World War II was, effect, a communal effort, without markets or price tags. As Roosevelt put it with regard to World War II, "each... United Nation is contributing to the common struggle in full measure--whether in men, in weapons, or in materials. Each is contributing in accordance with its ability and its resources. Everything that all of us have is dedicated to victory over the Axis powers..." (cited by Holzman, 1974, p. 206). The difficulty with the World War II war debts, as with World War I, is that the one allied nation which gave up the least, in each case,¹ put a price tag (albeit a very low price) on that tiny part of the total communal effort represented by these shipments.

The essence of communal efforts is that the benefits accrue as "externalities"--to use the economists' jargon. Each nation, in fighting the common enemy, makes it easier for its allies. Without the Red Army, the burden on the Western allies would have been enormously greater. The reason why the US extended LL to the USSR (and to its other allies) was precisely because it knew, as Roosevelt's letter to MacArthur makes clear, that LL in the hands of the Russians would reduce our burden of fighting the Germans even more.

This was the repayment we really sought. Along these lines, we should have looked upon LL not as a "sale" to be repaid in money but as an "investment" in which repayment takes the form of saving American lives and reducing American suffering and war expenditures. The saving of lives and reduction of suffering cannot be put in dollars and cents, of course. Neither can we calculate the extent to which LL reduced our total war expenditures. However, to the extent that LL to the USSR simply sped up the war in Europe, the US saved about \$6 billion each month.² If the war was shortened by as much as 2 months, the savings were much greater than the total value of all LL shipments to the USSR. LL was certainly a profitable investment.³

While the USSR did not believe that it should have been expected to pay the US for any of the LL it received during World War II--and many believe that their position is well-taken--it is ironic to note that they are believed to have demanded payment from the Chinese for military supplies shipped during the Korean War (Goldman, 1967, p.).

¹Not only did the US give up the least in terms of casualties and destruction in World War II, it also ended the war with much greater productive capacity than it began it with--in contrast to all other belligerents.

²Our military expenditures in the last 2 years of the war were about \$7 billion a month; these had fallen to less than \$1 billion by the 4th quarter, 1946 (data from Survey of Current Business, US Dept. of Commerce).

³LL was, of course, also "profitable" to the Russians. Had the US not been involved in the World War II, the USSR would certainly have been willing to pay for LL. However, the US was in the war, and the relationship between them was, in my opinion, more appropriately viewed as communal.

The Coming of the Cold War

Even before World War II was over, the USSR was interested in continuing to receive American assistance in the postwar period and put out feelers in that direction. They were confident that Rooseveltian goodwill plus US need for markets to stave off the postwar depression, which they predicted, would result in generous loans. However, as victory over the Axis became a certainty, the harmony of interests which tied the two nations together in the heat of battle was disturbed by the development of conflicts of interest over many postwar issues, especially, Soviet policies in Eastern Europe. Averill Harriman, US ambassador to the USSR, and other Russian experts, advised using American aid and trade as a bargaining chip in the forthcoming discussions over the reorganization of Europe but no purposive foreign policy position on this issue emerged.

Between 1944 and 1947, the Soviets made three separate formal (and several informal) requests for post-war loans from the United States. In February 1944, Anastas Mikoyan proposed to Ambassador Harriman a \$1 billion postwar loan at 1-1/2 percent (Herring, 150). The Russians had reason to believe they would receive some American aid; in December at Teheran, Roosevelt had expressed his regrets to Stalin that they had not yet discussed the postwar reconstruction together (Williams, p. 274). But the US Government, as yet, had no firm policy regarding such loan requests and was significantly split regarding what to do. On the one hand, the State Department expressed doubts that the USSR could repay a loan larger than \$200 million; at the other extreme, the Treasury Department recommended a loan of \$5 billion. In fact, at the time, no loan could actually have been extended because the Johnson Act of 1934 forbade a loan to the USSR until it paid its World War I debts to the United States.

A second request--by Molotov for a whopping \$6 billion postwar reconstruction loan--was made in January 1945 (Herring, p. 150). Molotov, like Mikoyan, believed that when the war was over the US would need the USSR as a market to dispose of its surplus output and to help stave off another depression which Marxists everywhere (as well as others) predicted. The Truman Administration was much less enthusiastic than its predecessor about such loans particularly in light of recent Soviet activities such as not assisting the Warsaw uprising and Red Army occupation of Poland and Romania. The increasing certainty of allied victory furthercooled the sympathy of Truman and his advisors for Soviet problems.

Before any action was taken on the loans, the war ended. On May 12th, three days after VE Day, Leo Crowley, head of the US Foreign Economic Administration (FEA), ordered a halt to all Lend-Lease shipments to the USSR; all ships en route to the Soviet Union were to return without delivering their supplies. Crowley had misinterpreted an earlier decision which ordered a cut back on all shipments to the Soviet Union except those needed to prosecute the war in the Pacific. The State Department had not intended such an abrupt cutoff; the decision, in fact, applied only to new shipments. Although the order was rescinded within a few days, Soviet officials were angered, and became increasingly suspicious of American motives (Herring, p. 120ff)

American policy continued to exhibit a combination of skepticism and indecision. Soon after VJ day, at which time the United States announced the termination of LL, the Soviet Union made a third formal request for a loan, this time for \$1 billion to be repaid in thirty years. The lending authority of the Ex-Im Bank had now been increased to \$3.5 billion, and while many other nations had applied for aid, the Bank's officials were seriously considering such a loan. However, when

the FEA was dissolved, the State Department assumed many FEA functions including the processing of the Soviet loan request, and it was at this time that the Soviet request appears to have been "misplaced." Although the request was eventually "found," after President Truman at a press conference denied having knowledge of it, the incident has always been regarded with suspicion. When the issue of credits was reopened in the early months of 1946, the American attitude towards the Soviets had hardened further.

In February 1946, the State Department sent a note to the Russians informing them that extension of credit would now be considered as "one of a number of outstanding economic questions the settlement of which is necessary to provide a sound basis for the mutually beneficial development of economic relations between the United States and the USSR" (quoted by Herring, p. 261). Subsequent negotiations over the loan were rapidly deadlocked as the US side attempted to link it to broader issues. At the end of May, the United States extended a larger-than-expected loan to France that reduced Ex-Im Bank resources to a level that made the Russian loan technically impossible.

The year 1946 witnessed the opening hostilities of the Cold War. In March, Winston Churchill's speech in Fulton, Missouri, which described an "Iron Curtain" descending on Europe, met with much sympathy in this country. In March 1947, President Truman announced the Truman Doctrine, which extended aid to Greece and Turkey to prevent Communist takeovers in those countries, and declared this country's intention to oppose the emergence of any new communist regimes in Western Europe especially those given external (i.e. Soviet) support (Ulam, p. 125).

The Truman Doctrine declared the United States and the Soviet Union to be rivals; little possibility remained for a political alliance upon which expanded economic relations could be based.

Then, despite this fact, the United States extended an invitation to the Soviet Union to participate in the Marshall Plan. In his speech delivered at Harvard University in June 1947, Secretary of State George Marshall offered reconstruction assistance to the war-torn nations of Europe. His plan was designed to expedite their economic recovery and thereby also to stabilize the political situations in those nations (e.g., France, Italy, Greece) with strong indigenous Communist parties. The Marshall Plan was important to the emerging strategy of containment; the tactic of involving the Russians in its initial organization, even as a diplomatic gesture, seems, in historical retrospect, hard to believe. George Kennan, then in the State Department, said that, the Russians could "exclude themselves" if they wished but "we would not ourselves draw a line of division through Europe..." (Kennan, p. 342).

The Russian response was to accept our invitation to a preliminary meeting to be held in Paris at the end of June 1947. Molotov arrived accompanied by a large staff of experts, presumably prepared for serious business. However, his opening statement reiterated the dogmatic Soviet view that the United States had prepared this plan because it needed new markets to offset its approaching overproduction crisis (Ulam, p. 128). And then, on July 2, after forbidding the Poles and Czechs from participating further, Molotov left the conference and returned to Russia. Clearly, although the Russians wanted aid, they would not tolerate the degree of supervision and intervention in their domestic affairs that the Marshall Plan required of all recipients (The Economist, 7/5/47, p. 41). For its part, the United States was obviously not willing to dole out resources without some assurance that they would be used effectively. Countries were required to provide the Marshall Plan authorities with information justifying their proposed requirements of goods and to demonstrate that they were taking all possible steps to help themselves. While this

might seem perfectly reasonable to a donor nation about to give away billions of dollars in resources, it could look quite different to a nation just confronted by the Truman Doctrine, trying to develop its own bloc of nations, proud of its ability to plan its own economy by non-market techniques, and anticipating a capitalist crisis in the near future. In other words, the Russians viewed the Marshall Plan in the form in which it was presented as a slur on their national sovereignty and a way of exerting influence and control on the direction of development of the nations of Eastern (as well as Western) Europe. Thus ended the last attempt at some kind of economic rapprochement between the two powers before the Cold War began in earnest.

Cold War Trade Relations

The creation of a Soviet trading bloc, economically dependent on the Soviet Union, was a political goal of the Soviets as well as an economic one. While interested in maintaining its own trade ties with the West, the Soviet Union wanted to reduce trade between the rest of Eastern Europe and the West sharply and to substitute for that trade, its own. After 1946, trade did expand rapidly within the Soviet Bloc, particularly between the Soviet Union and the other Soviet Bloc countries, primarily because of the Russian political and military presence in these countries. Each year, Soviet trade officials met with other Bloc representatives and determined the trade flows for the next year. Russian economic and political goals soon structured the trade, in fact much of the economic development, of the other Communist nations. But the strong-arm tactics of the Soviets were aided by the trade barriers created by the United States, largely for political reasons, at the end of the decade. These barriers (below) caused a dramatic decline in East-West trade and a corresponding rise in intra-bloc trade which otherwise undoubtedly would have risen much more gradually. East-West trade as a whole declined from 6.4 percent of world trade in 1937 to only 1.3 percent in 1953 (Wilczynski, p. 52), while Soviet trade with Eastern Europe rose from roughly 5 percent of total Soviet trade in 1938 to nearly 60 percent in the early 1950s (Holzman, 1976, Ch. 3). But trade between the Soviet Bloc and those NATO countries which refused to adopt all the American trade strictures, declined much more gradually, and communist trade relations with neutral nations continued to expand. This is evidence that, although intended as a weapon against the Soviets in the Cold War, US and COCOM trade controls probably reduced East-West trade considerably below the point desired by the USSR thereby reinforcing CMEA trade ties and helping strengthen Soviet political domination of Eastern Europe.

The primary enabling legislation for trade controls was the Export Control Act of 1949. During World War II, all US exports had been subject to controls under wartime legislation. After 1945, various measures were adopted to control the export of commodities that were in short supply and were to be used to implement the Marshall Plan. Early in 1948, after the fall of Czechoslovakia, the Department of Commerce put most exports to Eastern Europe under licensing control (Berman and Carson, p. 1190). And in December 1948, a Senate Committee, in studying the problem of export controls, said that, "the national security aspects of our export control program are of transcendent importance, particularly in view of the present activities of the Soviet Union and its satellites" (Ibid.). On February 28, 1949, the Export Control Act announced America's new trade policy: export controls were to be used to "exercise the necessary vigilance over exports from the standpoint of their significance to the national security of the United States" (cited in Adler-Karlsson, 217), and that it is "...the policy of the United States to use its economic resources and advantages in trade with Communist-dominated nations to further the national

security and foreign policy objectives of the United States" (Ibid). All exporters would be issued one of two licenses. The general license allowed certain products to be exported to certain destinations without specific application by the exporter. Those wishing to export commodities on the "Commodity Control List" of the Department of Commerce, were required to apply for special permission, and then received a "validated" license. At the time the Act was passed, almost all the commodities that were exported to the Eastern nations were on this list. In 1951, at the height of the Korean War, all general licenses to the USSR were revoked.

Table II.6
Soviet Trade, 1938, 1946-70
(millions of dollars)

	Total		United States				Other Industrialized West			
	Exports	Imports	Exports		Imports		Exports			
			Value	% of Total	Value	% of Total	Value	% of Total	Value	% of Total
1938	255	272	15	6.5	77	4.2	174	68.3	98	35.9
1946	653	768	101	15.5	237	30.8	131	20.1	77	10.0
1947	770	744	79	10.2	110	14.8	188	24.4	133	17.9
1948	1307	1223	81	6.2	52	4.3	386	29.5	236	19.2
1949	1446	1488	49	3.4	26	1.7	230	15.9	324	21.8
1950	1793	1454	48	2.7	8	0.5	214	12.0	219	15.0
1951										
	2288	1989	27	1.2	.6	0	313	13.7	294	14.8
1952	2787	2504	18	0.6	.4	0	368	13.2	431	17.2
1953	2945	2766	17	0.6	.4	0	370	12.6	444	16.1
1954	3220	3179	16	0.5	.6	0	458	14.2	586	18.4
1955	3423	3057	23	0.7	.6	0	534	15.6	446	14.6
1956	3611	3609	28	0.8	4	0.1	587	16.2	596	16.5
1957	4377	3934	16	0.4	10	0.3	899	16.0	688	17.5
1958	4295	4345	27	0.6	4	0.1	676	15.7	652	15.0
1959	5445	5068	26	0.5	18	0.4	862	15.8	770	15.2
1960	5558	5623	24	0.4	60	1.1	990	17.8	1056	18.8
1961	5992	5822	24	0.4	51	0.9	1069	17.8	1067	18.3
1962	7024	6449	18	0.3	27	0.4	1119	15.9	1279	19.8
1963	7265	7052	24	0.3	28	0.4	1237	17.0	1396	19.8
1964	7676	7729	21	0.3	162	2.1	1291	16.8	1601	20.7
1965	8166	8050	34	0.4	64	0.8	1461	17.9	1569	19.4
1966	8841	7913	50	0.6	42	0.5	1605	18.2	1160	14.7
1967	9652	8537	41	0.4	60	0.7	1869	19.4	1213	14.2
1968	10634	9410	58	0.6	57	0.6	1979	18.6	1523	16.2
1969	11655	10327	52	0.4	105	1.0	2129	18.3	1821	17.6
1970	12800	11732	72	0.6	119	1.0	2046	16.0	2092	17.8

Source: 1938-1965, same as Table XI.5

1966-70 : Selected Trade...

There are minor differences between these two sources for years in which data are available in both.

In November 1949, at the instigation of the United States, the United States and seven nations of Western Europe institutionalized their plans for a common embargo policy by forming a "Consultative Group," with headquarters in Paris. This group formed a "Coordinating Committee," since called COCOM, which met regularly, but presumably informally, to discuss the list of goods banned from export to the East. The group began operations early in 1950, and its membership soon expanded to fifteen nations, including Japan. In 1951, the United States committed itself formally to COCOM by the passage of the Mutual Defense Assistance Control Act of 1951, better known as the Battle Act. This act forbade the United States from exporting strategic materials to Communist nations and provided that the United States may deny all military, economic, and financial assistance to any nation that permitted the export of such commodities to the socialist nations. Since the COCOM lists and the means to implement them were informal and not binding, the Battle Act provided the United States with a tool whose task was to "encourage" rather than to enforce. Substantial US foreign aid contributed to our allies' sense of obligation, and although many Western European countries resented American interference with their trade policy, in general, they at first complied with US wishes. Through the Consultative Group in Paris, the United States secured the cooperation of the most important NATO nations in the implementation of the embargo. The cooperation of Australia, New Zealand, and other British Commonwealth along COCOM lines was secured through Commonwealth organizations. By 1952 the United States, mostly through bilateral negotiations, had persuaded fifty-three nations to participate in this partial embargo (Adler-Karlsson, p. 59).

After 1956, the US Commodity Control List was revised so that many more commodities could be exported to Eastern European nations under a general license. And yet, in a 1962 amendment to the Act, Congress broadened the possibilities for proscription by providing for denial of license for export of any commodity to:

any nations or combination of nations threatening the national security of the United States if the President shall determine that such export makes a significant contribution to the military or economic (italics supplied) potential of such nation or nations which could prove detrimental to the national security and welfare of the United States (cited in East-West Trade, 1968, pp. 1194-1195).

Evidently, the amendment was designed to justify the past proscriptions of commodities that did not in fact fall under the military criterion. It did not result in a further contraction of trade, and this economic criterion was deleted in the Export Administration Act of 1969. By this time, some 450 additional items had been removed from the Commodity Control list; some 1800 commodities still required a validated license for export to the Eastern nations. However, the 1969 Act encouraged the Department of Commerce to liberalize its list and to lift controls on commodities of marginal military value as well as on commodities then imported by Communist nations from other Western nations (Hardt and Holliday, p. 49). A

renewal of the Act, in 1972, called for further liberalization of export controls.¹

Import restrictions have been less important than export restrictions in American economic warfare against the Soviet Bloc, although the United States did impose total import as well as export embargoes on trade with China, North Korea, North Vietnam, and Cuba. The President has the power, under the Trade Agreements Extension Act of 1955, to place import quotas on those commodities which threaten national security (Berman, 1959, p. 508). Under the Trade Agreements Extension Act of 1951, the United States has prohibited the import of seven types of furs and skins from the Soviet Union and China. And under the Tariff Act of 1930, which bars the importation of products of convicts and forced labor, Soviet crabmeat was banned in 1951 (the ban was removed in 1961); presumably, Soviet lumber also could not be imported. Furthermore, the nations of Eastern Europe are subject to our general import quotas on products which are imposed on non-Communist nations.

The US denial of MFN treatment to the Soviet Union and Soviet Bloc nations has proven to be the most newsworthy restriction on communist bloc imports. Although the United States had granted unconditional MFN treatment to all of its trading partners since 1923, the Soviet Union, in the trade agreement signed on August 4, 1937, received MFN treatment only after making a commitment to increase its imports from the United States (Hardt and Holliday, p. 52). MFN was withdrawn and tariff discrimination against the USSR and Eastern Europe was enacted by Congress in 1951. Section 5 of the Trade Agreement Extension Act of 1951 allows the President to:

suspend, withdraw or prevent the application of any reduction in any rate of duty, or binding of any existing customs or excise treatment, or other concession contained in any trade agreement. . . to imports from any nation of area dominated or controlled by the foreign government or foreign organization controlling the world Communist movement (Ibid.).

Yugoslavia, considered not to be under Soviet domination, was exempted. Several Western European nations continued to grant MFN status to the socialist nations throughout the 1950s. In December 1960, the United States restored MFN treatment to Poland but withdrew it again from both Poland and Yugoslavia in the Trade Expansion Act of 1962. In March 1964, before it had actually lapsed under the 1962 Act, the United States again restored MFN status to these nations because the President had determined that such action was "important to the national interest and would promote the independence of such countries from domination or control by international Communism" (Malish, 1973, p.46). In the 1960's, several unsuccessful attempts were made to extend MFN status to other Eastern European nations. Generally speaking, most nations of Western Europe granted MFN to most Eastern nations within a decade after World War II.

The Johnson Debt Default Act of 1934 continued to restrict the granting of American credits to the Eastern nations in the 1950s and 1960s. This Act prohibited loans to, or the purchase or sale of securities of any foreign government which was

¹While the USSR and Eastern Europe came under the Export Control Act and amendments thereto, the Asian communist nations and Cuba were covered by other legislation. After Chinese troops intervened in Korea, the Trading With The Enemy Act, originally passed in 1917, was used to embargo Communist China and North Korea; it was later (1964) applied to North Vietnam. All commercial and financial relations with these nations were made illegal. The virtual embargo on Cuba in 1961 was implemented under a provision of the Foreign Assistance Act of 1961

in default on its debts to the US government. In 1945, Congress modified the Act to exclude all nations which had become members of the International Monetary Fund-International Bank for Reconstruction and Development. The only socialist nation that belonged to either organization was Yugoslavia. All other Eastern European nations (with the exception of Bulgaria and Albania), and the Soviet Union were judged to be in default on debts to the United States and thus denied credit; and since they were the only nations to which the Johnson Act still applied, the Act had clearly become an instrument of East-West economic warfare. In 1963, in anticipation of the proposed sale of wheat to the USSR, the Justice Department decided that the Johnson Act did permit American exporters to grant ordinary short-term commercial credits (90-180 day suppliers' credits) to Bloc buyers. However, in 1965, the Congress voted to prohibit the Ex-Im Bank from lending or guaranteeing credits to any Communist country unless the President determined it to be in the national interest--which he did on a few occasions. With the expanded warming up of the Vietnam War, credit restrictions were expanded 1968 to prevent third nations (e.g. the USSR) from assisting North Vietnam by making them ineligible for Ex-Im credits. With detente, most of these Vietnam credit controls were either repealed or put on the back burner.

While our Western allies, under pressure from Washington, had maintained similar credit controls to ours in the 1950's, these controls were not always honored and most were repealed by 1965.

These then were our cold war trade controls, always more restrictive than those of our allies. By 1953, the nations of Western Europe plus Japan and Canada began to increase their trade with Eastern Europe again and rapidly revised their trade controls to accommodate to expanded trade relations. During the entire postwar period, the US, of all nations in the two blocs, experienced the largest decline in East-West trade. American trade with the Soviet Bloc nations amounted to a fraction of 1 percent of total US trade. The result was that the US market share of Bloc imports which had been 15.6% in 1938 and 31.2% in 1948 fell to almost zero in 1953 and remained below 5 percent over the subsequent 20 years (Table II.6). Our share of Soviet imports followed a similar pattern. In 1938, the USSR imports from the US were 28.3 percent of the total. The decline in the postwar period was rapid: from 14.8 percent in 1947 to 4.2 percent in 1948 to approximately zero percent in 1953 where it remained for the next 6 years. The sixties were little better--US trade remained less than 1 percent of Soviet trade over the whole decade. These figures are illustrated in Table II.6. Table 11.7, covering the USSR and Eastern Europe, illustrates the relative decline in Western Europe's exports to the East through 1953 (especially considering that the attached data include price increases), absolute decline of that of the United States, Japan, and Canada and the rapid increase in exports to the East after 1953 by all Western nations except the United States whose exports to the East increased, but very slowly. Since 1970, all East-West trade, and especially that of the US, increased rapidly as a result of detente (see chap. 11).

Our economic warfare policies, enumerated earlier, clearly had an impact on our trade with the USSR and with Eastern Europe as the data in Tables II.6 and 11.7 indicate. While these policies were designed to hurt the communist nations, they were obviously not without a cost to the United States. So, for example, if one assumes that our low percentage of Soviet Bloc trade was due to the relative restrictiveness of our controls, then it could be argued that removal of the controls would have increased our trade to its appropriate market share. Taking 1938 and 1948 as two possible benchmark years, rows 8 and 9 of Table 11.7 suggest very

crudely the export losses which we sustained as a result of our policies. In 1970, alone, these are estimated at between \$800 and \$1950 million at 1938 and 1948 market shares, respectively, in trade with the Soviet Bloc as a whole.

Using 1928 as a benchmark year, John Michael Montias (1971) presented evidence to the Joint Economic Committee of Congress, which indicates that "...if this country could direct the same fraction of machinery and equipment exports to the area as it did in 1928 these exports would rise from the present \$64 million to \$606 million..." Other economists, using econometric techniques rather than market shares, have come up with similar results. Thomas A. Wolf (1973) argues that, were it not for our restrictive trade policies, our exports to Eastern Europe and the USSR would soon increase to their historical market shares. He concludes that our exports, which totaled \$217 million in 1968, would have probably been \$330 million higher without export controls and still another \$330 million higher if all other discriminatory restrictions had been removed. This study was very conservative in its projections and, among other things, did not take account of possible increases in US agricultural exports, which have since been very large, nor did it take account of the possibility that US exports might increase at the expense of intra-bloc trade.

While our export and credit controls have clearly and significantly reduced US exports to the USSR and other Eastern nations, our failure to grant MFN is estimated to have had a very small impact on the USSR, though much larger ones on Eastern Europe. One recent study suggests that the granting of MFN to Eastern Europe would lead to an increase in our imports of from 30-40 percent (in 1974-1975), with GDR getting the most help (over 200 percent increase) but imports from the Soviet Union increasing by only 7-9 per-cent (Raffel, Rubin, and Teal, p. 1397). The problem with the USSR is that its top 50 exports to the US are resource-intensive and not subject to large tariffs. As of 1974, only 17 of these exports had tariff differentials in excess of 5 percent. While the granting of MFN would lead to large increases in our imports of 15 of these 17 products, the products only amount to from 1-2 percent of our total imports from the USSR (op. cit., pp. 1414-1415). It might be argued that if MFN were granted, many products not exported to us at all by the USSR, would then be. However, a recent study shows that Soviet exports to Western European nations which grant MFN are predominantly duty-free or low tariff items under US tariff schedules (Daniels, p. 1). It may be, however, that these estimates somewhat understate the impact of MFN because while they measure the price impact, they neglect to take account of the psychological effects on attitudes of Soviet and East European planners toward the US market which have been engendered by lack of MFN.¹

To sum up: during the Cold War, the United States experienced losses in export earnings that totaled to many billions of dollars as well as much smaller losses as a result of protecting our economy from cheap imports by withholding MFN. These two sets of losses should not be overstated, of course--they have certainly not caused this country any significant hardship: US trade with the USSR and with the eastern bloc as a whole simply did not have the potential in the cold war period to seriously affect our economy in the aggregate. On the other hand, it is worth raising the question as to whether our controls were even worth their cost to us, small as it was.

¹The impact of failing to grant MFN is discussed in greater detail in Chapter 8.

The export and credit controls probably made good economic and military sense right after World War II. Trade at that time was bound to benefit the USSR much more than the US because the US stood far ahead of the USSR both economically and militarily. Further, there was considerable uncertainty, in the view of many, regarding the possibility of an outbreak of war in the short-term between the two nations. Before the first postwar decade was over, however, the picture was quite different. The threat of near-term war had receded. What is rational economic warfare strategy in the short-run does not always make the best strategy for the longer run. First, it is difficult to mount a successful embargo over the long run because this requires a high level of cooperation from other nations and because it assumes that the embargoed nation cannot overcome its shortages of goods and technology by itself. We, in fact, did not receive full cooperation from our Cocom allies so that the CMEA nations including the USSR were able to obtain many goods denied to them by us. As a result, it could very well be that the trade losses to the USSR from the Cold War were considerably less than ours--with our Cocom allies benefiting at our expense. Further, the USSR did prove both that it could generate very high levels of economic growth without trade with the West and could also develop, by itself, most advanced military products including the H-bomb and very powerful rockets (with German help). The fact is that, with the exception of a few years in the early 1930s, and during World War II, the USSR has virtually gone it alone since the Bolshevik Revolution. It is difficult to hurt a nation through trade denial which has been trading only a few percent of its GNP.

While the policy of trade denial might have been rationalized right after World War II, rationalization is much more difficult for the period after, say, 1955. By that time, it was clear that war was not imminent. And over the longer run, it makes more sense to try to make the potential antagonist dependent so that breaking off trade hurts--as opposed to the embargo approach which forces the other nation to become as independent as possible. Our embargo on Cuba hurt because Cuba depended upon the US for so many products, spare parts, etc. and as a market for so much of its exports, especially sugar. It is this very fear of becoming dependent that leads many US policy makers to oppose US dependence on Soviet oil and gas supplies!

Another fallacy in our attempt to hurt the USSR economically through export controls has been the prohibitions on exports of all sorts of industrial products without the slightest military value (e.g. mechanical potato pickers) at the same time that shipments of wheat and other nontechnical products have been allowed. There are two aspects to the fallacy. First, as pointed out to the Senate Committee on Foreign Relations in 1964 by Harvard Professor Thomas Schelling (and quoted in Chapter 1.)

"Wheat shipments may have the same effect on military programs as jet engine sales. Wheat shipments may permit the Soviets to keep chemical industries oriented toward munitions rather than fertilizers; jet engine sales may permit the Soviets to allocate engineering resources to consumer goods rather than jet engines."

Table II.7

Western Exports to Eastern Trading Area

(Millions of \$'s)

	<u>1938</u>	<u>1948</u>	<u>1953</u>	<u>1960</u>	<u>1963</u>	<u>1968</u>	<u>1970</u>
1. US	168	400	2	193	166	217	353
2. Western Europe	822	828	884	2266	2405	4574	5691
3. Japan and Canada	<u>100</u>	<u>62</u>	<u>5</u>	<u>111</u>	<u>519</u>	<u>859</u>	<u>1316</u>
4. TOTAL	1090	1290	891	2570	3090	5650	7360
5. US as % of Total	15.6%	31.2%	0.2%	7.5%	5.3%	3.8%	4.7%
Potential US Trade at:							
6. 1938 Market Share			139	401	482	881	1148
7. 1948 Market Share			277	802	964	1763	2296
Estimated US Losses at:							
8. 1938 Share (6)-(1)			137	208	316	664	795
9. 1948 Share (7)-(1)			275	609	798	1546	1943

Source: Derived from CED, A New Trade Policy Toward Communist Countries, 1973.

Second, Schelling could have gone farther and added that wheat and corn shipments probably save more resources than shipments of most industrial products because Russian agriculture is so inefficient – it is the sector in which the Soviets have the greatest comparative disadvantage (see Chapter 4).

Finally, from a political standpoint, our economic warfare failed to differentiate adequately among the communist nations. How long did it take us to recognize, in these policies, the Sino-Soviet conflict? Or Romania's efforts to break economically with the Bloc? Much too long! And did not our policies provide a constant source of friction with our NATO allies who did not agree with them and were put in the unpleasant position of rendering them ineffective? And is it not unwise for a great power to pursue for so long policies which have been proved impotent? ¹

¹ Changes in our policies in the détente period are discussed in Chapter 11.

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Chapter III: The Impact of Central Planning and Related Institutions on Soviet Foreign Trade Behavior

Introduction

The foreign trade behavior of nations is profoundly influenced by their domestic economic mechanisms, goals, and institutions. Since capitalist and communist nations differ substantially in these respects, it follows that their foreign trade behaviors will also differ from each other. The purpose of this chapter is to show the logic behind the idiosyncratic international economic practices of the eastern nations as these practices derive from central planning by direct controls and related institutions. In order to have a perspective from which to view communist economic behavior, we indicate, in a paragraph, the relations between the domestic and foreign economic relations of capitalist nations.

Legally, capitalism is based on private ownership of the means of production and, given private property, the right of free enterprise. Spot transactions and economic contracts are freely engaged in and include the right to set prices. The system is guided largely by the invisible hand on which the household sector has the major influence. Foreign trade can be viewed simply as an extension of this simple model of the domestic market but with additional common institutions to take care of problems involved in the existence of separate national currencies (e.g. exchange rates, balance of payments, the International Monetary Fund), policies of protection of domestic industries (tariffs, quotas, GATT), and the like. As time passes, new institutions evolve, some of which (e.g. multinational corporations, Eurodollar markets) represent further integration of domestic and international markets. All of this is familiar and needs no elaboration. We turn therefore to a brief description of the central planning model and then to its impact on Soviet Bloc foreign trade behavior.

The Domestic Economies¹

Government, Property, Rights, and National Economic Goals

A major difference between communist and capitalist nations is the one party government which characterizes the former. The special economic significance of this difference is that one party governments can make and implement decisions without popular consent to a greater extent than is possible in capitalist multiparty governments. This does not mean that the necessarily communist governments ignore the people's wishes and interests - but simply that they have more power to do so. More broadly, one might say that greater centralization of political power affects the emphasis attached to different national economic goals. Among other things, this has resulted in the USSR in a preference for the extensive use of central planning with direct controls in sectors which, under capitalism, are guided by market-price mechanisms.

¹Where differences between communist nations exist, stress will be on the Soviet model.

A second fundamental difference between capitalist and most communist societies is, in the latter, the ownership and control of most non-agricultural enterprise. Agriculture and handicrafts, are partly privately or cooperatively owned, the degree of national ownership and control varying by country.

A listing of Soviet and US economic goals does not reveal large differences. The differences occur primarily in the relative importance of each and in the means of implementation. As to means of implementation, we have just noted the Soviet predilection for central planning with direct controls in contrast with Western faith in market mechanisms.

Probably the major Soviet goal over the past 50 years has been rapid industrialization (in the earlier years) and rapid economic growth. This goal has been pursued with special intensity by the USSR because of its relative backwardness, the relevance of growth to military power, and the more direct role of the government in economic life (determining the rate and direction of investment, nature of the R&D effort, etc.). Efforts to maximize growth have been relatively constrained since the early 1960s, however. Eastern leaders have been forced by political events to pay more than lip service to what is now called "consumerism." Imagine Stalin using precious foreign exchange to import grain in bad crop years or devoting one-fourth of gross investment to agriculture as Brezhnev has done? In recent years, Soviet and East European growth rates have been declining and have been cause for concern. The slowdown in economic growth, it should be noted, has been a major factor behind the economic reforms which have taken place since the early 1960s. (The causes of the postwar decline in the Soviet growth rate are discussed in Chapter VII.)

Full employment is a major goal of both systems. The USSR does not admit to unemployment, and overfull employment planning discussed below more or less insures that there is little or no unemployment due to inadequate demand. Despite Soviet claims to the contrary, there are, of course, considerable frictional unemployment (job-changing and structural mismatches between job requirements and worker and skills) unemployment, not to mention unemployment and underemployment as a result of planning deficiencies and errors. Because of the direct approach to full employment taken under central planning, the USSR has little or no incentive to try to maintain or increase exports in order to achieve full employment, as some Western nations still do. In fact, were it not for the necessity of paying for imports, the CPEs would be happy to cease exporting entirely.

Stable prices, like full employment, are a goal of both systems, though viewed as much more essential by planners because it simplifies their planning tasks. As with the full employment goal, socialist nations have the advantage in implementation. They simply control prices directly and for long periods of time. Stability of prices under central planning has little impact on foreign trade, however, because, as we see below, domestic prices are totally divorced from foreign trade prices in the eastern nations. Relative stability of domestic prices in market economies is desirable for, among other things, the health of the balance of payments.

Central Planning

Central planning by direct controls on a national scale does not exist in capitalist nations. Most economic transactions are guided and implemented by decentralized market mechanisms - the so-called invisible hand. Decentralized market mechanisms are also used almost exclusively in Yugoslavia, a nation which is generally characterized as representing "market socialism", and in

Hungary, though to a lesser extent. The remaining communist nations, while relying heavily on direct controls, do not plan the output of every commodity nor regulate every transaction. To do so is far beyond the capacity of any governmental planning board. Consider that the 1967 Soviet price reform was reported to have involved 20 million prices and to have taken 5 years to implement! This suggests that the number of transactions each year must run into the billions! To ease the planning burden - and to achieve greater efficiency - consumers' goods are distributed in the USSR much as they are in the West although prices are set by the state; and labor is also largely allocated via market mechanisms albeit subject to macro-controls by the state, particularly controls relating to the occupational composition of the labor force.

Free market mechanisms have little function, however, in the very large intermediate products market in which enterprises transact business with each other and with government organizations (army, schools, hospitals, etc.). The outputs of major products are centrally determined by a planning board and, having been produced, their allocation (quantity and delivery date) is also centrally determined and in great detail. Enterprises are told how much to produce, where to ship their output, from whom to buy their inputs, and the price of each transaction. The planners' coordination problems are mind-boggling!

Further, they must assure that the supply and demand for each commodity balances. Toward this end, they establish "material balances" for several thousand commodities. If supply and demand do not balance, they are faced with difficult adjustments because of the complexity of inter-enterprise relationships. A shortage of, say, a half million tons of steel can mean, on the one hand, that factories producing machinery, freight cars, automobiles, etc. will suffer enforced idleness. Producing another half million tons of steel, on the other hand, involves arranging the additional production also of large amount of inputs required to produce the steel: coal, coke, limestone, power, etc. The additional production of these items involves the additional production of still other inputs - and so forth. Planners' balancing and coordination problems, solved by the invisible hand under capitalism, cannot be overestimated. They are responsible, in part, for the economic reform movements in Eastern Europe and the USSR beginning in the early 1960s, for the widespread existence of enterprise black markets, enterprise use of expeditors, and so forth. The complexity of central planning with direct controls obviously affects the attitude of planners toward venturing into the relatively risky and uncertain world of foreign trade.

Central planning, as practiced among the Eastern nations, has always amounted to over-full employment planning involving such a degree of "tautness" that it has never been possible to achieve all targets. In effect, the economy is permeated with excess demand for both consumers' goods and (by plant managers for) intermediate products. In this regard, the overtight planned economies resemble capitalist economies in wartime with their inflationary pressures, hoarding, black markets, expeditors, and the like. A major disadvantage of overfull employment planning is that, with more demand than supply and with controlled prices, the economy is permeated with perennial sellers' markets. Sellers' markets lead to a lack of concern by producers with quality and with the needs of consumers and industrial users, in general. This has important implications for the foreign trade experiences of the communist nations.

Pricing

One would not expect the economic system described above to generate prices which would conform to those generated under otherwise similar economic

conditions but with free markets. In fact it does not. Prices in the CPEs are generally viewed as "irrational" by eastern and Western economists alike. By "Irrational" is meant not truly reflecting value in the sense either of scarcity relative to demand or of cost of Production. With regard to cost of production, adherence to the Marxian labor theory of value plus state ownership of industry has meant inadequate rent, interest, and profits charges. More important yet, prices are usually maintained unchanged for decades although supply and demand conditions change constantly. In the post war period, only three significant price revisions were made in the USSR: in 1949-49, in 1955, and in 1967. When 20 million prices, many of which are interrelated, are changed at one time, one may well question how rational the final solution is. Finally, prices are distorted by the planners' practices of granting subsidies of various sizes to producers' goods industries and of levying unsystematic and often very high excise taxes on consumers' goods.

Enterprise and Management

Plant managers in the planned economies operate in a very different environment than is the case under capitalism. The major difference is that the capitalist enterprise exists in a world of competition and ability to compete successfully is necessary for survival. Competition occurs in several dimensions: price (of both outputs and inputs), quality of product, cost-reduction, advertising, new technology, servicing, packaging, and so forth. The Soviet manager lives in a simpler world in this regard. He doesn't have to compete nor are many of the tools for competing even available to him. His primary job is to fulfill the output plan assigned to him and to ship his output where the plan dictates. Failure to fulfill the plan by one enterprise means, as noted above, that other enterprises may not receive the inputs required for their plans, and so forth. Safeguarding the integrity of the national plan is of major importance. For this reason, the largest bonuses are earned by managers who fulfill their output plans, and much management behavior is explained by this fact. For example, managers who have difficulty achieving their output plans will sacrifice quality for quantity in order to get to the manager their bonuses. Reduction of quality has few adverse consequences to the manager in a situation in which a manager need not compete for markets but simply ships his output where the supply plan directs. The prevalence of sellers' markets contributes to the disregard of quality. Management also has little incentive to introduce new technology. New technology is always risky. While it is being introduced and absorbed, output may decline and bonuses lost. If it increases output significantly, targets will be increased, leaving the plant in no better position to achieve bonuses than before. Higher quality products and new models are not viewed as particularly desirable by plant managers for reasons mentioned earlier in this paragraph. Other examples of unfamiliar management behavior under central planning could be cited but, as we see below, the above are most relevant to the hard currency balance of payments problems of the CPEs and to their current interest in importing Western technology.

Special Features of Soviet (Communist) Foreign Trade

We have just sketched some of the unique features of centrally planned economies. It is demonstrated below how foreign trade behavior follows quite logically from the special practices related to central planning with direct controls and associated institutions.

The Foreign Trade Monopoly and its Impact on Trade

It is quite natural for nations in which domestic industry is nationalized to also nationalize foreign trade and finance. The various nations of Eastern Europe and the USSR each have a Ministry of Foreign Trade which is in charge of foreign trade operations. In addition, foreign exchange transactions are handled either by the central bank or a special bank for handling currency exchanges with other nations. While the foreign ministries are in charge of trading operations, their authority is limited to implementing decisions which flow out of the national economic plan. The Ministry of Foreign Trade attempts to sell abroad those products in which production in excess of domestic requirements is projected and to buy from foreign nations products required for plan fulfillment. They also make ad hoc purchases and sales abroad result when unexpected shortages or surpluses develop in the course of the overall plan or the plan is unexpectedly changed in mid-term.

Because the conduct of foreign trade is a large operation, it is sub-divided by groups of commodities and some 40 different sub-ministries or foreign trade organizations (called FTO's) are each in charge of the exports and/or imports of one group. The FTO's, following the priorities laid down by the national economic plan, act as intermediaries in East-West trade between domestic producers and foreign importing enterprises, on the one hand, and between domestic users and foreign exporting enterprises on the other. In the case of intra-bloc trade, the FTO's of one country deal with those of the others and, in each nation, the FTO's represent their producing and using (consuming) enterprises. This system, which largely prevents direct contact between export-producing and import-using enterprises, operates to reduce the usefulness and satisfactions gained from trade. This is particularly true for manufactured products which often require a substantial amount of consultation between buyer and seller to insure that the product meets required specifications. Because of its obvious drawbacks, some of the Eastern nations (e.g., Hungary, East Germany) have allowed some of their enterprises a limited autonomy to make direct contacts with foreign firms. However, Soviet trade is still conducted almost exclusively by FTO's. The drawbacks of this system fall especially heavily on exports. The average plant manager is rewarded for fulfilling his sales target but these targets do not usually distinguish between domestic sales and exports. From the standpoint of the manager, in fact, it may often be preferable to sell to domestic users since the requirements of products to be exported sometimes may involve bothersome and costly alterations which make it more difficult to achieve the planned target. Again, some Eastern European nations, but not the USSR, have attempted to overcome this handicap by granting special bonuses for exports.

The attitude taken toward trade by the foreign trade monopolist is different from that taken by either individual traders or by national governments in the West. Individual Western traders, whether exporters or importers, are simply interested in the profits on their transactions. Western governments would probably not distinguish between exports and imports on profitability grounds. They do usually put more emphasis on promoting exports than imports, however, because of eagerness to avoid balance of payments problems. The foreign trade monopolist, in contrast, takes an entirely anti-mercantilist view toward trade. Primarily, it is interested in bringing in the imports necessary to fulfillment of the central plan; exports are viewed as a loss of resources and a necessary evil--necessary to finance the desired imports.

The foreign trade monopolist also may often view the profitability of trade differently from in the West. Being concerned with the exchange of exports for

imports, rather than with each independently, profitability may be calculated in barter terms. So, in the West, the exports of a product at below-cost prices will be taken as prima facie evidence of dumping in order to capture a foreign market. The foreign trade monopolist, on the other hand, might sometimes legitimately export a product at below-cost in order to earn the foreign exchange to buy another product whose value to the economy is very great.

Tariffs and explicit import quotas are superfluous tools of protection for the foreign trade monopolist. A Western government which desires to prevent foreign competition with some domestic industries will usually levy tariffs or quotas against the foreign products. Under central planning, the decision to import or not is made in the first instance in full cognizance of the planned outputs of import-competing enterprises. Where imports are not desired, they simply are not planned for. In effect, the plan sets implicit quotas.

Finally, foreign trade monopolists operating under instructions from central planners are strongly motivated to do as much business as possible through bilateral agreements with other nations. Long-term agreements, usually five-year agreements, are desired to provide the planners with guidelines for future investment, production, and specialization. Annual agreements are viewed as essential, by the planners, to ensure first that the products essential to plan fulfillment, are imported, and second, to guarantee that the products scheduled for export have buyers. Given the inconvertibility of bloc currencies (below) it is obvious also that the exact balance on current account required in intra-bloc trade could not be achieved without carefully specified and detailed annual trade agreements. Trade agreements between bloc nations, usually hammered out in long bilateral bargaining sessions, serve to reduce the uncertainties of foreign trade and provide the foreign trade officials with huge economies of scale in the conduct of their work. Trade agreements are also desired with Western nations but these cannot, of course, ever be binding as they are in intra-bloc. The communist nations can commit themselves firmly to buy and sell in East-West trade, but the Western partner government can usually only provide a favorable climate for reaching agreement since binding commitments lie with its private exporters and importers. By favorable climate, we mean eliminating special restrictions on trade with the communist partner and by encouraging contacts between private traders and communist trade associations.

Central Planning and the Scale of Trade

The Soviet bloc nations trade relatively less than comparable capitalist nations. As of 1967, for example, the socialist nations with more than one-third of both the world's population and industrial output, engaged in only about one-eighth of world trade. These figures are somewhat biased, of course, by their inclusion of China and the USSR, two very large, self-sufficient nations - nations like these naturally trade a small percentage of their output. Further, the degree of undertrading is probably less at present than it was in the 1950s and 1960s and would be still less if it were not for the persistence of serious hard currency deficits which inhibit the expansion of East-West trade.

While the overall impact of central planning is to reduce the level of trade, in fact central planning has both trade-augmenting and trade-reducing effects, both of which are examined briefly below.

First, Soviet planners have a tendency to avoid trade where this is possible and where the cost is not excessive: Several factors combine to explain what some have called "trade aversion." A major reason is a desire on the part of the authorities to minimize disturbances to the plan. As we have seen, the plan is

extremely complex and disturbances to any sector can have adverse repercussions on many other sectors. To the authorities, the dangers of disruption probably appear greater from interruptions of planned imports than from failures of supply from domestic production. At times - for example, in the 1950's - fears of disruption relating to imports from the West must have been aggravated by the Cold War.

Another factor feeding trade aversion is nationalization of industry. Typically, capitalist nations do allow foreign competition with most of their domestic industries. Certain industries are always protected, of course. Agriculture and industries required for military purposes are two cases in point. However, most industries must meet foreign competition if they are to survive. Nationalized industries are another story. With its relatively large power of the purse, a sovereign government finds it natural and easy not only to protect through import controls but to subsidize and support state industries which would have gone bankrupt had they been in private hands. This effect is reinforced in the East by the desire, just mentioned, of avoiding the risks of foreign trade.

Still another factor encouraging trade aversion is the irrational price structure in Soviet bloc nations. It is difficult enough for central planners to make correct foreign trade decisions involving thousands of commodities and dozens of different trading partners. These difficulties are multiplied by the lack of reliable information as to which products can be profitably exported and imported when domestic prices are irrational. There are always certain obvious exports and imports - in the case of the USSR they must import grain when they have a bad crop and they must import tin since they don't produce enough to meet their needs; and they clearly make a profit when they export petroleum to the West. But for every obvious case, there are many others in which clear cut decisions cannot be made and in which trade may be foregone for lack of information.

Finally, trade aversion is certainly reinforced by the requirements of military security. This needs no further explanation, of course, except to say that it is related to and reinforces the aversions connected with disruption of the plan and nationalization of industry.

A second trade-reducing factor is the rigid bilateralism which is practiced in intra-bloc trade. Given the currency and commodity inconvertibilities which afflict the centrally planned economies (see below), it is inevitable that they balance their trade with each other on a rigidly bilateral basis. An examination of their trade data (below) bears out this reasoning. How is bilateral balancing accomplished when, in fact, in the natural state of things, trade should probably be out of balance with most individual partners though close to balanced in the aggregate? Balancing is probably usually achieved by the surplus (deficit) nation cutting back on its exports (imports). It can be, and undoubtedly sometimes is, achieved also by the surplus (deficit) nation agreeing to import (export) more.

The first method of balancing involves a decrease in desirable and profitable trade. The second represents an increase in undesirable trade for the surplus nation which, in effect, accepts products it doesn't want in order to balance accounts and to avoid the perhaps even worse consequence, viz. involuntarily granting credit. The surplus nation often attempts to re-export these undesirable products. It has been reported that in one year, at least, almost 15 percent of Hungary's exports were such re-exports. The question arises: how large a reduction of trade results from rigid bilateral balancing in intra-bloc trade. Rough estimates suggest a reduction of approximately 10 percent.

A third trade-reducing factor is the communist nation's "inability to sell" manufactured products in Western markets because of poor quality and backward

technology (see below). Poor quality and backward technology are also, of course, trade-increasing factors--since they do increase communist demand for imports. However, since the communist nations have relatively intractable hard currency balance of payments problems (see below), and imports are restrained for lack of means of payment, the trade-reducing effects on exports act as a prior constraint. Since manufactured products constitute the bulk of the exports of industrialized nations, this competitive disability is significant.

A final set of factors which reduces aggregate Bloc trade, but particularly East-West trade, is the political-economic factors which lead to such relatively high levels of intra-bloc trade. When the communist bloc was first put together after World War II, trade patterns were wrenched from their previous, naturally profitable structure to a structure reflecting the new political alignments. The socialist nations which had previously traded only some 15 percent of total trade with each other were, within a few years, conducting more than three-fourths of their trade with each other. The USSR shifted from 5 percent with Eastern Europe before World War II to 55 percent by 1953. At that time, Soviet political pressures and American trade controls plus American-sponsored Western European controls each bore part of the responsibility for the changed structure of trade. Since that time, political pressures have remained important factors constraining East-West trade but much less so as time goes on. Nevertheless, one must conclude that, since the eastern nations are not free, politically, to buy and sell in the most desirable markets from an economic standpoint, their total trade must be reduced by this loss of choice.

Alongside this long list of trade-reducing factors, the trade-augmenting factors appear very meager and, in fact, they are. First, the various systemic factors which inhibit exports to the West--such as backwardness in technology and inability to produce quality products to "sell" to the West--tend, as noted above, to increase trade by developing excess demands for Western products, demands which otherwise would not exist. These demands did not have very free expression until the late 1960s but were largely repressed. Since that time, with detente in the 1970s and the great expansion of Western credit to Eastern nations, imports of these products have grown rapidly and helped to expand trade.

A second trade-augmenting factor is the need of the CPEs to rely on imports to correct planning errors. That is to say, if either because of the complexity of planning or because of excessive tautness, some products are not produced in planned quantities, then imports will often be the solution. This is particularly the case if the products in short supply happen to be intermediate products--inputs needed for the production of still other products. For, in fact, the shortage of an important input could result in the disruption of production in several later stages of production and cause losses to the economy many times greater than the value of that input. Ordinarily, one would expect that unexpected production shortages of specific products could be met by drawing down inventories. This is the way a capitalist economy would take care of the problem. Under overfull employment planning, however, inventories do not have the opportunity to accumulate to optimum levels. Nor are those which exist properly distributed. Any manager who can get his hands on goods in short supply does so. Those who do the hoarding one year are not necessarily those who run short during the subsequent year.

A third trade-augmenting factor is the sorry state of agriculture in Eastern Europe, and particularly in the USSR. If this were entirely due to nature - and a good part of it is certainly climatic - one could ascribe Soviet imports of food to "comparative disadvantage". The failures of Soviet agriculture, in particular,

however, are attributable also to poor organization, lack of incentives, and so forth. For a long time, the USSR has striven, at high cost, to keep itself and Eastern Europe independent of the West for food. These efforts finally broke down in 1962 and, since then, especially in the 1970s, the USSR has imported large quantities of grain from the West. This situation can be expected to continue, in the absence of a new cold war.

Exchange Rates, Foreign Trade Prices, Inconvertibility and Bilateralism

Exchange rates are an integral part of the mechanism of international trade among capitalist nations. Exchange rates are the connecting link between economies due to the facts that, first, they enable traders to compare prices of products across countries and, second, they constitute the prices at which currencies exchange for each other. These two functions are related, of course, since the prices at which currencies exchange for each other depend to a considerable extent on the relative price levels of tradeable goods in different countries. It is, then, the exchange rate which, under capitalism, makes international trade an extension of domestic trade in a world of different and independent national currencies.

This type of foreign trade pricing and exchange rate system does not operate in the centrally planned economies. As explained earlier, the internal prices of the socialist nations are "irrational." Further, there is no consistency in the type of "irrationality" that characterizes the prices of the different nations. The authorities in each country know that the relative domestic prices at which products are sold do not reflect true relative values from the standpoints of either supply (cost) or demand and, for purposes of foreign trade, attempt to calculate what they should be. Soviet foreign trade planners, for example, use approximately 250 different price-adjustment coefficients in an effort to rationalize foreign trade decision-making.

At what prices does trade take place between two socialist nations, and at what exchange rate? These questions can be answered empirically--that is, by referring to actual practice. In fact, neither set of internal "irrational" prices can be used since, as noted, these do not reflect true relative values to either nation. Attempts have been made to work out an "own" pricing system for the Soviet bloc without success. In practice, only one set of relative prices has had general acceptability, namely, capitalist world market prices. These are the prices, with various adjustments of course, at which intra-bloc trade takes place. By the same token, it can be seen that these must also be the prices at which East-West trade is transacted. In effect, then, actual domestic prices are largely ignored for purposes of foreign trade--foreign trade prices are not arrived at by converting domestic prices through an exchange rate. By the same token, the official exchange rate is also ignored. An exchange rate which equates two sets of unused irrational prices or, in East-West trade, one set of irrational prices with world prices, obviously doesn't provide buyers and sellers with useful information regarding trade possibilities.

Are exchange rates used for converting currencies one into the other? This function is also avoided in Soviet Bloc trade practice--as it should be when the exchange rate obviously doesn't accurately represent the true value of a currency. Trade between socialist nations is based on world prices and an attempt is made to achieve an exact balance with each partner in those prices (except when a planned credit is extended). If trade is, in fact, balanced, then no currency need be transferred and an exchange rate is not needed. If planned balance is not achieved, the usual practice is for the deficit nation to export the required deficit

in goods in the first quarter of the subsequent year or to pay in hard currency--both solutions obviating the need for an exchange rate. East-West trade naturally takes place in hard currencies, and surpluses earned with one Western nation can be spent to support deficits with others. There is no need, therefore, for bilateral balancing nor for an exchange rate for conversion of bloc and Western currencies.

Why have exchange rates existed at all under these circumstances? From a political standpoint, it would be demeaning for nations to present their foreign trade accounts in Western currencies rather than in their own--even though the trade accounts in their own currencies are as unrelated to their domestic accounts as would be accounts rendered in sterling or dollars. Second, an exchange rate is necessary for tourists, consular officials, etc. In fact, for tourism it is essential that exchange rates not be too far off from the true value of the currency as expressed in the relative price level of consumers' goods in the nation. Where the exchange rate is way out of line, special tourist rates have been used.

The inconvertibility of Soviet Bloc currencies is closely related to (derives from) the character of their pricing and exchange rate systems. Currency convertibility usually refers to the free exchange ability of currencies at going exchange rates. Capitalist nations suspend convertibility when serious balance of payments deficits are experienced at pegged exchange rates. What usually is done is to suspend "resident" convertibility which means not allowing one's own citizens to purchase foreign exchange from the central bank which might then be used to buy foreign commodities, securities, or what have you from other nations. In other words, it is a way of controlling imports at the going exchange rate in a balance of payments crisis situation. Non-residents who hold a nation's currency are allowed to spend it in the country and are usually, though not always, allowed to convert it to other currencies.

Balance of payments pressures (below) are certainly one factor behind the inconvertibility of Soviet bloc currencies. In addition, however, they suffer from more serious ailments, as well. So, convertibility of a bloc currency into other currencies is precluded by the facts, noted above, that it is difficult with irrational prices to establish an appropriate value at which exchanges might normally take place.

Still more serious than the existence of currency inconvertibility is the ailment, unique to communist nations, of commodity inconvertibility. Commodity inconvertibility means not only not allowing your currency to be converted into other currencies, but in addition not allowing your currency (or any currency) to be spent freely by foreigners on your goods. (In fact, it is illegal for foreigners even to hold bloc currencies.) There are two reasons behind this behavior. First, with domestic prices so irrational, a foreigner could shop around and buy products whose internal prices are way below cost. The nation would, of course, incur an economic loss on such exports. Second, and perhaps even more important, unplanned exports, especially of intermediate products, would be equivalent to throwing a monkey wrench into a well-oiled machine, in this case the central plan. If a foreigner entered the market and bought ten thousand tons of steel destined for a steel processing plant, that plant and all subsequent plants which used the steel in one form or another until final products were produced, would have their plans upset, capital and labor underutilized, and outputs reduced. In effect, the centrally planned economies cannot allow competition with domestic enterprises where the products are essential to the operation of the national plan. Intermediate products which are to be exported must be included in the plan as exports but not sold on an ad hoc basis. The only exception to this rule is products which, through error or through sudden change in plan, just happen to

be in surplus supply. Currency inconvertibility often leads to some bilateral balancing of trade. That is, a nation with severe balance of payments problems is apt to allow its residents to import from other nations only as much as the other nations are willing to import from it. For their part, the other nations will be unwilling to accumulate further holdings of the currency of the nation in difficulty because of the risks (of devaluation) attached.

Bilateral balancing is even more mandatory under commodity inconvertibility. Consider the problem of a bloc nation which experiences a surplus with another bloc nation and as a result holds the other nation's currency. Unlike the holder of a capitalist currency who can come into the country and purchase anything that is movable at the going price, he who holds a communist currency can spend it only on what happens to be in surplus supply at the moment (except for small amounts of consumers' goods) or on whatever the other nation may be willing to put into its plan for you at some future date. The proof that this acts as a strong deterrent to holding each others' noted above, currencies is the fact, noted above, that intra-bloc trade is quite strictly and rigidly balanced on a bilateral basis.

A major attempt was made in 1964 to eliminate the shackles of bilateralism and, to this end, an International Bank for Economic Cooperation (IBEC) was established. The Bank created a new currency called the "transferable ruble" which members were supposed to accept in the event of surpluses with each other.

Table III.1 Imbalances in Communist Trade

	<u>Exports</u>	<u>Imports</u>	<u>% Imbalance</u>
	(in millions of rubles)		
Bulgaria	1479	1426	3.6
Hungary	1135	1148	1.1
Poland	1838	1745	5.1
Rumania	578	612	5.6
Czechoslovakia	1511	1518	0.5
East Germany	2165	2151	0.6
China	108	106	1.9

Deviation from perfect balance usually results from unforeseen delays in delivery and the like and not from genuine multilateralism. The percentage imbalances experienced by Capitalist nations average between 30 and 40 percent in normal times. East-West trade imbalances are only slightly below those between Western nations.

Presumably, these rubles were then supposed to be freely spendable in any other nation in the Bloc. Under these circumstances, nations were encouraged to let surpluses and deficits fall where they may, using the transferable rubles earned through surpluses to pay for the deficits, the sole constraint being to keep within an overall balance on current account, This attempt failed and bilateralism remains as rigid as ever. The reason it failed is that the existence of a "transferable ruble" removed none of the conditions responsible for commodity inconvertibility. A nation could no more go into, say, Poland and freely spend transferable rubles than it could spend zloty's. Further, it turned out to be infeasible to achieve overall balance by letting deficits and surpluses develop where it seemed profitable, since the strategies of various Eastern nations with regard to surpluses and deficits were not consistent. The end result has been that intra-bloc trade is

as bilateral as ever, and talks continue about how to achieve multilateralism.

Interestingly enough, and very important, is the fact that despite commodity inconvertibility, the Eastern nations are not condemned to rigid bilateralism in their trade with the West. As noted above, trade with the West is conducted at world prices, and evidence of the rigid bilateral balancing is provided by Soviet trade data (in 1974) from official statistics on imbalances paid for in convertible currencies. So, an Eastern nation which earns convertible currency in trade with one Western nation is free to spend it (run a deficit) in any other Western nation. In this regard, it differs little from any small Western nation which conducts most of its international transactions in one or more of the major currencies, but not in its own. It is worth noting at this point that since the causes of currency and commodity inconvertibility are different, so are the policies which are required to eliminate them. Currency inconvertibility, as is well-known, can be eliminated quite simply by currency devaluation or by shifting from a pegged to a floating exchange rate system. Currency devaluation has no effect on commodity inconvertibility since, as we have seen, bloc exchange rates are not real prices and serve no real functions in international economic relations except for tourists. Commodity inconvertibility can only be eliminated by removing its causes, namely central planning with direct controls. This is of course easier said than done. It would require drastic decentralization and a shift over from direct controls to use of market forces. Among the communist nations, only Yugoslavia has instituted such drastic reforms. Reforms will be discussed in more detail below.

Finally, we also discuss later the wisdom of admitting Soviet bloc nations into the International Monetary Fund. Suffice it to say here, that their international monetary systems seem quite inconsistent with past and whatever future goals are now on the horizon for the IMF. In fact, it is virtually true that they do not have indigenous international monetary systems.

Commercial Policy Issues: Dumping and MFN

At least two major commercial policy issues are raised by central planning and its foreign trade spin-offs, viz., dumping and most favored nation treatment. These will be discussed in turn.

a. Dumping

The USSR has been accused of dumping since the early 1930s and since World War II has had further charges levied against it as have other nations of Eastern Europe. Dumping is usually defined as exporting products at below domestic cost of production. This is viewed as unfair competition because, presumably, once having acquired a market in this fashion, the exporter will not be able to sustain the low price, but will sell at the old price, having eliminated competitors in the importing nation. As a result, importing nations protect their import-competing enterprises, if these enterprises complain, by levying sufficiently large countervailing tariffs on the exporters to raise prices to domestic levels, or by taking other protective measures. Usually, countervailing tariffs are levied only to protect domestic industry, not third nation exporters.

Further, even if the exporter is selling below-cost, the import-competing enterprise will not complain unless below-cost also means below domestic price. So, in effect, below the importing nation's domestic selling price is an important criterion of dumping - though once this has been established, below-cost must

also be proved before countervailing tariffs are levied.¹

It is impossible to prove that a centrally planned economy is dumping by demonstrating that it is selling below cost of production. The data are simply not available. Furthermore, even if such data were available, they would not be meaningful for at least two reasons: the irrationality of CPE cost and price structures and the absence of meaningful exchange rates at which to convert CPE prices in other currencies. The motivation behind dumping is further obscured by the existence of a foreign trade monopoly which, as argued above, often views imports rather than the foreign exchange earned as the price received for exports. Further, the concept of dumping is implicitly based on the notion that the markets of the importing nation are open equally to the products of all nations, to be captured by the products of the lowest cost producer. In fact, this has not been true. The products of the communist nations have often been discriminated against on non-economic grounds and the only avenue open to them to compete has been through "cutthroat pricing".

Dumping by the USSR and related issues are discussed in detail in Chapter VIII.

Most-Favored-Nation (MFN) Status

MFN received considerable publicity in 1974-75 when the United States tied MFN status for the USSR to that nation's emigration policies, a nexus which the USSR rejected, thereby annulling the US-USSR Commercial Agreement of 1972. MFN clauses are not new. As noted in Chapter II, the US and Czarist Russia exchanged MFN treatment in 1832.

MFN clauses in trade agreements guarantee to the signatories that any favorable trade conditions granted by either to a third nation, will be granted also to the other signatory. In present day conditions, the major objective of MFN is multilateral lowering of tariffs, tariffs having been over the years the major national instrument of trade protection. The two sub-objectives of MFN are (1) expansion of trade and (2) equal treatment or non-discrimination in trade. The achievement of each of these objectives can easily be shown to increase gains from trade. MFN clauses as they apply to tariffs clearly do not work in the conventional way with CPE's. Until the early 1960's, the CPE's did not have tariffs for reasons already discussed. In an effort to negotiate tariff reductions with Western nations, tariffs were introduced in the early 1960's by the USSR, Hungary and a few other Eastern nations. These tariffs contained 2 or 3 columns of rates: one with low rates for nations granting MFN to the nation in question; one with high rates for nations not granting MFN; and a third (where it existed) for the LDC's with low or zero rates. The FTO's were told that their profits, hence bonuses, on imports would be calculated "after tariffs" - so they had an incentive to buy from nations with MFN and low tariffs. MFN granted by this technique is not equivalent to capitalist MFN, nor does it achieve the same objectives. The lowering of tariffs under capitalist MFN reduces protection of the domestic market and thereby increases the volume of imports and of trade. In the socialist nations, the volume of imports is already determined; the lowering of tariffs affects neither the price in the domestic market nor the quantity of goods imported. All that the application of the 2-column tariff does is redistribute a given amount of trade from those with the higher tariffs to those with the lower tariffs. It does not increase the volume of

¹In the US law, a foreign exporter is considered to be dumping if he sells in the US market at a price lower than in his own domestic market.

trade. A second weakness of MFN granted by this technique is that, despite protestations to the contrary, the grant of MFN to a capitalist country only enables that country to compete more successfully against other Western nations but not against other communist nations - the major foreign competition. Customs unions always favor each others' products with still lower tariffs than ordinary MFN, of course, in a Western customs union. However, in a Western customs union, competition is still possible if an outsider is sufficiently efficient to hurdle the higher tariff and still sell at the lower price. CMEA bilateral bargaining sessions and delivery agreements are relatively (but not absolutely) insensitive to such market considerations.

In practice, the first problem raised above has been circumvented both by individual nations and by GATT. Instead of applying the lower column of tariffs to reciprocate MFN the socialist nation now simply agrees to increase its imports by a certain percent from the other nation or, in the case of GATT, from all the member nations. In joining GATT, and in exchange for MFN, Poland agreed to increase its imports from GATT members by 7 percent per annum and, Rumania, by the same amount that its total of imports increased. As implied, this formula excludes competition with imports from the other communist nations. However, this is hardly very restrictive under present circumstances of strong actual and potential deficits in hard currency - the communist nations, in fact, import all they can from the West anyway. Further discussion of MFN is found in Chapters VIII, IX and X.

Hard Currency Balance of Payments Problems

The Soviet Bloc nations have been steadily increasing their indebtedness to the advanced Western nations since East-West trade began to burgeon in the early 1960's. Their deficits with the West seem to be chronic, and this has raised credit policy problems which are confronted in a later chapter. Here we will concern ourselves with the identifiable causes of the deficits. Several factors, all stemming from central planning, appear to be responsible.

First, the communist nations have demonstrated that they are unable to compete in Western markets for most manufactured products. This is a serious disability since manufactured products constitute about 75 percent of the exports of nations as industrialized as they are. In fact, three-fourths of intra-bloc trade is in such products. By inability to compete we are not referring to price competition but rather to the fact that the products are of poorer quality, more poorly serviced, not well-adapted to the needs of the user where such adaptations are necessary, poorly packaged, badly advertised, embody obsolete technology, and so forth. Inability to compete in world markets stems partly from lack of practice because it is unnecessary for communist enterprises to compete either in domestic or intra-bloc trade. It is unnecessary to compete domestically because with overfull employment planning and sellers' markets, almost anything which is produced can be sold and because most intermediate products are not "sold" by one enterprise to another but are, in fact, "distributed" by plan. Under these conditions, management incentives to provide products of high quality, etc., are reduced. Much the same is true of intra-bloc trade. In fact, absence of feedback between user and producer is virtually guaranteed in intra-bloc trade by the fact, noted earlier, of having intermediary foreign trade organizations acting as go-betweens for the producer and user. To sum up not having to "compete" or "sell"

in from 90 to 99 percent of its markets, the average enterprise cannot "change its spots" for the last 1 to 10 percent¹.

Inability to "sell" for the reasons mentioned above is compounded by another feature of central planning, namely, backwardness in developing, introducing, and diffusing new technology. For the most part, this may be classified as another facet of inability to sell but it is so important and so central to recent Soviet bloc problems that it deserves special mention. Moreover, more than other "quality" deficiencies, technological backwardness not only inhibits exports, but it creates strong import requirements as well.

A second factor contributing to chronic hard currency problems is overfull employment planning (over and above the problems created by sellers' markets which result from it). As noted above, overfull employment planning leads to excess demand: at the going level of prices and given the targets plant managers face, demand exceeds supply. When demand exceeds supply in an economy, balance of payments deficits tend to be generated. This is because those whose plans are frustrated, seek commodities either through increasing imports or diverting potential exports to their own use. This type of behavior characterizes capitalist economies which are beset with inflationary pressures as a result of being close to full employment.

Third, unlike capitalist nations which can devalue their currencies to improve their balance of payments, the socialist nations are deprived of this useful policy tool by virtue of the fact that their exchange rates are not real prices, as explained earlier.

Fourth, there is some question as to how successful a devaluation would be even if the exchange rates were real prices which affected the terms of trade. For one thing, so long as overfull employment planning continues to be practiced, devaluation would provide only temporary relief and deficits would rapidly develop again. For another, there is some question as to whether low quality manufactures could be sold to the advanced Western nations at any price. It takes a "lot of price" to compensate for commodities which break down frequently, are ugly, can't be serviced conveniently, and the like. In the absence of overfull employment, devaluation would, of course, probably reduce imports.

Although devaluation cannot be implemented, it can be simulated on the export side (but not on the import side) by simply setting prices at below world prices. The foreign exchange earned by some products could certainly be increased in this way. With others, the demand would be too inelastic - lower prices would not be sufficiently rewarded with increased sales to make it worthwhile. Moreover, because of anti-dumping and anti-market disruption legislation on the books of many Western nations, there are many commodities which cannot be sold abroad at below-world prices.

East-West Joint Ventures, Coproduction Agreements, and so forth

The factors behind the hard currency difficulties of the CPEs have been among those responsible for the development of various East-West joint undertakings. Sufficient publicity has attended the proliferation of these joint undertakings over the past decade that lengthy introductions are hardly necessary. In the early postwar period, one would hardly have predicted such developments--not only cooperation between communist and capitalist enterprises but, in some

¹In an effort to combat this problem, some Soviet enterprises have been set up for the sole purpose of exporting. This could conceivably improve export performance much as the special treatment accorded enterprises specializing in production of weapons has had a beneficial effect on quality.

instances, even part ownership of communist enterprises by private capitalist companies. From a political standpoint, these joint undertakings required considerable bending of dogma. The willingness to bend dogmas as well as actual practice reflects the economic exigencies in which as the communist nations found themselves in the 1960's as described above. We refer here to the declining growth rates and to some of its causes, especially the general lag in technology; and also to the persistent hard currency deficits and its causes, especially problems in product-quality and marketing in the West. In effect, most of the joint undertakings have been attempts on the part of the East to remedy these deficiencies. Rumania, and Yugoslavia also allow the possibility for foreign enterprises to hold up to 49 percent ownership in the joint enterprise. Actually, ownership is not essential since most of the rights which might accrue to an owner with 49 percent of the stock are possible via contractual arrangement without ownership. The most important of these rights are: the rights of management, profit-sharing, and selling out.

Another important category of projects are those in which the Western partner takes care of marketing the Eastern nation's products. In most cases, the Western enterprise not only handles the marketing per se but also is involved in production since much of the marketing problem relates to having produced a product which, as it stands, is not marketable. So, in fact, the joint enterprise tries to adapt the product to Western markets and to improve its quality as well as supplying the peculiar skills and knowledge required to introduce a product, however saleable, into various Western markets. Still another important aspect of many of these projects relates to hard-currency financing problems. First, the purchase of licenses, technology, management expertise, etc., all cost hard currency. By arranging a joint project, the socialist nation insures getting a part of the investment from its Western partner. In other words, one dimension of a joint project is the medium, long term, or even semi-permanent credit extension involved. Second, the joint project provides for repayment in kind, thereby obviating the need to pay back in hard currency. This is especially true in the joint marketing schemes - in which part of the returns from sales of projects to the West goes to the Western partner. The most notorious instance of this kind is the proposed North Star Project in which the United States would be repaid in so much liquid natural gas per year for helping the Russians exploit Siberian natural gas reserves. Raw material projects like the above really do not perform a hard currency saving function but simply give that illusion. For, in fact, liquid natural gas, petroleum and many other raw materials are in short supply and can be sold for hard currency and high prices, now and in the foreseeable future. On the other hand, many of the other projects do reduce hard currency pressures by involving repayment in kind. Arrangements involving repayment in kind would undoubtedly substantially hinder negotiations under normal conditions; capitalists are used to being paid in currency and shy away from barter, which is an infinitely more clumsy way of doing business. However, with the capitalist world in the throes of inflation, taking payment in commodities is one way of hedging against future price increases. Should world prices ever stabilize, Western business may turn a jaundiced eye to the present practice.

Economic Reforms

The economic model described earlier in the chapter from which foreign economic behavior implications were deduced is essentially the pre-1957 Stalinist model of central planning. Domestic reforms were introduced into the Soviet economy in 1957, 1965 and 1973, but since these reforms were administrative and not economic, they did not change in any fundamental way either domestic planning or foreign trade behavior. Domestic reforms were introduced because

many of the shortcomings of central planning were becoming critical as the economy became more developed and more complicated: economic growth was slowing down markedly; consumers, now supplied with the necessities, were "fussier" and insisted on better quality and wider choice; the "visible hand" of the authorities became more and more unable to direct the economy efficiently as the numbers of products and enterprises multiplied, resulting in planning failures which generated increases in illegal and unplanned activities; the deceleration of growth focussed attention on short-comings in innovation and technological diffusion; as foreign trade intensified, bilateralism and inconvertibility became more constraining; and so forth.

The 1957 reform switched from an administration of planning based on ministries (industries) to one based on regions. The same problems cropped up in slightly different form since nothing basic had been changed, and the Kosygin Reforms were introduced in 1965. These switched back to ministries, attempted some very mild decentralization of power to enterprises and some mild reform of the pricing system. These mild reforms were literally drowned in the sea of central planning by direct controls into which they had been placed and came to naught. The 1973 reform combined related enterprises into so-called super-corporations thereby adding a bureaucratic link into the central planning chain. Like the 1957 reform, such administrative diddling was bound to leave the system and its problems basically unchanged, although with one possible exception: a closer link between R&D enterprises and super-corporations may have resulted than was the case when each R&D enterprise was presumably linked to dozens of individual industrial enterprises.

In sum, these reforms basically attempted to improve central planning with direct controls. The planners were left with the enormous job of planning and coordinating millions of outputs, prices are still irrational, plans are overtaut, managerial incentives are basically unchanged, and foreign trade behavior remains as described above.

While real decentralization and marketization a la Yugoslavia would undoubtedly change markedly Soviet foreign trade behavior, this does not appear to be in the offing. Should the USSR attempt more far-reaching changes than has been the case so far, it would probably go the Hungarian route. It is interesting, therefore, to look briefly at the Hungarian so-called New Economic Mechanism (NEM), begun in 1968, as a possible harbinger of the future. Hungary actually no longer has a detailed central plan with direct allocation of resources and intermediate products among enterprises. Further, many enterprises are free to set prices. Profits, not output or sales, are the goal of management and the basis of the system of monetary rewards. Many domestic enterprises deal directly with foreign enterprises. The state, in this system, presumably confines itself to major macro-policy issues such as rate of investment, military spending, distribution of income, and so forth. It also establishes "indicative" plans for industries which serve as guidelines but are not binding. Presumably, enterprises are free to determine their own output and prices and to buy and sell with whom they wish.

In fact, the system has not worked quite as planned. Inflationary pressures have forced the planners to control many prices. Further, the state has many ways of influencing enterprises: taxes, subsidies, licenses, granting of credits, and the like. These powers have been used fairly extensively to guide "indicative" plans, along the development lines envisaged by the government. Similar controls have been exercised in foreign trade. This was necessary because two-thirds of Hungary's foreign trade is still with the other socialist nations and is negotiated in large bilateral lateral meetings rather than by individual enterprises. So long as

this remains the case, it seems unlikely that market considerations can play an important role in Hungarian foreign trade.

In theory, the Hungarian system almost has the prerequisites for generating commodity convertibility, real exchange rates, and rational prices. Unfortunately, the economy is not quite free enough from government interference for this to be the case, despite Hungary's strong motivation to achieve these goals. Inflationary pressures plus necessity of conducting the bulk of its foreign trade on non-market terms with other socialist nations are among the more important obstacles.

The USSR has less interest than Hungary in trying to put its foreign trade on a market basis. This is because the USSR depends very little on trade, in contrast with Hungary which depends very heavily on trade. A legitimate question at this point is: why are the USSR and some of the other Eastern European leaders so loathe to introduce more radical reforms? There are several possible explanations, most of them political. First, there are undoubtedly many old-line economists in each of the Eastern nations who simply don't believe that market systems are superior to central planning with direct controls. Second, decentralization of economic activity would cause thousands of planners to lose their jobs and would remove power from the hands of hundreds of bureaucrats in different industries. These highly placed individuals undoubtedly have been fighting for self-preservation, which means preservation of the old Stalinist planning system. Third, the abortive Czech Reform of 1968 demonstrated the very close relationship between radical economic reforms and liberalization in political and intellectual life. This was why Warsaw Pact troops marched into Czechoslovakia and aborted the Reform in August 1968. The threat of another Czechoslovakia is one not taken lightly. Finally, radical reforms throughout the Bloc would destroy it as a relatively tightly knit economic grouping. This is because radical reforms would result in foreign trading by enterprises on the basis of market criteria rather than bilaterally binding trade agreements. Under these circumstances, East-West trade would increase rapidly at the expense of intra-bloc trade since Eastern demands for Western products are so repressed.

Soviet policy has been in recent years to allow some loosening of Bloc trading ties. However, it seems unlikely that Soviet leaders would countenance a sharp further reduction in these ties because of the loss of political cohesion that would undoubtedly accompany such an event. The political importance to the USSR of its trade ties with the Bloc are underlined by the fact that by and large the USSR foregoes economic gains to keep the ties alive.

Chapter IV: US-USSR Trade Potential and Gains from Trade

In this chapter, an attempt is made to gauge US-Soviet trade potential and also the mutual gains from trade. It is impossible to do a definitive study of these related subjects because the relevant economic theory is not perfectly quantifiable and also because one would need, in any case, much more data than are available. Nevertheless, it is helpful and useful, in trying to think about trade between these two nations, to have a simple sketch of the relevant theory and to try to apply that theory to the case at hand. We have also resorted to hypothetical calculations based on what appear to be reasonable estimates of some of the variables involved, to come up with ball-park approximations of gains from trade. Finally, we have pulled together data and empirical estimates by others in an effort to put realism into the analysis.

Comparative Advantage Theory

The maximum trade potential between 2 nations finally resolves down to the question of which and how many products each can produce and sell cheaper than the other nation. That is to say, in which products does each have a comparative advantage or disadvantage. The "maximum" is, of course, sharply reduced when the trade contributions of the rest of the world are introduced.

The determinants of comparative advantage are many. The most commonly-cited theory of comparative advantage is the factor proportions or Heckscher-Ohlin theory. According to this theory, different commodities require different proportions of basic factors of production--land, natural resources, labor, and capital--and different nations have these factors in different proportions. Those commodities requiring relatively large amounts of labor will be produced more cheaply by countries with a relatively large labor supply; analogously with commodities requiring large amounts of land and capital, respectively. A good deal of foreign trade is consistent with this theory. It is particularly obvious in the case of nations which have (or lack) rich natural resources. One hardly need explain why the Middle East exports petroleum and Canada and Australia food; equally obvious are British imports of food, cotton, and petroleum. It is worth noting here that climate and location can be viewed as part of natural resources and determining of comparative advantage or disadvantage in some products.

Despite its seemingly obvious truth, a famous study by Wassily Leontief concluded that US trade was not entirely consistent with the Heckscher-Ohlin factor proportions theory. As a result of this so-called Leontief Paradox, the nature of trade flows has been subjected to much further probing over the past two decades. The result has been that trade flows have been shown to be the result not of any single determinant like factor proportions but of many different economic causes, not all of which apply to the trade of each specific country.

In some studies, the labor forces of nations have been broken down into skill categories. It is shown that those nations which have large numbers of highly skilled workers and professional personnel tend to export products which

embody the efforts of this segment of the labor force. On the other hand, the exports of nations with lots of unskilled labor reflect this fact. With imports it is just the reverse. Analogously, exports (and imports) of nations reflect the kinds and levels of technology which they possess. Nations which are on the technological forefront have a comparative advantage in newer products as a result of their monopolistic position.

Eventually, the monopoly is eroded as other nations copy or license the new technology. Related to technology, it has been shown for the United States, for example, that among manufacturing industries, US exports are most successful in those products in which R&D expenditures are relatively large.

Trade among advanced industrial nations tends to deviate most from the simple factor proportions view of comparative advantage. Since many of these nations are approximately equal in factor endowment, endowment as such is not decisive. Much more important are differences in costs due to the differential degree to which economies of scale exist. In effect, one might even say that economies of scale based on international specialization often determine comparative advantage and trade flows. Which nation has economies of scale in which products may be largely a matter of historical chance rather than of any special capacity. Or, specialization may be based on tastes. So in the postwar period, Europe produced small cars and the US large cars and foreign trade took care of those with deviant tastes in their own countries.

Simple factor proportions is what might be called a supply-based theory. In order to round it out, demand factors must be taken into account. So, for example, looking just at "supply" one might argue that the US has a comparative advantage in petroleum production and should be an exporter. This was, in fact, the case for at least a half century. In recent history, however, our domestic demand has increased so rapidly that we are now a net importer. The same may soon be true also, of the USSR. So, it is not enough to produce something relatively cheaply to be an exporter--one must also be able, in the first instance, to supply one's own requirements, and then have something left over to export.

The factors mentioned so far are the forces which have tended to determine the flows of goods and services in world trade. Financial flows must also be accounted for, of course, particularly capital flows. A few brief remarks. First, investors will put their funds in a foreign country if the returns (profits, interest rates), after additional risks, are higher than at home. Such capital flows often accompany and are used in part to finance imports of technology, equipment, and management. On the other hand, much capital flow--so-called portfolio investment--is purely financial, not specifically related to the actual operation of enterprises in other nations, but rather to shorter-run factors connected with size of dividends, risk factors connected with political and economic stability, fears of devaluation, and so forth. Finally, capital (and reserves) also flow from surplus to deficit nations simply to finance trade imbalances.

The factors which have been mentioned above all tend to apply to communist as well as to capitalist nations. The structure of trade of communist nations is determined in part by relative proportions of factors, labor force skills, availability of natural resources, tastes, and so forth. Trade flows of these nations are also affected, however, by the very nature of central planning itself and by political factors relating to the formation of the CMEA bloc.

Let me describe the impact of political factors first. Political factors affect the trade of all nations, of course, but not quite as dramatically as in the case of the CMEA nations. The major impact of politics on CMEA trade was to redirect it from its former channels, mostly with Western Europe, to an overwhelming concentration of trade with each other. While roughly 15 percent of the present CMEA nations' trade was with each other before World War II, this percentage had risen to approximately 75 percent by the early 1950's. The shift was due in large part, of course, to the Cold War. In particular, led by the US, a whole string of Western export and credit restrictions were introduced which sharply reduced East-West trade from the Western side. At the same time the Soviet Union, in order to gain greater political and economic control over its newly acquired "Bloc," was largely responsible for the diminution of East-West trade on the Eastern side.

What were the implications of this shift for the commodity structure of trade and for specialization? The major implication was that each CMEA nation now had to obtain from other CMEA nations or produce for itself many products which formerly had been imported from Western Europe the United States and other nations. This shift was relatively easy, initially, for the USSR because of its relative economic isolation in the last half of the 1930's but was much more difficult for the smaller nations of Eastern Europe. The result was that all of the smaller eastern nations attempted to and did become more self-sufficient than they had been in the past. This was evidenced by the considerably smaller trade to GNP ratios which characterized their economies particularly in the first decade after World War II. Further, all nations including the USSR adapted themselves to meet each others' needs to the extent that this was possible. Czechoslovakia, for example, which had not particularly specialized in exporting machinery and equipment in the interwar period, began to produce a very wide variety of such products in order to meet the requirements of the USSR. The USSR, for its part, exported machinery and equipment to less developed nations of the Bloc. Primarily, however, the USSR took over the role of major raw material and grain supplier to most of the other CMEA nations.

The USSR has never relished these roles, particularly that of raw material supplier. In the early years, its reluctance was due to the fact that expansion of output to meet CMEA needs required major capital-intensive investments in a period when capital was scarce and needed to achieve domestic goals. More recently, as is well-known, the rise in world prices of raw materials) particularly of petroleum and natural gas, has sharply increased the cost in hard currency earnings to the USSR of continuing to be the major bloc supplier. Supplying grain to CMEA has also become costly in hard currency terms to the USSR as rising internal demands plus a series of bad crops has involved substantial and continuous imports from the West.

The impact of central planning on trade flows has been just as profound as the political forces mentioned. Further, whereas the political factors tend to distort trade from its most profitable channels as indicated by comparative advantage, central planning by direct controls has had the effect of changing comparative advantage itself. The ways in which this has happened were suggested in Chapter III. Reference is made to the relatively poor quality of CMEA manufactured products and to difficulties experienced in developing and

diffusing new technologies. Given their levels of development, the more advanced of the CMEA nations should be producing higher quality manufactured products and should be developing and diffusing new technologies at a more rapid pace. They have the capacity to do it. The USSR has proved, many times, in the military and aerospace industries, that it can keep up with the best in the world. Many other instances of excellence and superiority can be cited (e.g. ferrous metallurgy, medical instruments, high voltage power transmission).

Further, R&D expenditures in the Bloc nations are at high levels. Yet on an overall basis, performance is lacking. Soviet factories undoubtedly produce most products as cheaply and efficiently as Western factories. Price does not appear to be a problem. Yet the products are, for the most part, of poorer quality! Not only poorer quality, *per se*, but poorer servicing, packaging, advertising, adaptation to consumer special requirements, and the like. In the broadest sense, these deficiencies undoubtedly stem from the fact that production takes place in a non-competitive environment. This environment is due, in turn, to the facts that products are "distributed" by plan rather than "sold" and to the sellers' markets which predominate for most products. Problems relating to obsolescent technology similarly have their genesis in the organization of planning. Two major factors can be cited. First, plant managers have little incentive to introduce new technology because of prevalent structure of rewards. Second, the link between the R&D organizations and producing units is very tenuous.

What implications do these factors have for comparative advantage and for trade? As noted earlier, a large part of the trade of more advanced nations results from specialization in manufactured products. Such specialization may be either interindustrial (trucks for chemical fertilizers) or intra-industrial (small cars for large cars). As noted, almost three-fourths of the intra-trade of advanced Western nations is of this type. A similar percentage of intra-CMEA trade is in manufactured products. However, the operation of this form of comparative advantage is to a considerable extent thwarted in East-West trade although a certain amount of such trade does, of course, take place. Western consumers (users) do wear Soviet watches, use Soviet tractors, employ Soviet technology in the production of steel, use Soviet technology in hospital operating rooms, and so forth. Nevertheless, the flow is relatively one-sided. The flow should, of course, be somewhat one-sided especially in technology because the most advanced Western nations are more advanced than any of the CMEA nations. Further, technology is not an activity in which any nation is likely to be close to self-sufficient--as is almost possible in resources. Since the advanced Western nations represent a larger aggregation of technology developers than the eastern) a net flow of technology from West to east would occur even in the event that all other things were equal.

So, the situation is one in which the CMEA nations are capable of producing high quality manufactured products and of developing their fair share of new technology--but do not for systemic reasons. The absence of a competitive milieu leaves them with less than the usual incentives to "sell," improve quality, package, service, improve and diffuse technology, and so forth. Comparative advantage theory is usually couched in terms of "costs" since comparative costs have usually been the crucial variable in determining trade flows with the operation of other factors (marketing, servicing, etc.) not distributed among

nations in any particularly systematic or biased way. The centrally planned economies, however, are an exception to this general assumption. They have a systemic and systematic comparative disadvantage in many of the non-cost dimensions (noted above)-of products traded among nations. As a result, in East-West trade the flow of manufactured goods and of technology is primarily from West to East. Another consequence, (only partly attributable to this factor), is the persistent deficit (or pressures for a deficit) experienced by the Eastern nations in East-West trade. Unable to devalue their currencies to get into "equilibrium," they continue to try to trade at world terms of trade and without success.

Under the circumstances described just above and in Chapter III, Western theory would ordinarily predict that there would be substantial capital flows from West to East--including both direct and portfolio investment and, in addition, flow to accommodate the balance of payments pressures which exist. Such capital flows have developed. However, they have been seriously impeded by systemic factors. Direct investment, per se, is actually forbidden in all of the CMEA nations, of course. That is to say, no Western investor can have a controlling share of ownership in a CMEA enterprise. In fact, it is only possible for a Western investor to hold equity at all in Romania and Hungary, and in these nations the equity is limited to 49 percent. Further, until this time (1980), almost no instances of equity--i.e. true joint ventures--have been allowed. This legal ideological impediment has not been absolute, however. Interest on both sides has led to types of accommodation which in effect has permitted the equivalent of Western direct investment without true equity. As a substitute for equity, the communist nations have contractually guaranteed Western partners shares in profits, management control, and other rights which normally inhere in ownership. The same factors which impede direct investment, impede portfolio investment as well. While controlling ownership in a communist enterprise is absolutely forbidden, there is very little opportunity for Western investors to acquire any equity in the nationalized enterprises of the East. Basically, there are virtually no financial markets at all in these nations in which Western investors might put funds if they so desired.

Two other factors which have reduced capital flows from West to East should be mentioned. First, 25 years of cold war prevented most Western investors from even considering the possibility of investing in the East. This impediment was compounded, of course, by the antipathy of communist nations to private enterprise. Second, the eastern hard currency shortages and currency inconvertibilities raised serious questions regarding the ability of these nations to repay loans (see Chapters V and VI). It is because of this situation that repayments on loans and investments are often arranged in commodities rather than in monetary form. This type of "barter over time" may ameliorate the situation but certainly does not eliminate its negative effects on capital flows.

US-USSR Factor Proportions

Some of the major economic and systemic factors determining international trade and investment flows have been outlined above. Let us turn to the data to see what, if anything, is revealed.

While, as noted above, overall factor proportions (labor, capital, natural resources) do not determine the specific nature of trade, they are nevertheless

worth examining. Table IV.1 contains comparisons between the two nations for 1975. Appendix Tables IV.1 and IV.2 contain data put together by Professor A. Bergson for 1960 which include some comparisons not attempted here for 1975.

The data for 1975 show that the USSR has a larger population and more land than, but a capital stock similar in size to that of the United States. The larger Soviet population actually results in a relatively even larger labor force since a larger proportion of the population works in the USSR (53.5%) than in the US (44.3%). On the other hand, in terms of educational equivalents, 1960 estimates (Appendix Table IV.1) show that the US labor force was better trained and, therefore, probably more effective. The difference in training, however was not adequate to offset the much greater size of the Soviet labor force. The quality of Soviet cultivable land is also below that of American land (Appendix Table IV.1). The difference here is more substantial than in the case of labor and the result was that while the USSR had 53 percent more actual land in cultivation than the US in 1960, in terms of equivalent units, that land was estimated to be only 77 percent of the American total. Presumably, this same situation holds for 1975. The lower value of Soviet land for cultivation is due to poorer soil quality and climate (colder, shorter growing seasons, less precipitation). These various factors may be partly responsible for the fact that Soviet agriculture is much more labor intensive than American with 5 times as many workers per acre--or more if private Soviet farmers are taken into account.

Table IV.1
Factor Endowments - US and USSR, 1975

	<u>USSR</u>	<u>US</u>	<u>USSR/US</u>
Population (mns)	254	214	1.19
Labor force (mns)	136	95	1.43
Labor force/population	.535	.443	1.21
Farm labor force (mns)	24 ¹	3	8.0
Cultivated land (msn acres)	555	351	1.58 (for 1974)
Cultivated acres per worker	23.1 ¹	117	0.20
Net fixed reproducible capital	--	--	0.98-1.1 ²
Capital per member of labor force	---	---	0.68-0.77 ²

Sources: population, labor force: Handbook, 1978, pp. 38-39.
 farm labor: USSR Narodnoe kholozhniko, - 60 let, p. 376.
 US Statistical Abstract, 1977, p. 407.

cultivated land: USSR - Johnson, p. 10.
USSR - Carey, p. 578.
 US
 US - derived from other two.

capital: Extrapolated from Bergson's ratio in Appendix Table IV.1.
 Soviet extrapolation based on Handbook, 1978, p. 46.
 US extrapolation based on Statistical Abstract, 1972, p. 337,
Statistical Abstract, 1977, p. 466.

Surprisingly, as of 1975, the USSR is estimated to have had a capital stock of

approximately the same size as that of the United States, although as pointed out in Table IV.1, note (2) this may be partly a statistical illusion. However, it can't be too far off because, since 1960, at which time the Soviet capital stock was roughly 40% of ours, they have been investing over 30% of their GNP whereas our investment rate has been less than 15 percent. However, even if the Soviet capital stock is as large as ours, it is, in effect, "relatively" smaller since it is spread among a larger labor force and therefore each Soviet worker has considerably less capital to work with than his American counterpart (Table IV.1). Undoubtedly American superiority here is even greater than suggested by these estimates because of the much higher quality and technology embodied in much American capital. The quality differentials in all factors--land, labor and capital--are suggested in the 1960 data where the USSR requires from 1.70 to 3.05 times as many inputs per unit of output as the US (Appendix Table IV.2).

What do these factor proportions suggest regarding US-USSR trade opportunities? Primarily, that the US should have a comparative advantage in products which are capital-intensively produced whereas the USSR should have a comparative advantage in those which require labor-intensive production. With more "effective" units of land under cultivation and a smaller population, the United States can be deduced to also have an advantage in food production or at

least a greater surplus for export. This does not necessarily mean that the USSR will import food from the United States (which it has in fact been doing recently). Viewed in a multilateral context, the USSR could have a comparative advantage in food production vis-a-vis much of the rest of the world and, in normal years, be a net exporter of such products (but see below).

Before going further, one might well question whether or not it is at all reasonable to expect centrally planned economies to conduct their foreign trade according to economic principles (like the Heckscher-Ohlin theory) derived from theories regarding the behavior of market economies. This question has particular force in light of the fact, noted earlier, that even US foreign trade does not conform to a simple Heckscher-Ohlin formulation. Fortunately, an empirical study of postwar Soviet foreign trade designed to answer this very question was conducted by Steven Rosefielde (1974). He found that Soviet foreign trade largely conformed to Heckscher-Ohlin predictions. For example, for the period 1955-1968, Rosefielde found that Soviet capital/labor ratios in exports were lower than those in imports in trade with advanced Western nations and higher in trade with the LDC's. That is to say, exports were relatively capital-intensive and imports labor-intensive with the LDC's and just the reverse with the advanced

¹Soviet farm labor force includes workers on state and collective farms but excludes private farmers.

²For explanation of range, see Note 2 to Appendix Table IV.1. Because the extrapolation are based on dollar estimates for both the US and USSR, both ratios are probably too high.

industrial nations. (Export and import capital/labor ratios with CMEA, on the other hand, were about equal.) Similar results were achieved on a country-by-country basis. Assuming that as per capita income rises, a nation's capital/labor ratio rises, ranked the USSR's trade partners by per capita income. He found that with nations having a higher per capita income, the USSR tended to import capital-intensively and export labor-intensively, the reverse holding true for trade with nations having lower per capita incomes whether capitalist or communist.

Rosefielde's results seem a little hard to square with the discussion in Chapter III of the irrationality of Soviet prices. How, given these prices, could the USSR possibly choose the right products to export and import? The fact is that domestic prices have not been relied on in making foreign trade choices. A study by the present writer (Holzman, 1974, Chapter X) demonstrated, that, often products have been imported at much higher than the domestic prices, and others have been exported at great apparent losses. In fact, the planners realize that their domestic prices are not rational and often make special calculations or notional adjustments to these prices in an effort to determine true import and export profitability. Apparently, these efforts are at least partially successful.

The upshot of Rosefielde's study, then, is that despite the extensive micro-irrationality of the Soviet price system and its economy, its commodity pattern of foreign trade nevertheless seems to have a basic macro-rationality in the sense of the Heckscher-Ohlin theory. This still does not necessarily preclude micro-irrationality in foreign trade. So, for example, while the Soviet Union should be, and is, exporting capital-intensive products to the LDCs, they may be exporting products in which they are inefficient producers (for reasons other than factor-proportions) and from which little or no gain is extracted. Macro-rationality, then, is consistent with either micro-rationality or micro-irrationality in foreign trade.

Assuming macro-rationality in trade, what can be said about potential trade between the US and USSR? Perhaps the only obvious conclusions are that the US has a comparative advantage in land, capital, and technology-intensive products whereas the USSR has a comparative advantage in labor- and resource-intensive products. Our statement regarding technology- and resource-intensive advantages is based, of course, not on the data presented above but on the very generally accepted view that, with the exception of a few industries, the United States is far ahead of the USSR technologically; and the equally obvious fact that the USSR is much richer, relative to its domestic requirements, than the US in natural resources.

Studies by both Soviet and US economists of ruble-dollar ratios to some extent support the conclusions just mentioned above, and also reveal a wide range of trade possibilities at the less aggregative level. Ruble-dollar ratios are based on price comparisons in the two countries. Suppose, for example, that the prices of comparable automobiles were \$4000 and 8000 rubles and that prices of comparable caviar were \$6 and 2 rubles. The ruble-dollar ratios for automobiles and caviar would be 2 and .33, respectively. That is to say, in the case of automobiles, it takes 2 rubles to buy as much as \$1 whereas in the case of caviar, 1 ruble buys as much as \$3. Clearly, the US has a comparative advantage in automobiles and disadvantage in caviar whereas the reverse is true for the

USSR. (We assume, of course, that Soviet (and US) prices properly reflect the cost of resources in each nation, an assumption which may well not be very accurate for the USSR.) Suppose one had ruble-dollar ratios for all potential tradeables and computed a weighted average of these. The average ruble-dollar ratio would represent a kind of purchasing power parity of the two currencies and, under stringent assumptions (like no capital flows), this could be assumed to be roughly equivalent to an equilibrium exchange rate. Under these circumstances, products with ruble-dollar ratios below (above) the average would be ones in which the USSR has a comparative advantage (disadvantage) vis-a-vis the US.

Table IV.2 presents the results of some Soviet studies of ruble-dollar ratios for 1963. The main Soviet comparative advantages appear to be in glass, ferrous metallurgy, machine building and metal working, and fuels. Comparative disadvantages are revealed in agriculture, light and food industries and electric power.

Further disaggregation produces even a wider range of ruble-dollar ratios as revealed in Table IV.3 which summarizes Becker's study of producer durables for the year 1955. This study, which covered over five hundred producer durables, shows a range which varies at the extreme from .03 to 2.41 and which averages 0.69. Undoubtedly some of these ratios are now out of date. For example, it appears highly probable that considering the Soviet import of technology and much larger scale of operation today than in 1955, that the ruble-dollar ratio in motor vehicles is presently much lower (less disadvantageous) than it was then. Nevertheless the wide range for the group as a whole undoubtedly still exists. Given such a wide range with some products two and three times the average and others one-half to one-third the average, there is undoubtedly considerable potential for US-USSR trade. This statement must be modified, of course, for the fact that either nation may export (or import) obvious tradables to (from) third nations rather than each other. Further, as we have already noted, the USSR may be able, to produce products cheaper than Western competitors but still not be able to export them to the West because of many non-price factors which reduce sale-ability.

To return for a moment to Table IV.2, it is interesting to note that, as of the early 1960's, to which the data apply, the USSR was a net exporter of agricultural products (with the exception of drought years like 1962-63) and of electric power. This must be viewed as motivated largely by political-military rather than economic factors. Clearly, it would have been cheaper, particularly in the case of agriculture, for the USSR to have imported from the West. However, the export of grain and power to the other CMEA nations, not to mention independence from the West, in these areas was important for political and military reasons, if costly and uneconomical. On the other hand, the USSR is an exporter of fuels and of ferrous metallurgical products and an importer of chemical products--thereby following the dictates of comparative advantage.

Table IV.2
Soviet Calculated Ruble-Dollar Ratios, 1963

	Soviet Weights	US Weights
Ferrous metallurgy	.56	.57
Fuels	.65	.50
Electric power	1.00	1.00
Machine-building & metalworking	.57	.67
Chemical industry	.84	.99
Woodworking and paper	.88	1.16
Construction materials	.80	.86
Glass industry	.48	.53
Light industry	1.48	1.51
Food industry	.90	1.00
Agriculture	1.49 - 1.83	1.75 - 2.38
Oil refining	.66	.66

Source: U.S. Dept. of Commerce, Soviet Studies on Ruble/Dollar Parity Ratios (Foreign Economic Reports) Nov. 1973 (study done by Vladimir G. Treml and Daniel M. Gallik). Most of the ratios from p. 27. Agriculture from pp. 2 and 16.

Table IV.3
Ruble/Dollar Ratios for Producer Durables, 1955

	Weighted	Range	
	Average	Low	High
Steam engines & turbines	.15	.06	.2
Internal combustion engines	1.09	.42	2.09
Tractors	1.09	.2	2.24
Farm machinery	.47		
Construction, mining & oil field machinery	.38	.05	.87
Metalworking machinery	.37	.12	1.35
Special industry machinery	.26	.05	.86
General industrial machinery	.37	.03	.96
Electrical industrial apparatus	.28	.03	1.23
Commercial and X-Ray equipment	1.81	.24	2.41
Motor vehicles	.86	.34	2.28
RR equipment	.48	.17	.54
Professional & scientific equipment	.38	.07	1.65
All	.69	.03	2.41

All excl. 1 type in communication & X-Ray .57

Source: Abraham Becker, Pieces of Producers' Durables in the United States and the USSR in 1955, RM-2432, Rand Corporation, 15 August 1959, p 26.

Note: These ratios were reduced to one-tenth of those calculated by Becker for comparability with the data in Table IV.2. This was done to take account of the Soviet price reform in Jan. 1961 which reduced all prices to 10 percent of their previous levels.

One might wonder why there should be such large discrepancies in ruble-dollar ratios within, say, the area of producer durables. Why should the relative abilities of the two nations to produce various products have differed so greatly from product to product? Two major possible explanations have been offered. First, while US technology typically is more advanced than Soviet, the difference between the nations will vary from commodity to commodity. These differences may be partly random but also partly related to Soviet policies. For example, the ruble-dollar ratio in 1955 was .11 for electrical control apparatus (not shown in Tables IV.2 and IV.3) but close to 1.5 for products of light industry. Undoubtedly, the relatively low ratio for the former reflects in part the priority accorded by the Soviet Government to defense- and growth-related industries whereas the high ratio for light industry products reflects the lack of priority accorded to consumer goods (Boretsky, p. 203). Second, ratios will differ as a result of different scale of operation in different industries (Becker, pp. 47-48). A gross example of this is in motor vehicles where, in 1955, US output exceeded Soviet output dozens of times over and whereas US vehicles were undoubtedly being produced at a very efficient scale, this could not have been true of Soviet vehicles. Differences in technology also probably played a role in this industry. With other products, the USSR may produce on a larger and more efficient scale. This is certainly true of many types of machine tools and may be responsible for the relatively favorable (low) ruble-dollar ratio in "machine-building and metal working" (Table IV.2).

Relative prices as dictated by factor endowments, scale of operation, technology, and so forth, suggest many possibilities for mutual trade between the US and USSR. Differences in technological levels also provide a basis for future trade, particularly exports by the United States, which cannot be documented in terms of product prices. As noted, the USSR is technologically behind the US and other advanced Western nations in most industries. Prices of "technology," however defined or traded, are usually unique and not comparable unlike prices of ordinary goods and services which comprise the bulk of world trade. Are there indicators which would enable one to predict flows of technology between the US and USSR in the way that differential product prices suggest possible flows of goods? Several possibilities suggest themselves. The most obvious one is that, all other things equal, the purchase of technology will have the greatest impact in those industries in which the USSR lag is greatest. All other things are not equal, of course, and it is not clear that the gains from overcoming technological lag are proportional to the length of the lag. In part, the relationship between gain and lag would depend on how lag were defined. (Lag might be defined in terms of gain.) The gain from new technology will also depend on the price which has to be paid for it. Pricing the technology is sufficiently idiosyncratic that a large potential gain may be offset if a seller's reservation price is very high.

Still another factor which has to be taken into account is the ability of the purchasing nation (USSR) to generate new technology in different areas. While the technological lag might be greater in A than in B, existing Soviet scientific and technical skills might be superior in A, dictating import of technology in B.

A second major set of factors determining the focus of technology flows are

state priorities at particular historical times. These priorities are planners' priorities and not necessarily coincident with those of consumers. What this means is that the gains or profits as would be measured in the West (usually) from overcoming technological backwardness do not necessarily provide the standard for determining in which industries imports (or indigenous developments) of technology are likely to occur. So, for example, while light industry appears to be particularly backward in the USSR, it is unlikely that either imports of technology or substantial amounts of domestic R&D resources will flow in this direction in the near future. On the other hand, at any time the authorities may decide in favor of a big push in light industry and the picture would change completely. The enormous Fiat project begun a decade ago is an example of such an unpredictable change of direction.

An attempt has been made above to demonstrate that there is a substantial bilateral basis for trade between the United States and the USSR. The extent to which these potentialities have been realized has been miniscule, of course. The amount of possible US-Soviet trade is overstated in the above presentation because we ignore the rest of the world as possible buyers and sellers of to each of our two protagonists and because the great distance between the two nations acts as a further natural impediment. Both nations have easier physical access to many other large world markets. Still another factor reducing US-Soviet trade is the greater degree of trade barriers (including credit restrictions) between these two nations than between either nation and most other nations. In effect, the two nations discriminate against each other. In Chapter II we outlined the various controls employed by the United States which serve to reduce both exports to and imports from the communist nations. The other advanced Western nations also employ controls but these have always been less severe than our own. Therefore, much trade with the USSR and Eastern Europe which might have been transacted with the United States went to Western Europe and other nations instead. The USSR likewise discriminates against the United States and other Western European nations and in favor of trade with its CMEA partners. Were there no Eastern and Western political "blocs," East-West trade would undoubtedly be double or more its present size. This generalization undoubtedly applies to US-Soviet trade.

US-Soviet Trade: Actual and Potential

In the preceding pages, an attempt has been made to suggest in a qualitative way the fact that possibilities for substantial US-Soviet trade do exist and then to qualify these possibilities by pointing out the impediments. Another approach is to look at the actual levels of US-USSR trade and to extrapolate future possibilities by considering, among other things, the implications of removing the manmade barriers to that trade, an unlikely possibility in the near future in view of the Soviet invasion of Afghanistan. Tables IV.4 and IV.5 below, summarize some major categories of US-Soviet exports and imports for 1974.¹

They also contain categories in which there was not much actual bilateral trade in 1974 but in which there is a potential for trade as evidenced by the fact that both nations have considerable trade in them with all other nations (US) and with the industrialized West (USSR). The dozen or so categories of commodities presented in each of the two tables comprise close to 90 percent of the bilateral

trade which amounted to \$612 million of US exports and \$250 million in imports in 1974. Narrowing down still further, about 80 percent of US exports fall into just two categories: cereals and non-electrical machinery. Similarly, two categories--petroleum and products and non-ferrous metals--account for about 80 percent of US imports from the USSR. Total US-USSR trade represented a very small fraction of US trade in 1974 whose total exports and imports were each in the neighborhood of \$100 billion. This is reflected in the low percentages in col. 3 of Table IV.4 and col. 5 of Table IV.5. Cereals, our largest category of exports to the USSR amounts to only 2.7 percent of our cereal exports in that year. Non-electric machinery, next largest, amounts to only 1.1 percent. Our dependency on specific imports from the USSR is only slightly larger: 4.8 percent of non-ferrous metal imports and 3 percent of hides, skins, etc. come from the USSR, with all other categories falling below 1 percent. Mutual trade is somewhat more important to the USSR. Soviet exports and imports in 1974 amounted to roughly \$25 billion each of which roughly \$8 billion was with the Industrial West. So, it turns out that while cereal and non-electric machinery exports are only 2.7 and 1.1 percent of American exports, they amount to 76.3 and 11.3 percent of Soviet imports from the West. The corresponding relationship for individual Soviet export items is shown by comparing cols. 3 and 5 in Table IV.5. So, non-ferrous metal exports to the US amount to 22 percent of Soviet exports to the IW but only 4.8 percent of US imports. The figures for hides, skins, etc. are 6.9 and 3 percents; for metalliferous ores and metal scrap, 5.4 and .7 percents, and for petroleum and products, 4.8 and .4 percents.

We have stressed the relative unimportance of US-USSR trade in the figures just presented. This relative unimportance underlines the potentialities for a much greater absolute value of trade. Thus, col. 3 of Table IV.4 indicates clearly that greater Soviet demand could easily be met by diverting US exports from other sources. More realistically, perhaps, such demands could also be met by an expansion of output or diversion from domestic use. Col. 5 suggests the great possibilities for the Soviet Union to substitute additional US supplies for those from other countries toward the USSR. The major opportunity would appear to be in "machinery, nonelectric," an item in which the US is a very large exporter, the USSR is a large importer, yet it imports most of this category from other industrialized Western countries. Cereals are, of course, also a great opportunity, as the history of US-Soviet grain trade has already revealed (below).

Similar conclusions follow from Table IV.5. With the possible exception of non-ferrous metals, col. 3 demonstrates that the USSR could shift exports from other sources (if not from domestic use or greater output) to meet increased US demand. From col. 5, we see that the US could, if conditions warranted it, easily buy more from the USSR of all categories by shifting its purchases from other sources. For no product does the USSR supply more than 5 percent of US import demands. The major possibilities for substantial expansion would appear to be in: wood, lumber and cork; petroleum and products; and non-ferrous metals. However, in the case of the first two, markets are probably easy enough to come by that the USSR may have little incentive to try to sell to the US; further in the case of petroleum, as will be demonstrated below, Soviet exports to the West may soon dry up.

¹These tables and much of the discussion is taken from Elias, 1976.

Another approach to estimating trade potential is to assume, as was suggested in Chapter II that the US share of Soviet trade in different groups of products would be equal to its share of the exports of these same products by 14 leading industrial nations to the rest of the world--if US discriminatory trade controls were removed. Table IV.6 presents calculations by the US Dept. of Commerce along these lines for major trade categories. Looking at cols. (1) and (2) for chemicals, for example, we see that US exports total .1228 of those of major industrial nations, in general but only .0394 of those going to the USSR. Hence, our potential exports are \$87.4 million in comparison with actual exports of \$28 million. Leaving aside the case of food exports, which have their own special dynamic, we see that our potential exports are almost double that which has been achieved (\$626.5 vs. \$320.6) and that categories 5,6,7 seem to offer the most possibilities for expansion.¹ Worksheets containing more detailed breakdowns (3 digit SITC categories) were also prepared. These suggested, for example, that the United States might triple its exports to the USSR of organic materials, office machines, textile and leather machinery, and so forth. The aggregate picture yielded by these data was of the same order of magnitude as that provided in Table IV.6.

A technique similar to that described above was used to estimate and project potential US imports from the USSR (Elias and Searing, 1974). The major example of US relative under-importing is in Petroleum and Petroleum products--and this category constitutes about one-third of the difference between actual and potential. No other commodity or commodity group among the more than 25 leading candidates, by itself, can make much difference by this method of estimate.

Before leaving these estimates, it is worth noting that both those for exports and imports are biased downwards for two reasons. First, they assume that IW trade with the USSR is free of discriminatory controls, which is not the case. Second, they assume that the percentage of Soviet trade with Eastern Europe will not change - in fact, it will probably decline still further. However, none of these estimates is far enough out of the ballpark to change the facts that Soviet trade with the US is unlikely to exceed, by much, 1 percent of US trade and 0.1 percent of US GNP; and Soviet trade with the US is unlikely to exceed, say, 3-4 percent of Soviet trade and .4-.5 percent of its GNP. Finally, comparison of potential exports and imports suggests that the USSR is likely to continue to run a strong bilateral balance of payments deficit with the United States.

¹Actually, the Bureau of East-West Trade of the Dept. of Commerce makes other and more complex projections. For example, on the same data sheets cited in Table IV.6, they project trends, based on actual and potential trade from 1969 to 1974, into the future through 1982. These projections yielded a sufficient number of anomalous results that they were not included here.

While little more can be done at the micro-level with projecting bilateral trade possibilities in specific industries without a mountain of investigation, there are at least 4 major possibilities of increased trade, politics allowing, which deserve further attention. These four are the export to the USSR of grain and of advanced technology in some form or other, and import from the USSR of petroleum and natural gas. We have already indicated the great comparative disadvantage that the USSR has in agriculture. This is due in part to the very poor organization of Soviet agriculture. But it is also due to climatic factors. As one expert has put it: "...The Soviet Union has no large agricultural area comparable to either the American corn belt or cotton belt. Where there is adequate moisture, it is too cool; where it is warm enough, it is too dry..." (Johnson, p. 15). Despite these facts, the USSR was, until 20 years ago, a regular exporter of grain. In fact, as noted in Chapter II, grain export; the same was true of the early 'thirties. After World War II, the USSR's exports of grain went mainly to other members of CMEA, several of which were and are chronic net importers.

The USSR lost its perfect record as a net exporter in 1963/64 when, in the aftermath of the very bad 1963 harvest, it was forced to import some 6 million tons of grain in 1963 and another 10 million tons in 1964. The Soviet Union has always had wide crop fluctuations due to climatic factors. In the past, shortfalls had been absorbed through reduced consumption. Reducing food consumption is no longer a politically feasible policy either in the USSR or Eastern Europe; hence, shortfalls lead to imports¹ -- primarily from Canada, Australia, and the United States, the big grain exporters. The crop failures of 1972 and 1975 led to even larger grain imports. In fact, the Soviet imports related to these two crop failures amounted, in each case, to more than one-fifth of world exports.

¹Discussed in Chapter IX, part IV.

Table IV.4

US Exports - USSR Imports: Selected Commodity Groups - 1974

(In millions of US dollars)

<u>SITC Categories</u>	(1) <u>Total US Exports</u>	(2) <u>US Exports to USSR</u>	(3) <u>(Col. 2 / Col. 1) x 100</u>	(4) <u>USSR imports from IW</u>	(5) <u>(Col. 2 / Col. 4) x 100</u>
01 Meat and meat preparations	381	0	0.0	75	0.0
04 Cereals and cereal prep.	10,331	278	2.7	364	76.3
26 Textile fibers & their waste	1,782	3	0.2	42	7.3
51 Chemical elem.,; compounds	3,618	14	0.4	287	5.0
53 Dyes, tanning, color prod.	304	1	0.2	58	1.2
58 Plastic materials, etc.	1,618	8	0.5	250	3.0
61 Leather, dressed, furs, etc.	164	1	0.9	45	3.2
65 Textile yarn, fabric, etc.	1,795	6	0.3	311	1.9
67 Iron and steel	2,560	8	0.3	1,947	0.4
71 Machinery, non-electric	16,669	188	1.1	1,663	11.3
72 Electric machinery	7,019	28	0.4	293	9.4
85 Footwear	28	0	0.0	21	0.0

Source: Elias, 1976.

Table IV.5

US Exports - USSR Imports: Selected Commodity Groups - 1974

(In millions of US dollars)

<u>SITC Categories</u>	(1) <u>Total US Exports</u>	(2) <u>US Exports to USSR</u>	(3) (Col. 2 / <u>Col. 1) x 100</u>	(4) <u>USSR imports from IW</u>	(5) (Col. 2 / <u>Col. 4) x 100</u>
21 Hides, skins and fur skins (undr.)	69	5	6.9	156	3.0
24 Wood, lumber and cork	1,029	0	0.0	1,105	0.0
26 Textile fibers & their waste	350	0	0.0	225	0.0
27 Crude fertilizers and crude minerals	191	1	0.8	438	0.3
28 Metalliferous ores and metal scrap	228	12	5.4	1,838	0.7
33 Petroleum and petroleum products	2,133	103	4.8	24,210	0.4
41 Animal oils and fats	3	0	0.0	10	0.0
42 Fixed vegetable oils and fats	145	0	0.0	100	0.0
52 Coal, petroleum, etc. chemicals	6	0	0.0	10	0.0
56 Fertilizers, manufactured	59	1	2.5	560	0.3
68 Nonferrous metals	837	187	22.3	3,925	4.8

Source: Elias, 1976.

Table IV.6
US Exports to the USSR, Actual and Potential, 1974

<u>SITC Categories</u>	(1)	(2)	(3)	(4)
	<u>US Exports to USSR IW Exports to USSR</u>	<u>Total US Exports Total IW Exports</u>	<u>US Exports to USSR (\$ millions)</u>	
			<u>Actual</u>	<u>Potential</u>
0 Food and live animals	.5706	.2842	287.0	102.7
1 Beverages and tobacco	.1382	.2306	0.7	1.2
2 Crude materials except fuel	.1973	.3027	24.9	38.2
3 Mineral fuels	.1620	.1616	1.3	1.3
4 Animal and vegetable oils and fats	.0*	.2104	0.0	1.2
5 Chemicals	.0394	.1228	28.0	87.4
6 Manufactures	.0106	.0597	27.4	153.2
7 Machinery	.1089	.1535	225.0	317.1
8 Misc. manufactured goods	.0619	.0948	12.5	19.2
9 Commodities and transactions, NEC	.0149	.1354	<u>0.9</u>	<u>7.7</u>
			607.7	729.2
			320.7	626.5

Source: Bureau of East-West Trade, Dept. of Commerce data sheets.

*1973 = .6336.

Another factor which has put pressure on Soviet grain supplies has been the attempt to raise the standard of living by increasing meat consumption. As is well-known, it takes many more bushels of grain to generate a pound of food in the form of meat than in the form of bakery products. So, while the amount of grain devoted to the latter has hardly changed over the past 20 years, that which has been used by the USSR as animal feed increased from about 25 million to 100 million tons between 1955 and 1975 (Des, p. 3a). That is to say, roughly half of the grain consumed by the USSR is consumed in the form of feed, as the following table indicates:

Table IV.7
USSR: Grain Balance

	Supply			Utilization							
	Prod- uction	Waste & losses	Imports	Net Supply	Total	Feed	Food	Seed	Indust- rial	Exports	Stock change
1975/76	140.1	15.4	26.4	151.1	183.7	89.6	57.6	27.7	5.5	3.4	-32.6
1976/77	223.8	24.6	11.8	211.0	199.5	102.3	59.7	28.0	5.5	4.0	11.5
1977/78	196.6	21.5	18.4	192.6	209.1	112.7	60.0	27.7	5.5	3.2	-16.5

Source: CIA, Long-Term Outlook, p. 15.

It is as important to remedy shortfalls in feed as it has been in the grains which are used for bread. For not only is it politically inopportune today to allow the output of meat, hence meat consumption, to fall, a shortage of feed often leads to the necessity for a premature slaughter of livestock which is extremely costly.¹ In 1975, for example, when imports were not adequate to remedy the crop shortfall, there was a decline in the hog population of 14-1/2 million, and in sheep of another 4 million (CIA, Long-Term Outlook, p. 14).

Faced with these new inflexibilities, the USSR has attempted to increase its grain output by expansion of acreage, irrigation, increased application of fertilizer, and so forth. The 9th and 10th Five Year Plans (1971-80) put between 20 and 25 percent of their gross investment into agriculture. Output has roughly doubled since 1955--but this has not been enough to cover Soviet and East European domestic requirements in years of serious shortfall. Further, much of the increase in output is believed by some experts to be the result of better than normal weather conditions (CIA, Long-Term Outlook, pp. 3,4,7).

The near-term outlook (through, say, 1985) may be particularly bleak if the trends projected by CIA climatologists materialize. They believe that they have detected a weather cycle and that not only did the USSR's grain output benefit enormously from above normal weather conditions in the decade ending around 1975, but that the USSR is now roughly in the middle of a below-normal trend in precipitation. How much grain will be imported in the next half dozen years will depend very much on the weather as the following table demonstrates:

¹As noted in Chapter VII, some calculations indicate that by buying a dollars worth of feed grain in years of poor crops, the Soviets save approximately \$5 worth of capital in the form of livestock.

Table IV.8
USSR: Projected Grain Balance

	1980	1985
(million metric tons)		
Assuming favorable weather		
Output	212	236
Utilization	217	228 to 238
Gap	-5	8 to -2
Assuming long-term average weather		
Output	190	212
Utilization	217	228 to 238
Gap	-27	-16 to -26

Source: CIA, Long-Term Outlook, p. 7.

On the other hand, over the longer-run, if the weather reverts, per this model, to higher than average precipitation again after 1985, it would appear to us then, that a reduction in grain imports or even self-sufficiency might result.¹

In the recent past, the USSR has been importing about half of its grain from the United States. As it has imported more and more grain, it has depended more heavily on the United States. The United States is the largest exporter in the world and is better able than the other large exporters to increase its acreages and sales on short notice. Further, a large part of the Soviet demand for grain is for feed grains, mainly corn. This is the sector of grain in which the US had its greatest comparative advantage over other grain exporters until the Soviet invasion of Afghanistan. This suggested that if the Soviets are increasingly unable to keep output of grain increasing as rapidly as demand, then a large multibillion dollar grain trade between the two nations annually may be in the cards.

Unlike the case of grain, there has been almost no petroleum trade between the US and USSR, although the USSR is the world's largest producer and third largest exporter, and the US, the world's largest consumer and importer. The USSR has been exporting almost 30 percent of its output of which 10 percent goes to hard currency buyers; and the United States, as is well-known, is currently importing half of its total consumption. Half of the Soviet Union's hard currency earnings are from sales of oil; a significant part of the US trade deficit is oil-induced. If ever there appeared to be a match made in heaven, US-Soviet trade in petroleum would appear to be it. However, so far it hasn't worked out. The US has traditionally imported its external

¹The climatological discussion is contained primarily in CIA, USSR: The Impact, Oct. 1976. Balance of payments implications of the weather scenario are discussed in Chapter V.

requirements of petroleum from the Middle East; the USSR has exported most of its surplus to Eastern Europe, the rest to nations whose ties with the Middle East, both political and commercial, have not been as close as those of the US. In fact, it is not clear at this point whether the United States would be willing allow itself to depend on the USSR for any significant part of a commodity, so important to the economic and military performance of the US economy as petroleum is.

While in the past, and at present, the two nations exhibit as much potentiality for trade in petroleum as in grain, the outlook for the future of such potential is in question. The major reason for this uncertainty is that, in the face of steadily increasing demand for domestic and East European consumption, some experts believe that Soviet petroleum output will not continue to increase as rapidly as in the past and may even decline--as happened to the US several years earlier. In 1950, the USSR produced 30 million tons of petroleum. By 1970, production had reached 350 million tons or 7 million barrels per day; and by 1976, output reached 520 million tons, exceeding that of Saudi Arabia by roughly 15 percent. Differences of opinion on the future of Soviet output are presented in Table IV.9:

Table IV.9

	Projected Soviet Oil Output (mn. metric tons)		
	Official Soviet	Western Oil Specialists	CIA
1976 (actual)	520	520	520
1980	640	580	585
1985	750	580	500

Source: Collected from various other sources by Levine and Bond, Jan. 1978

Soviet authorities, while openly cognizant of difficulties in continuing to increase petroleum output, nevertheless foresee output continuing to grow if perhaps at a somewhat slower rate. Independent Western oil specialists and the CIA each see a peaking of growth in the next few years and the CIA pessimistically projects a declining output over the next decade. Western pessimism is due to several factors. Over most of the postwar period, the growth of Soviet output has been due largely to exploitation of fields in the Urals-Volga region. As one large field would become exhausted, another would take its place. While the region remained, at least until 1976, the major source of Soviet petroleum, growth has slowed over the past decade, and, after 1975, output actually began to decline. The slack was picked up in the late 1960s by the development of rich new fields in Western Siberia, particularly the giant Samotlor field which is currently producing approximately 130 mn. tons alone. Samotlor appears to have reached its peak

however and, at the moment, there do not appear to be any large fields to take its place. Possible large-scale discoveries may turn up in various parts of Eastern Siberia which are being explored, but, at the moment, this is speculative and, further, conditions would be hostile to exploitation in many of these areas. Certainly nothing much could develop in Eastern Siberia in less than a decade.

The old areas in Western Siberia also appear to be additionally handicapped by the use of production methods which have prevented the Soviets from getting as much oil out of wells as they had planned and by making extraction difficult in the latter stages of production. For example, in order to get a rapid flow of oil through the wells, the Soviets have injected water under pressure into the reservoirs. While this has minimized the number of wells that had to be dug and increased flows in the early stages, the end result has been that in the later stages, the pumps are removing about as much water as oil from under ground. This means less oil, and a need for more pumps and wells in the latter stages. As a result, productivity has dropped sharply; this is one of the reasons why Western experts do not feel that the Russians will come near achieving their 1980 targets. In fact, it is worth noting that while targets tended to be achieved before 1970, actual output has fallen consistently below plan since then.¹ Many other problems plague the petroleum industry. It is, furthermore, a fact that in the short-run many of these problems could only be ameliorated by imports of Western equipment, especially from the United States (such as: electric submersible downhill pumps, gas-lift lift equipment, deep drilling equipment, various kinds of pipe, etc.).²

In order for petroleum output to keep rising, new large fields must be discovered and many of the handicaps mentioned above (plus others) have to be overcome. Long preparatory periods are required to develop new sources and outputs of oil. Western experts feel that Soviet preparations are behind schedule and that while output may rise for a few more years, the 1980 target will not be fulfilled and, shortly after that, output will peak, if not decline. With sufficient and wise effort, (i.e. investment), of course, output could recover in the last decade of the century.

If petroleum output continued to rise, there would be some question as to whether exports to the West could be maintained or increased since both domestic consumption and the requirements of Eastern Europe would be rising simultaneously. Generally speaking, Soviet energy experts have assumed that future domestic energy requirements would continue to rise at roughly 5 percent per year (Jack, Lee and Lent, p. 474). In the past, petroleum has been of rapidly increasing importance as an energy source rising from 28.9 percent in 1960 to 42.5 percent in 1975 (22. cit., p. 469). This will have to change but whether it will change sufficiently rapidly to maintain an exportable petroleum surplus is a big question. Output of natural gas is rising

¹Much of the above is from: CIA, Prospects for Soviet Oil Production: A Supplemental Analysis, July 1977.

²Since 1971, the USSR has ordered \$3.1 billion worth of oil and gas equipment and \$4 billion worth of steel pipe. As of July 1977, at least another \$1 billion of equipment was expected to be ordered to convert Samotlor and other West Siberian fields to gas-lift production. Between 1972-76, orders from the US totalled \$530 million. (CIA, Prospects for Soviet Oil Production: A Supplementary Analysis, July 1977).

rapidly and will substitute for petroleum both domestically and as a hard currency export. No doubt, attempts will be made to increase relatively the output and use of coal and other solid fuels, hydroelectric and nuclear power but progress along all of these lines is not likely to be dramatic.

If official Soviet plans are fulfilled, there is some substitution of other fuels for petroleum in domestic use, and the USSR does not continue to meet all of the rising requirements for petroleum by East Europe, then exports to hard currency nations will continue to rise and a potential for exports to the United States will exist. If, on the other hand, the CIA prediction is accurate, fuel exports will actually fall rapidly in the 1980s and the USSR will be a net importer by 1985.¹ Finally, if Western specialist projections are realized, export of petroleum will decline after 1980. Under the latter two projections, trade between the US and USSR in petroleum appears highly unlikely. All in all, the potential for trade in petroleum between the two nations in the 1980s does not appear bright.

Soviet export of liquified natural gas (LNG) to the United States is a third major trade possibility between the two nations. The United States is the largest natural gas producer in the world, the USSR ranks second. However, US output has been declining since 1973 whereas Soviet output has doubled since 1970

Further, while US proven reserves were approximately 7 trillion cubic meters in 1974, Soviet proven reserves were equal to that in 1968 and had almost tripled to 22.4 tcm by 1974 (Campbell, 1976, p. 49). Despite the rapid increase in proven reserves and in output, the Soviets have not been net exporters of natural gas in recent years but have had small net imports. However, because output is increasing rapidly and, especially, because certain as yet undeveloped fields have been earmarked for possible exports to the West, particularly to the United States and Japan, the possibility of such sales cannot be discounted. American interest in these fields stems back at least to 1972 when, while the US-USSR Commercial Agreement was being negotiated, then Secretary of Commerce Peter Peterson spoke of getting an expansion of some \$10 billion in Export-Import Bank lending authority in order to help finance these enormous projects (see chap. 10). The major fields involved were the Middle Viliui near Yakutsk and the Urengoi field in Western Siberia, the so-called North Star project. Gas from the Yakutsk field would be exported eastward through a 2,000 mile pipeline exiting in Nakhodka on the Pacific Coast from whence it would be shipped in tankers to the US West coast. Gas from Urengoi would be shipped through a 1,500 mile pipeline to Murmansk on the Barents Sea and thence to the US East coast. The major American firms in the Yakutsk deal have been El Paso Natural Gas and Occidental Petroleum; in the North Star project, Tenneco Corporation and Texas Eastern Gas. The Japanese are potential participants in the Yakutsk

¹The CIA reports argue that if the Soviets are not successful in conserving energy, in shifting from oil to other energy sources domestically, and continue to grow as rapidly as before, then by 1985 they may be importing between 3.5 and 4.5 mn. barrels per day. However, many feel that the USSR can be expected to take heroic measures to avoid the costs of such enormous imports. A recent CIA study, just reported in the press (IHT, 3/27/79 p. 3) forecasts Soviet exports to the West until 1981 after which it becomes a net importer. Clearly, the CIA has not changed its view despite criticisms from various sources

project. In addition to the pipelines, large amounts of capital would be required to develop the wells, construct liquefaction plants, as well as fleets of special tankers to carry the LNG (Goldman, 1975, 118-123). There are no up-to-date estimates of the amounts of Western credits required to meet these capital costs. As of approximately 1975, figures like \$4 billion for the Yakutsk project and \$6-8 billion for the North Star were reported (Lenz, p. 6); current estimates would undoubtedly have to be much larger. The Japanese Eximbank would probably pick up part of the Yakutsk bill (Ibid.). There is no prospect, however, that the remainder would be available from the United States under present conditions.

Regardless, if the projects should be financed and consummated, there would be a very large increase in trade between the two nations for the 20-25 years over which the projects would be expected to run. Goldman (pp. 118-119) sees a value of LNG of approximately \$1 1/2 billion a year; Lenz (p. 1) envisages as much as \$4 billion (1978) each way for 25 years or a total \$200 billion flow in 25 years. The Lenz scenario includes LNG going from the USSR to the US in return for which the US will have provided capital, know-how, and machinery and equipment for the projects. To the extent that the US receives more LNG than they supply goods and services for the projects, the USSR can be expected to spend its surplus on the many other products in the American market in which they are interested.

The beauty of the LNG deal is that the two nations are truly complementary. The US needs the energy and this would provide it with a way of importing energy without running a deficit. The USSR needs (1) hard currency, (2) capital and know-how assistance in developing these two gas fields and (3) larger supplies of LNG (which presumably would be available over and above the amounts shipped to the US and Japan) all of which would flow out of these two contracts.

Negotiations over these two projects have been proceeding at least since 1972-1973 and will probably continue for some time yet before all problems are ironed out. Aside from the financing problems, there are other outstanding issues: whether the US wants to "depend" on the USSR for energy and have so much potentially hostage capital in Siberia; whether the project is, in fact, profitable for the US especially in view of the extremely high transport costs of LNG; whether the USSR might not find that it is more economical to keep the natural gas from Urengoi for its own needs in European Russia--since the distance is not as great as to Yakutia. In connection with the second point, the high cost of transporting LNG, Campbell (1978, p. 50) suggests that it would be cheaper for the USSR to substitute natural gas from Urengoi for oil for its domestic requirements and export to the West the surplus oil which results.

The fourth possibility of expanded trade mentioned above is the export to the USSR of advanced technology financed by US credits. This might be implemented by just exporting the know-how, or by exporting products embodying the technology, or by the construction by US management and technicians of factories (turnkey projects, joint ventures, etc.) in the USSR capable of producing such products. In all of these cases, but especially the latter, the export of technology is likely to be financed in part at least by exporter nation credits.

Current Soviet interest in importing advanced technology is well-known and needs no documentation here. For its part, the United States is probably

still the technological leader of the Western world although that lead is diminishing; further, the United States also leads all other nations in the scope of its direct investment activities. These facts suggest that, all other things equal, there should be a substantial interchange of capital and technology from the US to the USSR. In fact, that interchange is on a much smaller scale than one would expect. This is primarily because of US discriminatory restrictions on the export of technology (Chap. 7), on extensions of credit (Chap. 6), and on imports from the USSR (Chap. 8). A relaxation of US discriminatory restrictions would undoubtedly lead to a sharp increase in US capital and technology exports to the USSR. Of the four factors mentioned here, this undoubtedly presents the greatest potential for expansion of trade and investment between the two nations should political and economic relations ever achieve a non-adversarial status.

Benefits from US-Soviet Trade

In the previous pages of this chapter, we have discussed the basis of US-Soviet trade and to some extent explored the possible and probable limits of that trade over the near future. The next question to be raised is: what are the possible economic benefits to the US and USSR from increased trade and investment? The discussion will be mostly in terms of possible Soviet benefits.

Basically, at least 4 sources of gains from international trade and investment can be distinguished. First, competition from foreign commodities forces domestic producers to be more efficient, to innovate, and so forth. This is a very important dynamic benefit from trade, especially for small nations whose domestic markets are too small to support a large number of competitive or oligopolistic firms. Second, there are the ordinary gains from division of labor. A nation exchanges "cheap to produce" exports for expensive or "impossible to produce" imports. These are the usual "gains from trade" that theorists normally speak of. Third, nations obtain technology from each other. This technology may come embodied in imports of equipment or be disembodied and obtained from foreign technical experts, purchases of licenses, scholarly journals, blueprints, or what have you. The gains from this source are dynamic to the recipient and should increase its rate of growth. The gain to the exporter of technology is what economists call a "rent"; since the costs of the development are already "sunk," anything the developer receives for the transfer of technology can be viewed as a gain. Fourth and last, gains come from international investment. Those nations with urgent needs or profitable investment opportunities, which they do not have the funds to finance, borrow from those with relatively greater savings, less urgent requirements and less profitable investment opportunities. Presumably both lenders and borrowers profit from such financial transactions. Let us turn now to examine possible magnitudes involved.

Competition

The USSR gains little if anything from the competitive pressures generated by foreign trade. This is because it usually does not allow imports to compete with domestic enterprises. Some pressures may develop on the export side as enterprises which are supposed to sell their products abroad fail to do so (for reasons outlined in Chapter III), and are admonished by the authorities to make their products saleable. There is little evidence that these

pressures are important. Since there is little evidence that Soviet global trade induces competitive pressures, it seems obvious that the tiny fraction of that trade which is bilaterally conducted between the US and USSR could have virtually no effect whatsoever. In fact, most of what the USSR wants to import from the US--food and technology--fall into the category of non-competitive imports in any case.

The United States gains from foreign trade competition but much less so than almost any other capitalist nation because trade is such a small part of GNP. That is to say, in almost every phase of the American economy, the major competition is from other domestic enterprises. There are exceptions, of course--small foreign cars, for example--but these are exceptions. Potential imports from the USSR are so small as to be insignificant. This is especially true since a large percentage of these potential imports are in raw materials in which we have what amount to absolute shortages.

Trade: Static Gains

In discussing the ordinary gains from trade, it is useful to distinguish between large, self-sufficient nations like the US and the USSR on the one hand, and smaller and medium-size nations which cannot hope to be self-sufficient in a large range of the commodities which they consume. Many smaller nations, not having large internal markets, are dependent upon foreign trade not only for products otherwise totally unavailable, but in two other major respects. First, those which have large raw material resources depend on exports to get any value at all out of these resources. The Middle East oil producers are a classic example. Second, many nations do not have large enough domestic markets to produce for themselves at levels which would yield economies of scale. Economies of scale from mass production of manufactured products can reduce unit costs of production to a fraction of their previous levels. Clearly, the gains from trade will be much greater to the smaller than to the larger nations because they receive greater gains per unit of trade and because they trade a greater percentage of their GNP's.

To make this discussion more concrete, let us take a few examples. The United Kingdom, for example, is a nation in which exports and imports are each approximately 25 percent of GNP. The gain to such a nation from its more important imports is enormous, measurable in the hundreds of percents over cost. What would happen to the British textile industry without cotton? to its machine building industry without imports of iron ore? to the whole economy without petroleum? or without imports of food? Similarly with Japan! Such nations would be reduced to a much simpler and more rural way of life in the absence of imports. On the export side, the gains are equally enormous. The greatest gains come to the raw material-rich smaller nations which have no use, except for exports, for their natural wealth. A barrel of oil at Kuwait, a nation which must export 80 percent of its GNP, is reported to cost less than 25 cents as it comes out of the ground. Without the possibility of export, it wouldn't even be worth that. Profits through trade on exports of petroleum must amount, in the Middle East, to thousands of percents. On the other side of the ledger, the earnings from sales of petroleum make it possible for the Middle Eastern (and other third world nations) to purchase manufactured products which it would be impossible for them to produce for themselves--again providing very large gains from trade. To sum up the gains from

trade for the smaller and medium-size nations: the possibility of trade may increase GNP, relative to autarky, by say 100 or more percents in the advanced industrial nations (like the UK and Japan) and by literally thousands of percents in the small one or two resource nations like Kuwait.¹ Let us turn now to the importance of trade to the self-sufficient giants --the US and USSR. First, US exports and imports are each in the neighborhood of 7-8 percent of GNP. If we rank our imports in terms of profitability, we would undoubtedly find that the top 10 percent (equal to 1 percent of GNP) must have a very high profitability--measured in the 100's of percents. We refer to such products as petroleum, unavailable non-ferrous metals, etc. Most products we import are not like this, however. A typical import might be small foreign cars or pineapples. If small foreign cars were absolutely unavailable, who can doubt that the US could produce them, if not at the same price as Italy or Japan, at not much higher. Or, if still unavailable and not produced in this country, that current domestic models could be substituted, reducing buyer satisfaction by, say, 25 percent--but certainly not more on the average. Pineapples, if not available from abroad, would probably be very expensive to produce in the United States on a sufficient scale. However, how much is consumer satisfaction reduced by the substitution of other fruits for pineapples? With minor exceptions, US imports do not fill absolute needs but are simply better and cheaper substitutes for products which can be produced domestically.

Consider US exports. A very large percentage of these are manufactured products of which 90 percent of the output is sold domestically, with the remainder being exported. Hence economies of scale in the US do not depend on exports, usually. The profits on exports are usually not much, if at all higher, than the profits on domestic sales. Were exports to cease, the previously exported goods would be sold in the home market, perhaps at a lower price, or the resources would be used to satisfy other slightly lower priority needs. What are the profits on such exports? Again, probably not more than 25 percent on the average.

What are the static gains from trade of the United States? Leaving out the few special products like petroleum without which the gears of part of our economy would stop working for awhile, let us say that we gain on the average 25 percent on each dollars worth of imports and another 25 percent on each dollars worth of exports. Since we export and import about 8 percent of GNP, the gains from trade by this calculation amount to 4 percent of GNP ($.25 \times 8 + .25 \times 8$). If we lost all our gains from trade, we would make it up in a year or year and a half through normal growth. This is all very hypothetical--but probably in the right ball park.

¹Evidence that this is the case is provided by comparing the GNP per-capita of LDCs with a few valuable crops or resources with those that have none.

Our gains from trade with the USSR would be very small because US-USSR trade is such a small percentage of total US trade (around one percent) and only a fraction of one percent of US GNP. Our exports to the USSR are predominantly grain and machinery. There is no reason to believe that the gains from sales of these products, with the possible exception of machinery embodying new technology, is much greater (or less) than the gains from trade in general. As for the profits on exporting technology, each transaction is sufficiently idiosyncratic as to defy generalization (but see Chap. 7). Our gains on the import side are, for the most part, identical with our average profit on imports because, given the unbalanced nature of US-Soviet trade, we end up with more foreign exchange (to be spent in other countries) than goods.

Consider now Soviet gains from trade. Basically, the USSR is in very much the same position as the US--a large and relatively self-sufficient nation. There are differences between the two nations, however. First, the USSR does not trade to the limits of profitability of trade but, for reasons mentioned in Chapter III, trades less than a comparable capitalist nation would. This was particularly true of the period before 1960, although less so now. This, of course, reduces the total gains from trade. Second, the USSR does not trade freely in a single world market but, as noted earlier, discriminates heavily in favor of its CMEA partners and against the West. Such discrimination involves not buying in the cheapest and not selling in the most profitable markets. The result is smaller gains from intrabloc trade. On the other hand, trade with the West is likely to be more profitable because it has been repressed and one can assume that the more profitable opportunities have been given priority.

A third complication in assessing Soviet gains from trade is that their gains from a given value of imports seem to exceed those from the same value of exports, when imports and exports are measured in world prices (dollars). As noted in Chapter III, trade is conducted at world prices because of inconvertibility and related issues. Very recently, a Western scholar (Trembl, 1979) converted Soviet exports and imports into domestic prices. He found that while a dollar's worth of exports converted into, say, a rubles worth of goods domestically, a dollar's worth of imports converted into 2 rubles worth of goods domestically. Although domestic prices are not "rational," that this should happen on such a systematic scale suggests that the gains from trade are larger from imports than from exports, although one cannot be sure. Also, since Soviet trade in world prices is typically balanced, in domestic prices imports are twice as large a percentage of GNP as exports. While in the early 1960s, the percentages ranged around 6 and 3 percents, respectively, Trembl's estimates for the mid-1970's are approximately 12 and 6 percents reflecting the growing importance of trade to the economy.

In light of these figures, what are the static gains from trade earned by the USSR in intra-bloc and East-West trade? On the export side, the USSR is similar to the US: it does not depend on exports for economies of scale--in fact, no more than 25 percent of its exports are manufactured products. Further, exports of raw materials do not bring in the huge rents (profits) that is true of, say, OPEC oil. Extraction costs are known to be high, exportable surpluses relatively much smaller, and the alternative uses of the labor and capital employed in mining much higher than in an LDC. So, in fact, the 25 percent assumed for the US as the gain per unit of exports is probably a good ball park figure for the USSR as

well. Exports to the West may actually be somewhat less profitable than to CMEA, particularly in manufactured products, because they do have a much harder time selling and often have to sell at below the world price. To sum up on exports: say a 25 percent profit on the 6 percent of GNP that exports now represent involves a gain to the economy of some 1-1/2 percent of GNP.

The static gains on imports are undoubtedly larger. This statement is suggested by Trembl's findings (above)¹ and, with regard to East-West trade, by the conventional view, probably largely correct, that the machinery and other manufactured products purchased in the industrial West are of much better quality and higher technology than is usually available in CMEA. Nevertheless, abstracting from the dynamic impact of new technology on growth (below), it is hard to believe that if the USSR had to produce everything for itself, that (1) it couldn't produce a large percentage of its imports at a moderately higher cost or (2) that its losses, from having to use products made from domestic ingredients and technology rather than foreign (say Moskviches rather than Fiats), would generally be very large. It is important to recognize that loss of trade, for the USSR as for the US, generally involves higher costs but not absolute deprivation of the kind which would dictate a total restructuring of the economy (like not having petroleum or iron ore).

In light of this discussion, assume that the gain per unit of imports valued in world prices¹ from CMEA and from the West, are 50 and 100 percent, respectively. Since intra-CMEA trade is much larger than East-West, the average profit on imports from these two areas combined 'would be in the neighborhood of 65-70 percent. As Soviet trade with CMEA and the industrialized Western nations is about 5/6ths of the total, the static gain from imports amounts to some 3+ percent ($5\% \times 2/3$) of GNP by the above assumptions.

What would be the gain if Soviet trade with the West were suddenly to double? This would depend on whether the increase was at the expense intrabloc trade or replaced domestic production. In the latter case (called trade creation by economists) the additional imports would amount to, say, 1-1/2 percent of GNP, and that would be the amount of the gain to the USSR.² If, on the other hand, imports from the West replaced imports from CMEA, (trade diversion) then the gain would be the difference between the gain on imports from the West (100%) and imports from CMEA (50%) or approximately 3/4 percent ($1-1/2\% \times .5$) of GNP.

¹Trembl's findings can be interpreted either as implying a greater profit per unit of trade on imports than exports, or that imports are a greater percentage of GNP than exports.

The gains on imports from the United States are apt to be larger than those from the West in general. This is because Soviet gains on imports of feed grain may be larger, on the whole, than imports of any other category of goods. In times of bad crops, shortfalls of feed grain often force the Soviets to slaughter a larger percentage of their livestock herds than is desirable (see chap. 9, part 4). It usually takes several years to reconstitute these herds. It has been estimated by Levine and Bond (1978, p. 18) that in order to save a rubles worth of increased meat--livestock, it is necessary to import only 25 cents worth of grain. Since the ruble has been worth, officially, between \$1.25 and \$1.50 for some years, the profit on Soviet imports of feed grain is clearly very high if not four or five hundred percent as calculated by these two analysts.

To sum up: Soviet static gains from trade with the West and with the United States are rather small, as are the gains of the United States from trade with the USSR and CMEA. The Soviet gains are somewhat larger than those of the US because its trade with the West is a larger percentage of total trade and of GNP and because the rate of profit on imports appears to be somewhat larger than the comparable figure for the United States.

Credit for Investment

The Soviet Union has borrowed fairly heavily in Western financial markets over the past 10 years and had an outstanding debt in 1977 which probably exceeded \$15 billion, of which approximately \$11 billion was for imports of machinery and equipment (CIA, Handbook, p. 48). These deficit-financed imports affect growth in two ways. First, the imported equipment may raise productivity, especially if it embodies advanced technology. Second, if it does not substitute for other domestic equipment which would have been produced, it raises the rate of investment. In the next section, we consider the productivity-raising effects of imported machinery. Here we consider the effect on the economy of foreign credits in raising the rate of investment.

On the face of it, the possible gains appear quite small. In view of past pace of borrowing by the USSR and the fact that it is more likely to slow down rather than speed up as the level of outstanding debt rises, \$5 billion in credits per year for a number of years would seem to be a maximum amount which the USSR might borrow. We will assume that this increases Soviet investment by the same amount--which is highly unlikely since part of it undoubtedly substitutes for domestic investment. Now, \$5 billion of foreign investment adds little to the USSR's approximately \$250 billion

¹In world prices, we "view" imports equal to 6 percent of GNP; in domestic prices, they are 12 percent. However, converting them to domestic prices is part of the process of including the profits from imports in the GNP. Hence, if we viewed imports as 12 percent of GNP, the profit rate would have to be reduced--or we would be double-counting.

²The gain is likely to be less than 100 percent because the rate of profit would decline as lower ranked products are imported.

worth of fixed investment per year (1977).¹

The USSR's \$250 billion of investment is responsible each year for an approximate 4 percent rate of growth—amounting to approximately a \$40 billion increase in GNP a year. By itself, \$5 billion more of investment financed by foreign borrowing would, according to our assumptions, increase the growth rate by .08 percent (out of 4 percent) or by approximately \$800 million (\$1 trillion x .0008).

This is not very large. Further, it must be recalled that part of the growth must be attributed to other factors of production combined with the new investment (below), and that from any gross increase in growth must also be deducted eventual repayments of credits.

Dynamic Gains: Trade in Technology²

We turn now to what may be the most important form of commercial tie between the US and the USSR, namely, the import by the latter of new technology. That this is true from the Soviet point of view has been made clear in statements by Soviet leaders over the past 10 years as well as by the large numbers of actual projects which have been under negotiation, if not always concluded. The importance of new technology to an economy cannot be gainsaid. New technology, along with the development of new skills on the part of the labor force, are the major forces behind economic growth per capita. That is to say, if one were to compare any advanced industrial nation today with that same nation in 1925, the major differences would be those of skills and technology. The importance of technology was demonstrated analytically some 20 years ago when an American economist, Robert Solow, first demonstrated that it was not the quantity of new capital investment that was crucial to US economic growth (1900-1950) but rather the change in technology. In this study, it was shown that that part of US economic growth which was due to investment (as opposed to increase in labor force and skills, new resources, economies of scale, etc.) would have been less than 20% of what it actually was if the rate of investment had proceeded according to the historical record but there had been no change in technology.

Looked at from this standpoint, crude proportions suggest that imports of technology from the West have not, and could not be of great significance to the Soviet economy although they might be well worth doing. So, estimates which

¹GNP is estimated at \$1048 billion of which 24 percent is fixed investment (CIA, Handbook, pp. 9,45).

²Technology has two aspects, static and dynamic. From a static standpoint, trade in technology whether the technology is embodied in machinery and equipment or is transferred through licensing contracts, etc., is just like the purchase or sale of any other commodity and its discussion was meant to be included in the section above: Trade, Static Gains. The question which concerned us in that section was the price at which Products were traded relative to alternative costs of producing or purchasing those products elsewhere. In this section, we look at the technology dynamically and are concerned with how it affects future growth.

have been made in the West until 1977 place imports of machinery and equipment at no more than \$5 billion per year (Hanson, 1978, p. 22).¹ As we saw above, \$5 billion of ordinary investment (with an average for the economy of new technology) yields a growth rate of approximately .1 percent per year. If one assumes that imported technology is 3 times more productive (per Robert Solow), then one might infer that \$5 billion of imported technology helps to increase the GNP growth rate by .3 percent per year or by about \$3 billion a year. Doubling the amount of imported technology to \$10 billion would increase this amount by still more but probably not proportionately (by, say, another .2 percent) since it is highly probable that the most urgent and productive imports are included in the first \$5 billion. One must also recall that while the imported technology is necessary to the projected growth possibilities, it is not sufficient. Other factors of production must be contributed and some part of the resulting output is required for repayment where credit has been extended. Therefore, the net benefit of technology imports, while undoubtedly still important, falls short of the gross estimates just calculated of a .5 percent (.3 + .2) maximum increase in the growth rate of GNP per annum from importing \$10 billion worth of machinery annually. This is not to be ignored of course, but it is not earthshaking. And it is a larger amount of machinery than is likely to be imported.

This very schematic analysis has been more or less corroborated in an exploratory econometric study by Green and Levine (1977). Among other things, they attempt to estimate how much the Soviet growth rate would have been reduced in the 1968-1973 period in the absence of technology imports from the West. This estimate takes account of both the direct and indirect effects of the technology transfer. The direct effects are the actual increase in output from the imported machines themselves. There are many indirect effects. Two of the most important are (1) the added productivity of the products which result from the imported machines and (2) increase in productivity of Soviet made machinery which is based on imported products.

Green and Levine found for the 1968-1973 period that imported machinery was 3-4 times as productive as domestic capital (p. 394). This squares with our assumption, based on Solow's work, if one assumes that domestic capital contains little if any new technology. For the 1968-1973 period, Green and Levine estimated that the growth in industrial output would have been 29.6 percent instead of 32.1 percent, a drop of 8 percent, had machinery not been imported. Another way to look at these figures is that the absence of foreign machinery would have reduced the growth of industrial output by .5 percent per year $((32.1-29.6)/5 \text{ yrs.})$ and GNP by about .2 percent per year--since industrial output amounts to about one-third of GNP. The increase in GNP growth of .2 percent per year due to machinery imports derived from Green and Levine is in line with our .5 percent increase from a hypothetical \$10 billion in current imports of machinery because \$10 billion

¹It is a coincidence that we have assumed maximum credits per year at \$5 billion and also that the amount of imported machinery and equipment has the same value. While some machinery and equipment is financed by medium and long-term credits, much is purchased outright; and part of the credits extended to the USSR are not for machinery and equipment. The coincidence of numbers does, however, simply the presentation below.

in imported machinery at present would constitute a three times larger percent of machinery investment as was actually true in 1968-1973 (calculated from Hanson, 1978, p. 22).

It is worth noting that, over the past 10-15 years, as imports of foreign machinery and equipment have increased, the rate of growth of the Soviet economy has declined. This could imply that the Soviet Union needs Western machinery even more desperately than before; it could also imply that the state of disorganization of the economy is such that even less effective use is being made now of Western machinery than has been true in the past.

It is also worth stressing, as Philip Hanson (1976) did, in commenting on Green and Levine, that one must be aware of the fact that if imports of technology do not take place, it cannot be assumed that the economy continues on the same path as it otherwise would have. Certainly domestic innovation or imports of Eastern technology would be substituted, however imperfectly, for Western technology so that the losses to the USSR would not be as large as the above calculations suggest.

If the USSR could import the maximum amount of capital that we have hypothesized, Soviet economic growth would get a worthwhile boost. Such an amount would constitute around 3 percent of gross investment and close to 10 percent of investment in machinery and equipment. That such improbably huge imports of capital equipment are so small a part of total Soviet investment helps explain why it is difficult to make a greater impact on Soviet growth through imported technology.

Along these lines, it is worth comparing the current import of technology effort with that of the First Five Year Plan, 1928-1932. The present effort is indeed puny in comparison. Imports of producers' goods amounted to from 12-14 percent of gross investment during the FFYP. This is equivalent to some \$30-35 billion a year at present (1977). Further the capital stock was smaller to begin with so that each 1 percent of GNP invested in those days added a larger percent to the capital stock than is true today. Finally, the technological gap was much greater then than it is now so that each dollars worth of imports then had greater potential benefits. One caveat: the Soviet economy of the 1930s was less capable of absorbing new technology and the benefits were slower in coming.

Of course, the benefits are not realized as rapidly or as extensively today in the USSR as they would be in a dynamic capitalist economy. This is especially true of the indirect benefits because of the lack of incentives to diffuse new technology--as discussed in Chapters III and VII. But it is even true of direct benefits. Many examples can be cited in support of the proposition that imported technology is simply not always used effectively by the Soviets. Feshbach, for example, cites the case of 5 chemical plants which were imported and which, in the West, were designed to use 91 auxiliary workers. The plants were modified in such a way that under Soviet operation 430 auxiliary workers would be used. When they finally were completed and operating, they used 732 such workers! This issue is discussed further in Chapter VII.

Soviet trade in technology with the advanced West including the United States is not one-way but it is fairly one-sided. For this reason, we have not discussed the Western gains from importing Soviet technology since they would be very small, indeed. We also have not discussed Western gains from selling technology to the USSR. This is in part because there is so little to be said on

the matter and also because the subject is discussed in Chapter VII.

Monopoly Power in US-Soviet Trade

There is a preoccupation among those who oppose expansion of East-West trade with the idea that most of the gains from this trade go to the East—especially to the USSR. Generally speaking, in trade among advanced Western nations, it is assumed that all nations gain from trade and there is little, if any, concern with the distribution of these gains. However, there is precedent for concern over distribution of gains if one looks at the history of trade between the advanced and less developed nations. We need not go into this well-known "terms of trade" controversy here except to note that the distribution of gains has been related to the income and price elasticities of the products traded between the two sets of nations and to the relative monopolistic and monopsonistic powers of the private traders in each group of nations. This latter issue has been the major basis for the argument of those who feel that centrally planned economies gain excessively from trade with the West.

The monopolistic or monopsonistic market power exerted by communist nations is due, according to the argument, to the fact that foreign trade is nationalized and operated by state monopolies and monopsonies. It is a fallacy, however, to assume that because the foreign trade monopoly has the exclusive right among Soviet domestic institutions to export and import, that it has an analogous position in world markets. The market power that a foreign trade monopoly can exert in East-West trade depends basically on its relative share of trade in the different product markets and, perhaps, to some extent on types of products traded. The larger its share of a market, the lower the elasticities it faces, and the greater its ability to affect prices (and to extract gains from trade). The aggregative share of Eastern trade in that of the advanced Western nations is only around 5 percent. This suggests that unless trade is quite concentrated in specific commodities, the Eastern nations must be viewed economically as very "small" countries and price-takers rather than price makers in world trade. In contrast, the share of the advanced Western nations in Eastern trade probably exceeds 30 percent at present. Further, since many of the Western companies which trade with the Eastern nations are giant multinationals, one can almost say on a priori grounds that the West probably has at least as much market power as the East in East-West trade.

In recent years much of the stimulus in the United States for the view that the USSR exerts excessive market power stems from the so-called "Great Grain Robbery" of 1972. The Russians had a very poor grain crop in that year and, in order to meet their own domestic requirements and to maintain their export commitments to Eastern Europe, purchased almost 20 million tons of grain from the United States in a 6-week period, not to mention large amounts from other grain exporting nations. In terms of market shares, the USSR should indeed have had market power in 1972 (as well as in other years of large purchases) since they purchased over 20% of the grain purchased on world markets in that year and a larger percentage of US exports. Use of the term "robbery" refers to the relatively low price at which they were able to buy the grain—low compared with the price on US and world markets shortly after, and partly as a result of, the Soviet purchase.

Actually, the "robbery" resulted partly from an exercise of monopsonistic power, partly from "sidestepping" price system (below), and partly because of inadequacies in US Government arrangements relating to the farm subsidy program. Russian negotiators approached the various large American grain dealers separately and secretly so that none of them knew the total volume of grain being demanded. Under these circumstances, neither shortages nor serious price consequences were envisaged. At the same time, given the Government's subsidy program, the dealers didn't have to cover themselves in the futures markets—so the large temporary shift in demand was for this reason, also hidden temporarily from the market. So it is true that the monopsonistic nature of the Soviet grain organization both as agent of the Government and in share of world market made it possible for the USSR to buy grain in 1972 at a relatively low price. However, this is a unique case and under present arrangements is not likely to reoccur (see chap. 9, part 4).

Fuel has been added to the monopoly-monopsony argument by the US General Accounting Office which, in a study entitled The Government's Role in East-West Trade - Problems and Issues (1976), argued strongly for government involvement in East-West trade on the grounds that US firms and banks are manipulated by powerful communist trading organizations which come off with most of the gains from trade. Manipulation consists of playing foreign exporters off against each other—a process called "whipsawing." To test this hypothesis, the Department of Commerce Advisory Committee on East-West Trade sent questionnaires to some 500 American enterprises exporting to the USSR. Most of the respondents reported profitable trade with the USSR and either no whip-sawing or no more than they experienced in trade with other capitalist countries.¹ Jacob Dreyer (1978) of the US Dept. of Treasury tried to test the whipsaw hypothesis empirically by comparing the prices at which the USSR imports a wide range of products from the US with prices paid by other importers in 1975/76. He found very little difference in prices at all and especially differences which might be attributed to whipsawing.

If Soviet market power appears limited with regard to importing, it appears even more so on the export side. This is particularly true of manufactured products. In the words of one analyst, "As a rule, Soviet prices of manufactured goods are set below

prices of competing goods in the imports in distillate fuels; sawlogs, etc; platinum, etc; sunflower seed oil; and ores and chromium. However, with the exception of distillate fuels which were 12.3% of Soviet West; in some cases discounts are quite substantial..." (Ericson, 1976, p. 723). The potentiality for market power does exist in the case of some half dozen or so raw materials with a total value of a few billion dollars. For example, in 1975, non-Western exports including those from the USSR, amounted to more than 30 percent of Western exports to the West, the rest constituted tiny fractions of Soviet hard currency exports (Wolf, 1977). Further, while the potential for exercise of monopoly power exists in these and perhaps a few other cases, the author points out that the Soviet Union is not a very "price sensitive" trader always on the lookout to maximize profits.

¹US Dept. of Commerce, US-USSR Trade and the Whipsaw Controversy, Aug. 1977.

To sum up: in commodity trade, the USSR and especially the smaller nations of Eastern Europe, would seem to have little market power with which to reap excessive gains in their dealings with the private enterprises of the advanced Western nations.

Conclusions

The US and USSR both stand to gain from East-West trade although the gains to the USSR would appear to be somewhat greater. Their gains from trade with each other are considerably less, particularly for the United States, although

a potential for larger US gains does exist in energy imports. While the USSR undoubtedly gains more from trade with the US and the industrialized West than vice versa, it cannot be viewed as significantly dependent upon this trade. That is to say, Soviet dependence on trade with the West cannot be viewed as an exploitable weakness. It is certainly much less so than, for example, US dependence on imported petroleum.

Appendix Table IV.1

Factor Endowments US and USSR, 1960

	<u>USSR</u>		<u>US</u>	<u>USSR/US</u>		
<u>Population</u> (mns.)	215		180	---		
<u>Employment</u> (mns.)						
Farm	39.3	(25.1 female)	4.4			
Non-Farm	47.3		48.2	---		
Selected services	<u>15.5</u>		<u>13.2</u>			
Total	102.1		65.8			
 <u>Male Employment-8th grade-equivalents</u>						
Farm + non-Farm	66.4		54.3			
Non-Farm	40.6		49.9	---		
 <u>Net Fixed Reproducible Capital (1955 bns.)</u>						
	rubles	dollars	rubles	dollars	<u>R</u>	<u>\$</u>
All sectors	3,030	475	7923	1100	.382	.432
farm	397	51	496	50	.800	1.02
non-farm	1,659	278	3927	519	.422	.536
selected svces	974	145	3500	530	.278	.273
 <u>Land</u> (mns. acres)						
cultivated area		549		359		1.53
cultivated area in quality equivalents		275		359		.77
 <u>Total Factor Inputs</u>						
all sectors					.96	1.18
non-farm					.65	.81
 <u>Total Outputs</u>						
all sectors					.315	.497
non-farm					.268	.474

Source: Bergson-Eckstein, pp. 180-181, 197, 203-205.

Notes: (1) The ruble figures cited above are in pre-1961 reform prices. For comparability with post-1961 ruble values, they should be divided by ten.

(2) Value figures (capital, inputs, outputs) have to be compared by putting both in either rubles or dollars. For well-known reasons, ruble estimates favor the US and dollar estimates, the USSR.

Appendix Table IV.2

Factor Ratios - USSR and US, 1960

	USSR		US		USSR/US	
	r	\$	r	\$	r	\$
labor force/population		.474		.366		1.295
cultivated land (acres) per farm worker		14		82		.17
Capital per employee						
Total	29676	4652	120410	16716	.246	.278
Farm	10101	1298	112272	11364	.090	.114
nonfarm	35073	5877	81473	10768	.430	.546
services	62838	9355	265151	40151	.237	.233
Capital per acre (rubles or \$'s per acre)	723.1	92.9	1381.6	139.3	.523	.667
acres per worker		14		81.6		.17
factor inputs/outputs						
all sectors					3.05	2.37
non-farm					2.42	1.70

Derived from Appendix Table IV.1

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Chapter V: Creditworthiness of Centrally Planned Economies

The objective of the next two chapters is to evaluate possible US credit policies toward the Soviet Union. Perhaps the single most important economic criterion to be considered is "creditworthiness"--whether or not the USSR can repay loans which may be extended to it. This criterion occupies a much more important place in our calculations now than ever before because of the recent rapid buildup of Soviet hard currency debts to the industrialized West. Unfortunately, how creditworthiness is measured has long been a moot question. The issue is further clouded by the fact that in developing criteria of creditworthiness, bankers have considered only capitalist economies and it is not immediately obvious that these criteria are applicable to centrally planned economies as well. For these reasons, this chapter will be devoted to the debt of the USSR and to the rest of Eastern Europe and to how the creditworthiness of these countries might be measured. We deal with Eastern Europe as well as the USSR because (1) we are searching for principles applicable to communist nations and having a sample of more than one may give us a broader and more general perspective and (2) to some extent, Western creditors view the CMEA nations as a group and it therefore behooves us to give some attention to the debts of the rest of Eastern Europe. Some ways of approaching creditworthiness are suggested and possible future debt trends are discussed. In chapter 6, alternative credit policies facing the United States are presented and evaluated.

Brief History of Soviet Credit Relations

The USSR, not to mention Russia under the Czars, has had a long history of borrowing funds and resources from other nations. As indicated in Chapter 2, Imperial Russia was the largest debtor nation in the world in the early twentieth century--probably in history until that time. These debts were canceled unilaterally by the Soviet Government shortly after the November 1917 Revolution and, in addition, all foreign investments in Russia were nationalized. This treatment was not particularly discriminatory against foreigners since Russian capitalists were treated similarly.

The spirit of capitalism is indomitable, and it was not long before loans to and investments in the land of bolshevism commenced again--in the so-called "concessions" of the NEP in the early 20's and then during the first two Five Year Plans. While neither of these phases lasted very long, they were each concluded in a more satisfactory fashion from the point of view of the creditors than had been true earlier. Investors were bought out and creditors repaid and the USSR actually achieved a reputation for always paying its commercial debts at a time, during the Great Depression, when defaulting on debts, internal as well as international, was becoming the rule rather than the exception in the capitalist world.

The Soviets borrowed again during World War II in the form, primarily, of US Lend-Lease. Negotiations over the final repayment settlement on this wartime aid have been described above.

Many Americans have been less than satisfied with the Soviet reluctance to repay the amount asked by the United States. However, as indicated earlier, a case can be made in support of the Soviet position. Soviet borrowing from the West ceased after World War II as a result of Cold War political situation. Soviet requests for large credits from the US were cold-shouldered and, for reasons which can be guessed at but are still not entirely unambiguous, the USSR did not get included in the Marshall Plan. Unable to borrow from the richer half of the world, the Soviets, as they recovered from the War, became a lender to the poorer half --to the communist nations and to the non-communist LDC's. These activities began in the mid-fifties. In fact, before that, the USSR received net assistance in reparations from the former enemy nations. Over the whole postwar period, its loans to other communist nations have amounted to about \$15 billion (until 1976); offsetting this, over the past 10 years, some of the Eastern European nations have contributed to the financing of large joint projects built on Soviet soil to be repaid in the products of those investments. By 1978, the Soviets had extended close to \$17 billion in economic aid to the noncommunist LDCs; however, less than half of that amount had been drawn upon.¹

The terms of Soviet economic assistance have been quite different from those of capitalist nations in their credit relations with poorer nations. On the one hand, unlike much official Western aid, the USSR has given very few pure grants; on the other hand, interest rates have been low-ranging from 2-1/2 to 4 percent. Most loans are short or medium term and very few, if any, exceed 8 years. Loans are almost always 100 percent tied; however, repayment is also usually tied--that is, the debtors repay in the form of export of goods. Western assistance to the LDCs, on the whole, is hard to categorize since it encompasses not only aid by nation states, but by international organizations with interest rates which may or may not be concessionary (low) and loans and investments by private banks and investors much of which are at higher market rates of interest and profit.²

Economic relations between Eastern and Western Europe began to change substantially in the early sixties (chapter 2). East-West trade increased steadily and, not unnaturally, credit relations improved simultaneously. The direction of the credit was mostly from West to East for two reasons. First, the East wanted to buy more from the West than vice versa, thereby implicitly generating deficits. Second, the East was buying a lot of machinery and equipment from the West, and it is common trade practice to sell such products on medium- to long-term credit terms. While long-term credits were not at this time extended to Eastern Europe, medium term credits were. At first, the United States lagged behind, not participating in the expansion of trade and credit. With detente, US trade and

¹CIA, Handbook, 1979, p. 116. Military contracts totalled almost \$30 billion in the same period but it is not clear that these were viewed as "aid."

²Before turning to the Soviet Union's recent debtor experience vis-à-vis the advanced Western nations, it is important to note that these debts to the West cannot be offset by repayments to the USSR of credits which she has extended to other Eastern nations and to Western LDCs. This is because almost all of the credits outstanding are scheduled to be repaid either in inconvertible currencies or in products probably not easily re-exportable to the West.

credit policies began to catch up in the early 1970s, but these changes were largely aborted by Congressional actions in 1974-75 and then by President Carter's reactions to the invasion of Afghanistan.

Recent Hard Currency Debt Buildup - Some Estimates

The history of credit relations between East and West is not hard to quantify in a rough sort of way, but it is difficult, indeed, to do so with precision. Fairly precise estimates might be made from balance of payments data --but unfortunately most of the Eastern nations do not provide much information beyond commodity trade figures. These figures are deficient in three respects: they do not include the remainder of the current account transactions--the so-called invisible items like freight and insurance, interest and profits remissions, tourism, etc.; further, no official breakdown between hard and soft currency transactions is ever presented although some educated guesses are possible; finally, sales of arms for hard currency are also never made public.

Another approach is to try to assess the amount of credit extended by surveying the various possible sources of credit: official loans by governments, loans by banks, and by other investors, suppliers credits, etc. To the extent that the communist nations hold offsetting financial assets in the West--for example, deposits in Eurodollar banks--it would be essential to make a distinction between their gross and net debtor positions. One also has to make a distinction between the amount of credit extended as opposed to the amount drawn down and to use the figure which is relevant to the particular point at issue.

While both of these approaches have been used and while no two persons have ever come up with identical figures, it is nevertheless a fact that a fair degree of consistency among estimates has been achieved and there is rough agreement on the orders of magnitude involved. The orders of magnitude are roughly as follows. During the 1960s, the USSR ran trade deficits with the West amounting to about \$2-1/2 billion, the rest of Eastern Europe, about \$3-1/2 billion (Portes, p. 757). The trade imbalances from 1970 through 1978 are presented in Table V.1.¹ At the end of 1977, the net hard currency debts of all of the East European nations were estimated to have broken down as follows (Table 5.2):

Offsetting these debts are Eastern deposits in Western banks which were estimated to have amounted to some \$6 billion in 1976, half of which were owned by the USSR. These are fairly large debts even after subtracting deposits in Western banks and that is one (but not the only) reason why credit policy toward the communist nations is an important public issue today. Not only are these debts large but their rise has been meteoric since 1970: from \$8.3 bn. to \$50.9 bn. for the total debt; from \$2.5 to \$16.0 bn. in the case of the USSR. Of course,

¹Since these are just trade and not current account balances, they cannot be expected to add up to the debt figures presented just below. Further, in the case of the USSR, part of the deficits was financed by gold sales rather than credit. Finally, some trade with developed West is not in hard currency and some hard currency trade is with other than developed West nations.

Table V.1
Eastern Europe Trade with the Developed West (\$ billions)

	1970	1971	1972	1973	1974	1975	1976	1977	1978
Eastern Europe	4.5	4.8	6.0	8.5	11.3	11.3	12.8	13.3	15.2
Exports									
Imports	5.1	5.6	7.3	11.1	16.5	17.8	19.2	19.3	21.6
Balance	-0.6	-0.8	-1.3	-2.6	-5.2	-6.5	-6.4	-6.0	-6.4
USSR									
Exports	2.4	2.8	3.0	5.1	8.2	8.4	10.3	12.2	
Imports	<u>2.8</u>	<u>2.9</u>	<u>4.2</u>	<u>6.2</u>	<u>8.1</u>	<u>13.5</u>	<u>14.4</u>	<u>13.4</u>	<u>16.2</u>
Balance	-0.4	-0.1	-1.2	-1.1	+0.1	-5.1	-4.1	-1.2	-3.2

Source: CIA, Handbook, 1979, p. 99, p. 105.

the communist nations are not the only ones with rapidly growing external debts today. The non-OPEC LDCs and several of the Western European nations have even larger and more worrisome debts.

What were the sources of these loans, particularly those to the USSR?¹ As of the end-1977, the USSR had utilized almost \$10 billion in credits from other governments out of approximately \$14 billion in loans extended. Private Western bank credits to the USSR amounted to \$4.4 billion of which about \$1 billion were Eurocurrency loans. Finally, some \$2.2 billion in loans were in the form of supplier credits. Eastern Europe credit sources were approximately the same as the USSR with regard to official credits and supplier credits. However they received loans amounting to more than \$16 billion from private banks--four times as much as the USSR--of which almost half came from the Eurocurrency market. As far as official credits are concerned, the major lenders have been the UK, France and West Germany. The United States has extended almost no loans to Eastern Europe and was responsible at the end of 1977 for only 3 percent of those to the USSR, in contrast with roughly 24% by France, 23% by West Germany, and 22% by Italy. This is not surprising in light of the Stevenson amendment to the Trade Reform Act of 1974 which limited Export-Import Bank credits to the USSR to \$75 million a year for four years (specific Congressional approval being required for loans in excess of this amount). The Jackson-Vanik amendment which tied MFN to emigration policy for all Eastern nations must also have contributed to the creation of an atmosphere uncondusive to official credits to other Eastern nations.

Reasons for Debt Buildup

Why are the USSR and Eastern Europe borrowing so heavily from the West at present? Some of the responsible factors were discussed in Chapter 3 and may be briefly repeated here. These factors were mostly systemic in nature and may be expected to cause balance of payments pressures over the long run. Among the most important were the relative (to the West) difficulties the communist nations were having in producing quality manufactured products and in developing and diffusing new technologies. This is responsible for both reducing exports and increasing the demand for imports. Since manufactured products and products embodying advanced technologies are the major source of exports of the more developed nations, this is a very serious deficiency. Unlike the rest of the Bloc, the Soviets can earn hard currency by exporting raw materials, particularly oil and gas, not to mention gold. As we saw above (chapter 4), however, the long-run prospects of earnings from these sources, especially oil, are problematical. As far as imports are concerned, problems with advanced manufactured products and products embodying new technologies just referred to above, provide the major impetus to trade with the West. In 1976, four-fifths of Soviet imports from the industrialized West were comprised of machinery and manufactured products, another 9 percent were chemicals (US Dept. of

¹My source on the figures which follow is Kolarik, p. 198.

Table V.2
Eastern Hard-Currency Debt, Dec. 1977 (preliminary)

Bulgaria	\$2.7 bns.
Czechoslovakia	2.7
GDR	6.0
Hungary	3.4
Poland	12.8
Romania	3.8
USSR	16.0
CMEA banks	<u>3.5</u>
	\$50.9 bns.

Source: Kolarik, p. 199.

Commerce). The imports of all Eastern European nations were dominated by the same categories of products. Especially in the case of the USSR, it seems clear that a large proportion of these imports are designed to remedy declining growth rates--to substitute "intensive" for "extensive" sources of growth (see Chap. 3). Soviet (as well as Western) data show seriously declining growth rates, as the figures in Table 7.1 below demonstrate. The last two Five Year Plans have emphasized that imports of technology from the West are important to the fulfillment of planned tasks (cf. chapter 7). Our own skepticism regarding the probable impact of such imports was presented in Chap. 4.

A related factor in the rising deficits has been the gradual erosion since the early 1960s in Bloc self-sufficiency in grains. This self-sufficiency, as is well-known, depended on Soviet grain surpluses to meet Eastern European deficits. The failure of Soviet grain output to increase rapidly along with an unusually large number of years with bad weather conditions over the last decade and a half have forced the USSR to import huge quantities of grain costing billions of dollars from Western suppliers. Three other systemic factors which create secular hard currency problems (two are noted in chapter 3) are the overfull employment planning pressures, the inability of communist nations to devalue their currencies in order to rectify balance of payments disequilibria, and the need to use credits as a substitute for equity capital flows which are largely proscribed on ideological grounds.

Two new developments appeared on the horizon in 1974, one of which has had serious balance of payments consequences for all of the Bloc nations, the other mixed effects. It used to be an article of faith held by Eastern and Western observers alike that the communist nations, with their central planning and large arsenal of instruments to control both domestic and foreign trade, were relatively immune from the kinds of disruptions of economic life which capitalist nations tend to transmit to each other through international economic and financial transactions. This has not proved to be the case. The major blow to this

theory and to the balances of payments of the communist nations has been the recent Western recession. When Western nations go into a slump, total spending declines including spending on imports from other nations. It was this effect which caused world trade to collapse during the years of the Great Depression of the 1930s. World trade was also seriously affected by the Western recessions which began in 1974. In nominal prices, world trade increased by 39 percent in 1973 and by 45 percent in 1974 but fell off to 5 percent in 1975 and 13 percent in 1976 (World Bank, p. 106). The very high rates of increase for 1973 and 1974 are partly the result of inflation, of course; moreover, taking inflation into account, it is highly possible that, in real terms, world trade declined in 1975 and perhaps in 1976. The decline in world trade is one of two major factors behind the current rise in the US balance of payments deficit--other nations are simply not increasing their imports from us as much as they used to. (The other major factor in the US deficit, of course, is the rising cost of oil imports.) The hard currency exports of the communist nations suffered a similar fate.

Table 5.3
Percentage Increase in Value of Hard Currency Exports

	East Europe	US
1974	+35	+61
1975	-3	+1
1976	+13	+25
1977	+7	+16

Sources: Soviet data from CIA Handbook, 1976, p. 59; Kolarik, 1979, p. 197. Eastern European data from Posthelsinki, p. 1352; Kolarik, 1979, p. 197.

The drop in growth after 1974 is obvious from Table V.3. While in nominal terms, exports increased each year except for Eastern Europe in 1975, in real terms Eastern Europe may have almost no increase in exports over the three year period. In real terms, Soviet exports also declined in 1975 and the real increases in 1976 and 1977 must have been very modest since the prices of Soviet energy exports rose substantially. Clearly, centrally planned economies are very vulnerable to Western business cycles.

The second development referred to above has been the world inflation, and particularly the rise in petroleum and other raw material prices. First, a word about inflation. Inflation, per se, is not the serious problem for the communist countries that it is for capitalist nations. As is well known, capitalist nations tend to import inflation from each other through a number of different channels. One of these is the higher price at which foreign products must be purchased, which higher prices tend to become incorporated into the domestic price level. This need not happen in a communist country because of the absence of organic connections between foreign and domestic prices. If a communist country has to

pay twice as much foreign exchange for a foreign commodity, it can still (and does) price that product in domestic markets as before simply by giving the Foreign Trade Organization a subsidy. Further, even though it is paying twice as much foreign exchange for a foreign commodity, if there is general inflation, it will be able to sell its own products in Western markets for double the old price thereby ending up no worse off in real terms. Moreover, as with imports, the internal prices of exportables need not be changed just because they are now being sold in the West at higher prices--the Foreign Trade Organization simply hands its excess profits over to the Government.

The communist nations are affected, however, by increases in prices which are not uniform. The recent world inflation has been a case in point - petroleum and raw material prices have risen more rapidly than other prices. For the Soviet Union, this has been a windfall and has substantially increased its hard currency earnings as it has those of the OPEC nations. This partly explains the enormous 61 percent increase in Soviet hard currency earnings in 1974. For most of the other Eastern European nations, however, it has been a disaster since it has significantly increased their expenditures on petroleum imports both from the USSR and from OPEC. This reduction in what economists call the "terms of trade"--an index of export prices over import prices--means a real reduction in the gains from trade since these nations must export more at the new price levels in order to buy the same amount of imports.

To sum up on these two recent developments: the rise in raw material prices, especially of petroleum, has substantially increased Soviet hard-currency earnings.¹ In fact, as of 1977, exports of petroleum and natural gas accounted for somewhere near one-half of these earnings. On the other hand, the Western recession made a tremendous dent in these earnings and led to unprecedented deficits as Western imports shriveled.

Two final factors, both related to detente, should be mentioned as contributing to the recent debt buildup. These are: on the part of the West, an increased willingness to lend to the Eastern nations; and on the part of the East, an increased willingness to go into debt to the West. The increased willingness to lend was enhanced during the recession of the mid-seventies, by the decline in Western demand for and, therefore, greater availability of funds. The increased willingness to borrow was enhanced by the low real rate of interest as a result of inflation.

Alternatives to Western Loans

A few pages back we asked the question: why is the USSR borrowing so heavily from the West at present? The answer suggests that to a considerable extent the borrowing may be involuntary in the sense that (1) systemic difficulties prevent balance and/or (2) the Western recession so rapidly reduced exports that it was either impossible or highly undesirable immediately to reduce

¹The rise in petroleum prices, by enormously increasing the hard currency earnings of Middle East OPEC nations, made it possible for the USSR to export arms to these nations for hard currency thereby indirectly increasing Soviet hard currency earnings.

imports commensurately. (For all Eastern nations but Poland and the USSR, adverse shifts in terms of trade created similar problems.) One might legitimately ask why there is such concern over the rise in debt? Several factors would appear to be responsible. First, as the debt rises, eventually interest and amortization repayments--the so-called debt service--begin to absorb a larger and larger percentage of receipts from exports. Similar considerations limit the amount of debt that private individuals or businesses care to have outstanding. Most of the East European nations have hard currency debt service/export ratios that amount to 25 or more percent of hard currency earnings. (Debt service/export ratios will be discussed in greater detail later in this chapter.) A second factor, inhibiting continual increases in the external debt, especially if the debt is increasing faster than export earnings and GNP, is the doubts that this may cast on the creditworthiness of the borrowing country. There are two aspects to this. First, a nation of the nature of the USSR may feel that it is inappropriate for it to be so much in debt to other, especially capitalist, nations. Second, creditor nations and private lenders may fear for the safety of their capital and interest should the borrowers get very heavily in debt; such fears are reflected in reluctance to extend additional credits and/or the charging of higher rates of interest. These would seem to be the main political and economic factors constraining unlimited growth of debt.

Gold Sales

Other techniques have been used to continue running deficits but without incurring rising debts and debt-services. The Soviet Union, in particular, as the second largest gold producer in the world after the Union of South Africa, has the option of substituting gold sales for increases in debt. No one in the West knows exactly how much gold the Soviet Union produces, but US government sources put annual as having as having risen from 3.5 million in 1960 to 6.5 million in 1970 and 8.8 million in 1978.¹ The 1978 output would be worth \$880 million at \$100 an ounce and \$1.76 billion at \$200 an ounce. Generally, over the past 10 years, the price of gold has ranged from \$120 to more than \$800 an ounce depending largely on the state of mind of speculators in world money markets (whose state of mind is largely determined by the degree of stability or instability in these markets). At end-1976, one Western observer estimated Soviet gold reserves at 3,250 tons and valued at \$13 billion²; another source put reserves at 44-1/2 million troy ounces in 1978.³ Basically reserves are estimated from "guesstimates" of output from which are subtracted sales on Western markets. The latter figures can, of course, be calculated from Western sources. The Soviets sold gold to help finance hard currency imports from the late 1950s and to the mid-1960s. At this point sales dropped off sharply and in many years

¹CIA, Handbook of Economic Statistics, 1976, p. 104; 1979, p. 69.

²Portes, p. 768. This estimate implies that a price of \$125 an ounce was assumed.

³CIA, 1979, p. 69.

there were no gold sales at all (below). Heavy sales were resumed in 1972 and from 1973 to 1976 are estimated to have averaged about \$1 billion a year.¹

The interesting question at this point is why the USSR did not finance more of its very large 1975-1976 deficits by still greater sales of gold to prevent its debt from increasing so rapidly, and to prevent possible threats to its "creditworthiness" position with the possible consequences just noted above. Several possible answers come to mind. First, as one of the largest sellers of gold, USSR sales can definitely influence the gold price, and the lower prices which might result from larger sales might affect Soviet sales policies. If, for example, demand is price inelastic in some years when more than \$1 billion worth of Soviet gold is put on the market, it would be self-defeating to sell more than that amount. Second, a nation of the size of the USSR and with its volume of trade may well feel that it is extremely expedient to have substantial reserves of gold or hard currency which have a very high degree of convertibility and spendability as well as stability of value. A large reserve is the more essential when one considers that it is undoubtedly a reserve not only to meet Soviet emergencies but to meet emergencies which may develop in other CMEA nations. It is well-known, for example, that on various critical occasions the USSR has made large hard-currency loans to other nations in the Bloc, for example, to Hungary after the 1956 uprising and to Poland after the December, 1970 riots.

Abstracting from the monopolistic effect on price of Soviet sales of gold, it is fair to say that the USSR is putting an implicit value on the importance of having a gold reserve which is available to meet emergency needs; that value is the difference between the zero return on holding gold stocks and the 7,8,10 or whatever percent interest that has to be paid on credits which are negotiated to protect the gold stocks. This assumes that the Soviet leaders are completely rational in their decision to maintain a large gold stock at the cost of a larger debt.

Such an assumption is not entirely warranted, of course, for the Soviet Union or, for that matter, for officials of other nations. Gold has its mystique and this seems to be worth quite a few interest percentage points to many people.

Charles De Gaulle was a case in point. The current high price of gold has, in part, justified its mystique. The persistence with which the Soviets have thrown resources into gold mining all of these years--even when the price of gold was maintained fixed at \$35 an ounce and gold mining may have been unprofitable to the USSR--suggests that to the Soviets gold may have some mystique. Despite some possible irrationality, it is our belief that it is mainly for its emergency value that the Soviets hold such a large gold stock.

¹H. Levine and D. Bond, Soviet Responses to Hard Currency Problems, SRI, August 1977, p. 2. Recent information estimates gold sales at \$4.3 billion in 1977-78 leading to some reduction in reserves (CIA, Handbook, 1979, pp. 67,69).

Convertibility of Transferable Rubles

In order to reduce the need to borrow at high interest rates from Western nations, the CMEA nations have introduced what might be called another "ploy." I use the term "ploy" to describe their action because its probability of success seems so remote to me. What they have done, in effect, is to make it legal for foreigners to hold "transferable rubles" (TRs) and to encourage them to accept TRs in payment for products purchased by CMEA importers. TRs were described in Chapter 3. They are a currency created by the CMEA International Bank for Economic Cooperation (IBEC) in an effort to multilateralize intraCMEA trade. Trade was bilaterally balanced in CMEA because all national currencies were inconvertible. The TR did nothing to solve the bilateralism problem because it turned out, as some predicted, that it was and is as inconvertible as any of the domestic currencies of the CMEA nations. Inconvertibility, as noted earlier, stems from the irrationality of domestic prices and from the central planning with direct controls, the latter creating so-called commodity inconvertibility. For years, it has been a CMEA goal to gradually make the TR convertible, not only for use in intraCMEA trade but for use in the West. The famous Comprehensive Program of 1971 which set forth CMEAs long-run course for the future envisaged that the TR would eventually be used like other currencies for settlements with third countries (Section 7, articles 5 and 12). How this was to be achieved was never spelled out. In recent years, Eastern European international financial experts have floated the idea of creating an "externally convertible TR" for trade with the West--a TR which would be backed by and convertible into hard currencies and gold. How this was to be done was not spelled out nor was the interest that might be paid on such holdings mentioned.

The general impression that these proposals created was that CMEA was attempting to make the TR an international "vehicle" currency like the dollar (and a few others like pound sterling, French franc and German mark) which foreigners would be willing to hold for their convenience in use in international trade and at low or negligible interest rates. The low interest which is paid on vehicle currency holdings is a tribute to their wide use, acceptability, and great convenience. The willingness of foreigners to hold these currencies at low interest rates means in effect that the issuing nation is getting cheap credit. This, apparently, is CMEA's major motive in attempting to make the TR externally convertible. A secondary motive may be the prestige connected with having such a currency and not having to rely on capitalist currencies. What the CMEA financial authorities apparently do not realize is that several conditions are necessary for a currency like the dollar to become widely accepted for international financial use. The nation that issues the currency must be a large trader and have a reasonably large financial market; the currency must have had a relatively stable value for a period of time; and, as a last resort, foreigners must have a wide choice of goods on which to spend the currency in the issuing country. CMEA hardly meets these conditions. It has not been a large trader in the West, it has almost no financial markets, and it is plagued by commodity inconvertibility. Under these circumstances, foreigners have no more incentive to

hold large amounts of TRs than they have to hold any of the 100 or more national currencies which are virtually not used multilaterally in international trade. Under these circumstances, the only way to induce foreigners to hold TRs is to pay a high rate of interest on deposits. But this is no better than borrowing money at a high interest rate and, therefore, not worth the trouble (Holzman, 1978).

Viewed in this light, it came as a great surprise when, in the fall of 1976, IBEC announced that foreigners would be allowed to hold TRs and were encouraged to do so in payment for exports to CMEA importers. The encouragement was almost entirely verbal--in Soviet terminology, "material incentives" were almost entirely lacking. First, interest paid on TR deposits is only one percent, far below Western market rates. Second, the TR was not made "externally convertible"--that is to say, a foreigner holding TR deposits could not convert these into Western currencies or into gold. Of what use were these deposits? Presumably they could be used for purchases in the CMEA nation from whom the depositor had originally received them. But, and this is the third drawback: the depositor would be faced with "commodity inconvertibility" and would have no guarantee that he would be able to spend his TRs in a profitable transaction. In effect, the acceptance of TRs for exports is the equivalent of a barter transaction between a Western seller and the buyer CMEA nation in which the seller receives a certificate which pays a low rate of interest and which entitles him to purchase a given value of unspecified products at unspecified prices and at an unspecified time in the future. If he is lucky, the holder of the TRs will eventually find something he wants to buy at a reasonable price or will find some other Western purchaser who has a use for the TRs and has permission to transfer the TRs to him, no doubt at a discount.

Obviously, Western exporters who understand fully the terms on which the TRs are paid would be unlikely to accept them voluntarily as payment. According to reports, some Western exporters have nevertheless accepted TRs in part payment, with convertible currency making up the rest. This may have happened, in part, from ignorance. In other instances, part payment in TRs has been a condition of sale, a condition which some CMEA importers have been able to insist on when faced by a number of competing sellers, a not uncommon phenomenon in the soft state of the world market in the late 1970s. Skepticism regarding the value of TRs is widespread in US banking and business circles and it is unlikely that Western holdings of TRs will amount to much, under present terms.

What are the prospects for a convertible TR? Not very good in this writer's opinion. As I see it, there are two possible ways of achieving convertibility. One way is to make the TR "externally convertible" by agreeing to convert it, upon demand, into gold or convertible currencies. In addition, deposits would have to pay a reasonable rate of interest. Given the existence of "commodity inconvertibility," it seems likely that pretty close to a 100 percent gold hard currency reserve would be required as backing. Under these circumstances, more flexibility of operation is probably realized by borrowing in Western markets, as the USSR has done, and having its gold reserve free for use in

emergencies. The second way of achieving convertibility is to undo the conditions which cause inconvertibility--both currency and commodity inconvertibility. As we saw in chapter 3, inconvertibility stems from irrational prices which are not related to world prices and from the direct controls which ration a large percentage of domestic transactions. The only way, as I see it, to eliminate these conditions is to decentralize (or eliminate) planning, and allow relatively free markets and prices both domestically and in foreign trade. Under these circumstances, an organic connection will develop between the domestic and world markets, and the domestic currency will become exchangeable (convertible) again into other currencies--it will have a real ascertainable value and it will be usable by foreign holders in the purchase of a wide range of products within its borders. Once the domestic currencies of the CMEA nations become convertible, of course, there is no need for the TR--since it was introduced to overcome the problems created by inconvertible domestic currencies.

To sum up: the efforts of the CMEA nations to expand the use of the TR in East-West trade appears to be an attempt to cope with their credit problems--an attempt which seems doomed to failure.¹

Switch Trading

Several other techniques have been developed over the past decade either in whole or in part to cope with hard currency deficit problems.² One of these is a financial arrangement called "switch trading." "Switch trading" is made possible by the fact that CMEA nations often have bilateral surpluses with specific LDCs for which they receive payment not in convertible currency but in so-called "clearing credits." As with the TRs, these credits are in-convertible and must be spent in the country of origin. An Eastern nation with such credits attempts to use them to finance imports from the West. Naturally, such credits can only be used at a discount relative to their official value, the discounts varying according to Marer (1974, p. 141) from seven to thirty five percent. The discounts vary with the value of the products which are available from the different LDCs--their resale value and marketability elsewhere. The CMEA nation doesn't have to sell its clearing currency directly to a potential importer; there are brokers who deal in switch currencies. Of course, while convenient, selling to these brokers means receiving still less for the currency since the broker's fee must be included.

¹For a fuller discussion of the convertibility issue, see Holzman, 1978.

²Discussed in Marer's article in McMillan, pp. 141-142; and in Matheson, McCarthy and Flanders article in Post-Helsinki, pp. 1277-1311.

Barter, Counterpurchase and Compensation Agreements

There are three other techniques, non-financial in nature, which have been designed to avoid hard currency payments. These are called, respectively: barter, counterpurchase, and product payback (or compensation) agreements. These three techniques are not entirely distinct but are related in the sense that each involves payment or part payment by the Eastern nation in kind rather than in currency in exchange for an import. Barter refers to a purely barter transaction in which one product is directly exchanged for another. No money or credit is involved and the transaction is concluded over a very short time period.

Counterpurchase refers to the case in which an Eastern organization buys technology or plant and equipment from a Western exporter who in turn agrees to buy commodities from the CMEA organization equal to a certain percentage of the value of his sale. The Western exporter extends credit to the Eastern importer, which credit is repaid in part or in whole when the Western exporter makes his counterpurchase. As in the case of pure barter, the products bought by the Western partner can be anything at all and need not be related to the technology or plant and equipment in the original transaction. The counterpurchase of vodka in return for the technology and plant and equipment to produce Pepsicola which was bought by the USSR is a case in point. Unlike barter, counterpurchase agreements often take place over a several year period. Finally, as with switch transactions, the Western purchasing commitment can be transferred to a third party, often a trading house which specializes in this type of transaction.

Product payback or compensation agreements are more like counterpurchases than barter. However, in the product payback agreement, the product is usually the output which results from the imported technology or equipment. An example would be the petroleum imported by Japan from Eastern Siberia from Soviet wells developed by the Japanese; another--the shipment of Fiat automobiles to Italy in part payment for the plant built in the USSR with Italian help. Transactions like these also differ from counterpurchase in two other major respects: they are, by their nature, likely to take place over much longer periods of time and to have a much larger total value. Sometimes the product payback exceeds the value of the original investment. One basic motive behind all of these three types of transactions is to avoid payment in hard currency¹--to pay in commodities instead. Another side of the same problem is that, in effect, the Eastern partner shifts its marketing problems onto the shoulders of the Western partner. However, to the extent that the Western partner feels that he is disadvantaged by these agreements relative to just receiving payment in convertible currency, other terms of the agreement are undoubtedly adjusted in compensation. It is also worth noting that to the extent that the Eastern product is a "hard" commodity like petroleum and easily saleable for convertible currency, then no balance of payments advantage is gained by engaging in the above-described practices.

¹There are other Soviet Bloc motives, of course. A most important one is that compensation arrangements facilitate transfer and updating of technology.

There is one other credit aspect to the compensation agreements that is very favorable to the CMEA countries. I refer to the fact that they often constitute, in effect, the extension of a very long-term credit. The Western partner advances technology and equipment to the Eastern nation and because of the long gestation period often involved in such projects, repayment in products does not begin for many years, and, once begun, continues for many more years. This means that the Eastern country receives credit which does not burden its hard currency balance of payments position--either in currency or exportable goods--for many years. In terms of the discussion below, the debt service/export ratio is not raised in the short- or even medium-run even though the debt/export ratio may have risen. Eventually, of course, the chickens come home to roost--but the borrower does get a breather in the meantime.

How important quantitatively have these various agreements been? Their impact on trade flows is difficult to estimate and data are not too reliable or plentiful. It has been estimated for 1975 that of the total Western exports of machinery and equipment to the USSR, about 15 percent or roughly \$615 million worth resulted from compensation agreements. The comparable estimate for US sales to the USSR was 17 percent or roughly \$100 million in sales. A Soviet deputy minister, referring to the giant multi-faceted \$1 billion Occidental agreement with the USSR estimated that more than one-third of US-USSR trade over the 1976-1980 plan might be attributable to compensation agreements.¹ Another source (Barclay, p. 468) estimates Soviet compensation exports at \$1.45 billion in 1978, or slightly over 10 percent of total hard currency exports. The former are expected to rise to approximately \$4 billion by 1985. These are rather substantial though certainly not earth-shaking amounts. Further, one must assume that had there been no compensation agreements, some of the trade which has resulted would have been substituted for by ordinary commodity trade. Nevertheless, these special agreements do appear to be an important trade and credit catalyst.²

There are a few other minor institutional sources of Western funds which should be mentioned. We refer here to the operation of Eastern banks in Western markets and to the Bretton Woods institution, the IMF and IBRD. First, the two CMEA banks, IBEC and the International Investment Bank (IIB) have both borrowed money in private Western money markets, which money has been

¹All above figures in this paragraph taken from Maureen Smith's article in New Perspective, p. 782.

²In January, 1980 President Carter set a quota on imports of ammonia from the USSR under its compensation agreement with Occidental Petroleum. Authority for the quota resides in the Trade Reform Act of 1974, Section 406. Section 406 deals with market disruption caused by exports from the communist nations (cf. Chapter 8). This action by the President, while politically inspired, nevertheless follows a similar determination by the International Trade Commission that ammonia imports were disruptive and should be restricted. These actions are certainly very threatening to the future role of compensation agreements in helping the USSR in its financing problems.

devoted to financing projects in their client nations. Secondly, most of the Eastern nations have (or had) established banks mostly in Western Europe that also raise funds through borrowing. They also accumulate additional funds simply through deposits of citizens in the countries in which they are established. The best known of these banks is the Moscow-Narodny Bank in London.

The CMEA nations are also acquiring convertible funds by virtue of having joined the International Monetary Fund (IMF) and the International Bank for Reconstruction and Development (IBRD). At present, Romania and Hungary are members of these organizations and Romania has drawn upon them for \$400 million. In my opinion, CMEA nations are interested in joining these institutions primarily in order to have recourse to their convertible currency credits. As argued later (chapter 9), they certainly cannot aspire to the goals of these organizations.

Miscellaneous Arrangements

Before turning to examine the creditworthiness of the USSR--a basic consideration in any decision regarding future lending policies toward that nation--it is worth mentioning that several other possible courses of action are open to that nation to correct its adverse hard currency balance of payments position.

First, if exports cannot be increased, then the USSR could simply reduce imports drastically to the levels dictated by exports and credit repayments. The returns for 1977 (Table 5.1) suggest that this may already be happening.

Second, the Soviet leaders could indeed opt for a full scale internal reform, one which might over the long-run reduce or eliminate the various systemic tendencies toward hard-currency deficits which were outlined in Chapter 3. In my opinion, this option is unlikely to be adopted just for the purpose of eliminating the hard currency deficit although it might for other related economic reasons such as a continuation of the slump in the growth rate of Soviet GNP. The reasons why substantive internal reforms have been shunned by the USSR are largely political and were spelled out in the last few pages of chapter 3. To these may be added a pair of further arguments. First, the relative smallness of the Soviet foreign trade sector certainly inhibits the planners from making economy-wide reforms in order to ameliorate foreign trade problems. Second, the connection between economic reforms and the balance of payments is sufficiently long-run and indirect as to encourage the planners to try other policies first--as they are doing.

Third, the various members of CMEA sell each other commodities which could be sold for hard currency in the West. Until the early 1970s, the practice was, in bilaterally balancing trade, to have at least two bilaterally balanced sub-categories: "hard" goods and "soft" goods. This was probably done at the instigation of the particular Bloc nations which sold the most hard goods to increase their export potentialities to the West. In recent years, this arrangement has been changed and the Eastern nations now pay each other in hard currency for hard goods. This allows some multi-lateralization of intrabloc trade in hard

goods. Now, the USSR is the major supplier of hard goods in CMEA. Since the inflation in raw material prices which began in 1973, the USSR has not charged other CMEA nations the full world price and, furthermore, has extended them credits to enable them to purchase as much as before.

On both counts, the Soviet Union has deprived itself of the possibility of earning additional hard currency in Western markets. Further sacrifice of hard currency has been entailed by the Soviet role as supplier of grain to the other CMEA nations. At one time, the USSR was able to play this role as a result of surpluses generated on its own grain fields. Demand has caught up with supply and, in years with unfavorable weather conditions, the USSR has had to import grain from the West in order to fulfill its export obligations (see chapter 4). Expectations are that, more and more, imports of grain from the West will be necessary for re-export to the East.

Oil, Grain and Politics

These latter facts suggest two obvious sources of additional hard currency for the USSR: divert petroleum exports from Eastern Europe to the West and stop guaranteeing grain supplies to Eastern Europe. A move in the direction of supplying less petroleum to Eastern Europe has already been taken. In 1975 and 1976, the increment to Soviet petroleum exports went primarily to the West: the share of the West in Soviet exports rose from about 27 to 33 percent over 1974-76 whereas the share to Eastern Europe declined from about 50-1/2 to 46 percent. However, the absolute volume of exports to Eastern Europe did still increase. Why don't the Soviets go further in reducing Eastern Europe's share of their petroleum exports and also stop guaranteeing grain to Eastern Europe? Primarily, it would appear, because one of the most important links that the USSR has with its Eastern Europe cohorts is foreign trade. Many decades were spent building up trade relations between nations in CMEA, which had very little natural complementarity to begin with as evidenced by the very low level of trade between them, and especially between them and the Soviet Union, before World War II.¹ For most of the postwar period, especially after 1956, the Eastern European nations appear to have gained more from mutual trade than the USSR. Undoubtedly, the Soviet Union agreed to such an arrangement because it viewed intrabloc trade in a framework which Henry Kissinger would have designated as "linkage politics." That is, they traded part of the profits from intrabloc trade for goodwill and for the fact that such trade tended to make the Eastern European nations economically, and therefore politically, dependent upon them. Should the Soviet Union substantially reduce its exports of petroleum and grain to Eastern Europe, it runs the risk of impairing this very important integrating force in CMEA at a time when other long-run plans (such as the

¹For details on the politics and economics of intrabloc trade, see my International Trade Under Communism: Politics and Economics, Basic Books, New York, chapter 3.

"Comprehensive Program") envisage and attempt to implement economic integration by other means. How the USSR views this "tradeoff" between hard currency earnings and CMEA integration is a very important matter but one on which, unfortunately, we have almost no direct information.

Creditworthiness

We turn now to investigate the present and potential future creditworthiness of the USSR. This is a most important variable in a determination of US policies toward the extension of credit to that (or any other) nation. It is not the only variable, of course. Nations which the US wishes to support for political reasons may receive loans even if they are not creditworthy--or perhaps even receive gifts. On the other hand, in the case of an adversary nation like the USSR, lack of creditworthiness could prove an absolute barrier to further extension of credit.

The Debt Service/Export Ratio

Unfortunately, creditworthiness is not easy to measure unambiguously. The measure which is typically used is the debt service/export ratio (here-after ds/x)--or related to this, the total debt/export ratio. These measures were apparently invented by bankers looking for a simple criterion by which to evaluate the creditworthiness of nations, or individual enterprises in foreign countries, applying for loans. Given the use to which the ds/x is to be put and the profession of its inventors, it is not surprising to find that the ds/x is essentially the same kind of measure which is used by bankers and others to evaluate the creditworthiness of enterprises and other economic units (financial institutions, households) within a nation. As one economist recently put it (Minsky, 1975):

A financial system is robust when debt servicing can be readily satisfied by income cash flows and when portfolios contain sufficient cash and marketable financial assets not required by operations to absorb temporary shortfalls in cash receipts. A financial system evolves toward fragility as the cash flows on liabilities increase relative to the cash receipts available for validating debt and as units are stripped of liquid assets.

The ds/x is likewise a cash flow concept in which the cash expenditures on liabilities are the interest and amortization on debts held by foreigners and the cash receipts are, largely, current account earnings. Since data on invisibles are often unavailable for CMEA, we are often forced to substitute commodity exports for total current account earnings.

How is the ds/x used and how good a measure is it of national creditworthiness? The usual rule of thumb which was applied to Western nations before, say, 1975 was that a nation is deemed creditworthy if its ds/x is below .25 and not creditworthy if it exceeds .25. Unfortunately, this rule of thumb has not always proven consistent with the opinions of informed observers or with events and therefore has to be used with a lot of caution. To give a few examples:

Australia and Canada with ratios between .35 and .45 during the 1930's did not default on their obligations whereas various Latin American nations with ratios between .16 and .28 did default (Portes). In recent years, Brazil and Mexico with ratios of .25 and .30 respectively were deemed creditworthy whereas Italy with only .10 was not because its currency was so overvalued. Similarly, Gambia and Mali have ratios below .10 because they are so incapable of servicing debts that no one will extend them credits.

Analytically speaking, the ds/x suffers the following weaknesses as a measure of creditworthiness:

(1) First, it is a short-run concept. A nation might have a .25 ratio which, depending on maturities and amortization rates, could represent a 5-year or alternatively a (say) 20-year annual burden. In the latter case, the debt/export ratio would be roughly 4 times higher than in the former case. Obviously the same ratio is less ominous over 5 than over 20 years.

(2) As a short-run concept, the ds/x tells us nothing about the ability of a nation to transform its economy over the medium and long run to produce more exportables and import-competing products, thereby improving its balance of payments and repaying its debt. This "ability" is a function of several factors including resource potential and the proper choice and effective implementation of government policies.

(3) Also because it is a short-run concept, the ds/x takes no account whatsoever of the relative profitability of the debt from the standpoint of either the lenders or the borrowers. Given high rates of interest relative to other investments either at home or in third nations, and lenders may be perfectly content to see the ratio rise still further. Similarly, given very high rates of return on investments financed by funds borrowed from abroad, a borrower may feel justified in further expansion even with a high ds/x . However, no matter how large the profits, eventually exports must be increased and imports decreased. Along these same lines it is worth noting that corporate investors don't look at cash flows but rather at potential growth, net earnings over time, etc. (Avramovicz, p. 43).

(4) Another important consideration is whether the deficit results because a nation has to finance crucial consumption requirements and has large unexploited and profitable investments or is simply overimporting because of an overvalued exchange rate. This is not as serious a problem as it was in the era of pegged exchange rates but it is still important. While one can make a case for continuing to grant credits where the costs to lender and borrower are accurately reflected in relative prices under properly valued exchange rates, one cannot if exchange rates are out of equilibrium and buyers and sellers suffer from what amounts to a money illusion. Those who lend to nations with overvalued exchange rates in fact suffer greater exchange rate risks.

Despite these weaknesses, we will not discard the ds/x completely. Rather, it may be used with caution taking other factors into account.

An Alternative Approach: The Transfer Problem

Conceptually, the creditworthiness problem can be approached from another standpoint by using an old kit of tools with which economists have traditionally analyzed the so-called transfer problem. One of earliest examples of this type of analysis was the lengthy debate in 1929-30 in the Economic Journal between Lord Keynes and the famous Swedish Nobel Laureate, Bertil Ohlin. The question they debated was whether or not Germany could pay the reparations (R) that were demanded of her by the World War I Treaty of Versailles. The analysis is in two stages or, in current terminology, there is a 2-gap problem.

First, in order to pay its debts, the German nation as a whole must save a sufficient amount to make the payment possible. In technical economic terms, one could say either (1) that in order to pay the debt, current savings must exceed current investment by the proper amount $S-I=R$ (unless the nation has foreign exchange reserves saved from the past) or (2) that the nation must produce more output (Y) than it uses or absorbs, $(A) Y-A=R$.¹

The second gap is that between international receipts and payments, $X-M$ for short. That is to say, it is not sufficient to save enough output to pay the reparations; in the absence of foreign exchange reserves those savings have to be transformed into more exports and/or fewer imports so that $X-M=R$. In the absence of foreign exchange reserves or other past savings or stocks that could be used to earn foreign exchange, the two gaps are obviously equated:

$$Y-A(= S-I) = X-M$$

To repeat, at the macro level, foreign exchange can be earned to pay R only by saving more than is invested or, what amounts to the same thing, producing more than is consumed (absorbed).

The Keynes-Ohlin debate carried the analysis still further. It was pointed out that increasing Y or reducing A by an amount equal to R does not automatically result in an increase in $X-M=R$ particularly in foreign exchange. The problem is that in order to improve its balance of payments, $X-M$, a nation may have to devalue its currency. Devaluations usually cause some loss in terms of trade. That is to say, the foreign prices of the devaluing nation's exports usually fall more than the prices of its imports so that an $X-M=R$ in domestic currency will be equivalent to $X-M < R$ in foreign exchange. This loss was called the secondary burden of the transfer. If a nation faces very inelastic demands for its exports and has very inelastic demand for its imports, it may be almost impossible to make the reparation payment in foreign exchange; at least, the payment will be much more expensive in terms of domestic savings than it would appear from estimates which fail to take account of changes in terms of trade. An analogy would be a situation in which a person had to sell his house and belongings on short notice in order to repay a debt. Clearly, he would not be able to sell at full value under the circumstances. Recall also that declining terms of trade during the Great Depression forced the USSR to export more grain than they had planned in order to import the targeted amount of machinery.

¹Y is GNP, A is absorption or total spending and $= C+I+G$ where C are consumption expenditures, I are investment expenditures and G are government expenditures.

It is probably obvious to the reader at this point, that the debt repayment problem can be analyzed in the same fashion as the reparations problem.¹ A major difference, however, is the fact that in incurring a debt, most nations (enterprises in nations) receive technology and equipment which may lead to an improvement in X-M, whereas, in the case of reparations, the nation starts off on square one.

The Savings Gap

We turn now to examine Soviet and East European creditworthiness in terms of their ds/x ratios and the two gaps of the transfer problem. The Y-A gap can, in theory, be increased to provide more scope for an increased X-M either by increasing the rate of increase or absolute size of Y or by reducing the rate of increase or absolute size of A. In the short run, the communist nations, including the USSR, would seem to be less capable than capitalist nations of benefiting from increasing Y above its present trend. This is because the goals of maximizing growth rates (within existing constraints) and overfull employment planning are pursued with such intensity under normal conditions that little if any scope is left for improvement. Along these lines, the peacetime USSR has often been likened to wartime capitalist economies. Over the longer run, conceivably reforms might be undertaken which would reverse the decline in the rate of growth, encourage domestic innovation and introduction of new technology, and improve the economy in other respects. At the moment, however, the prospects for a fundamental reform appear dim for reasons noted earlier.

Can A be reduced? Twenty five years ago it was commonplace to argue that the power of the Eastern nations to reduce A, particularly by reducing the increase in C--or even reducing C absolutely--was fairly absolute and certainly much greater than in capitalist nations. In the 1930s, after all, the USSR was able to compress the Soviet standard of living, exporting grain and other foods while the people went hungry. Under stress, in the early 1950s, some of the Eastern nations followed the Soviet pattern. Such measures are probably no longer politically possible. The uprisings and riots in Poland in 1956 and 1970 and in Hungary in 1956 as well as the general rise in expectations of steadily rising standards of living in Eastern Europe--the so-called consumerism movement--are evidence of the loss in flexibility with regard to manipulations of C. Additional evidence: the large and expensive grain imports since 1960 to meet periodic shortfalls in domestic out-put stand in striking contrast to Stalin's exports of grain in the 1930s. The USSR faces other serious constraints on reducing A. Between the arms race with the United States and hostile relations with China, it appears unlikely that the percentage of military expenditures in GNP can be reduced in the near future. Further, the Soviet rate of investment has been rising steadily--from 21 percent of GNP in 1960 to 31 percent in

¹In fact, the transfer problem apparatus can be and is used today to analyze many problems having to do with improving X-M. The usual procedure is to start with the X-M target and ask what its Y-A implications are.

1978.¹ This slow upward creep is undoubtedly a response to the decline in the rate of growth of GNP and the secular rise in the capital-output ratio.

Despite the fact that the Y-A gap cannot be easily augmented, Eastern "savings" requirements to finance overseas hard currency debt requirements might be much more easily met than in the West. This is true for at least two reasons. First, as noted in chapter 3, the trade participation ratios (TPRs) of the Soviet bloc nations (X/Y) are generally smaller than those of comparable Western nations. What this means is that a given ds/x in the West requires a larger increase in domestic savings to finance it than in the East.² Second, and quantitatively more important, the relevant debt service in the case of Eastern Europe is that on trade and investment with advanced Western nations only--which amounts to, say, one-third of its total trade. Soviet hard-currency exports amounted to one-fourth of the total, imports one-third of the total, in 1975. Putting these two factors together suggests that financing a given hard currency ds/x requires a saving effort in Eastern nations that is probably no more than 25-30 percent of that in a comparable Western nation.

Some indication of the magnitudes involved in the East are presented in Table V.4. In col. 3, we present X/GNP ratios for 1973 where X represents not total Eastern exports but just hard currency exports. Compare the hard-currency ratio for the USSR of 1.4 percent with that of the US of 7-8 percent. Hungary has the highest ratio--11.2 percent. The ratio of a comparable small Western nation would be upwards of 25 percent.³ These small TPRs in hard currency translate into comparably small ds/GNP ratios, presented in column 5. These range from an insignificant 0.28 percent in the case of the USSR to 3.92 percent in the case of Hungary. The comparable figure for hypothetical small Western nations with TPRs of .25 to .50 and ds/x 's of .20 to .30 would be 5-15 percent. Five to fifteen percent of GNP would be a substantial drain on current output⁴; 0.3 percent to 3.9 percent much less so. Further, as we note below, these low ds/GNP ratios were generated by fairly large ds/x ratios, mostly in excess of .20.

¹CIA, Handbook of Economic Statistics, 1979, Washington 1979, p. 62.

²For example, assume two nations each with a ds/x of .20 but with TPRs of .10 and .30 respectively. The ds/Y will amount to 2 percent in the former case and 6 percent in the latter.

³In a recent article on the creditworthiness of LDCs, Robert Solomon concerns himself exclusively with what we have called the Y-A gaps and assumes implicitly that if Y-A gaps problems are resolved, the X-M gap problems will take care of themselves. This may well be due to the much larger Y-A problems experienced by the LDCs as noted in the text. On the other hand, for reasons which are explored here, the X-M gap problems can certainly not be taken for granted when dealing with Communist nations (Cf. Robert Solomon, "A Perspective on the Debt of Developing Countries," Brookings Papers, 1977, No. 2).

⁴This is not meant to imply necessarily that the gains from the imports financed by borrowing are not large enough to carry the debt service.

Table V.4

Hard Currency Trade and Debt Service/Export Ratio Relationships Mid-Seventies¹

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	<u>Total X</u>	% X to	% X/GNP	ds / GNP		Average	ds/GNP
	GNP	Dev'd West	hard	X	GNP	Annual GNP,	% ? GNP
	(%)	1973	currency	1975	(3)X(4)	1971-75	(5) / (6)
	1973						
USSR	6.0	23.0	1.4	20	0.28	2.9	9.7
Bulgaria	26.4	12.0	3.2	66	2.09	6.7	31.2
Czechoslovakia	30.9	21.0	6.5	22	1.43	3.6	39.7
East Germany	20.5	24.7	5.1	27	2.97	5.0	59.4
Hungary	45.7	24.5	11.2	35	3.92	3.8	103.2
Poland	12.1	32.0	3.9	43	1.68	5.8	28.9
Romania	6.4	32.0	2.1	42	0.86	7.8	11.0

Sources:

Col. (1): USSR - Treml, 1979; Eastern Europe - IBRD, World Tables, 1976, Washington, 1977, p. 415.

Col. (2): Calculated from CIA, Handbook, 1975 p. 158. No allowance was made for the fact that the price level in intraCMEA trade is higher than in East-West trade.

Col. (4): USSR: JEC, Soviet Economy..., p. 738; Eastern Europe: Zoeter, p. 1367.

Col. (6): CIA, Handbook, 1976.

¹Caveat: The data used and methodologies employed in constructing this Table leave much to be desired. The Table is presented for illustrative purposes, only, with the hope and conviction that the resulting errors are of lesser magnitudes than the effects to be described in the text. Some of the problems are as follows. In col. (1), the Soviet figure was constructed by converting Soviet exports to domestic prices and dividing by official Soviet figures of Net Material Product also in domestic prices. The IBRD figures for Eastern Europe, however, use NMP in domestic prices in the denominator but incorrectly, perhaps for lack of better alternative, use for numerators exports in Western prices converted to local currencies at official exchange rates. These exchange rates, in many instances, may be pretty far off from correct purchasing power parities. This may account for the very low Romanian (and perhaps Polish) X/GNPs. Col. (2) is calculated in dollars and is subject to the qualification noted above in the source but, additionally, should be calculated in domestic prices to be consistent with Col. (1). Col. (3), then, as product of (1) and (2), is also a hybrid of inconsistent units, even for the USSR with its consistent col. (1) figure. Col. (4) is calculated in dollars and, for what it signifies, is satisfactory. Col. (5), however, as a product of (3) and (4), is also a hybrid of inconsistent units. Similarly with col. (7).

Another perspective on the primary burden of the ds/GNP is to compare it with the growth in GNP. In column 6 we present the average growth rates of GNP in the 1971-75 period, and in column 7 the ratio of ds/GNP in 1975 to these growth rates. The percentage of an annual growth rate taken by the debt service ranges from 9.7 percent for the USSR to 103.2 percent for Hungary. While the drain for nations like Hungary and the GDR look large--and are from some points of view--it should be recognized that in terms of the growth of GNP, the resources devoted to a given amount of debt service take a once-and-for-all chunk. Assume a nation with a GNP of 100, annual growth of GNP of 6 percent and annual debt service of 2. In the first year, while GNP would rise to 106, only 104 would be available domestically. In the subsequent year, domestically available GNP would rise by approximately 6 percent from 104 to 110.

In terms of GNP growth rates, rising ds/GNP ratios are perforce gradual and appear to be a small drain. Suppose in the preceding example, the debt service had risen from 2 to 2.5, an increase of 25 percent. Domestically available resources would rise from 104 to 109.5 instead of to 110, an incremental loss of only 8-1/3 percent of the increase in GNP.

The conclusion one reaches from these calculations is that the Y-A gap (uncomplicated by possible terms of trade losses) is not of large magnitude with the possible exceptions of Hungary and the GDR.

The Trade Gap

We have just demonstrated that the Y-A gap should not present serious problems to the Eastern nations, representing as it does a very small percentage of either current output or of the annual increment to output. The smallness of the Y-A gap is in fairly sharp contrast with the hard currency X-M gap required to finance the debt service. This is indicated in column 5 of Table V.4. Ratios

range from .20 to .22 for the USSR and Czechoslovakia, respectively, to ratios in excess of .40 in the cases of Romania, Poland, and Bulgaria (which has a high of .66).¹ By ordinary standards, the Romanian, Polish and Bulgarian debt service problems would appear to be serious--but as we indicated earlier, the ds/x is not necessarily a good measure of debt service problems. Let us first compare the means by which capitalist and communist nations can attempt to meet the X-M gap problem by improving their current account position.

Capitalist nations with deficits can improve their current accounts by devaluation, by introducing quotas and exchange controls, and occasionally by putting dampers on domestic economic activity. Private enterprise reacts to changes in market signals which result from devaluation and economic slowdown, and in the cases of quotas and exchange controls, are restrained by government order. Devaluation presumably (1) increases the output of exportables and of import substitutes; (2) increases the sale of exports at the expense of domestic users; and (3) decreases the purchase of imports at the expense of domestic users.

The exchange rates of the CPEs are not real prices and therefore devaluation has no effect whatsoever on export or import prices. Devaluation can be simulated on the export side, of course, by simply lowering prices. This may or may not increase foreign exchange receipts (see below); however, because of the separation between domestic and foreign trade prices, simulation of devaluation and resulting increased sales abroad have no automatic impact on output of exportables. While the CPEs get no mileage from market instruments like devaluation, given state ownership and control of the means of production and central planning, direct controls can be used to achieve each of the three objectives mentioned above achieved by devaluation as well as the reduction in imports which is implemented in the West by quotas, exchange controls, and economic slowdown. In addition, the Eastern nations have two potential sources of improving their hard currency accounts which are not available to Western nations and which, in theory, should improve the effectiveness (in technical terms, the implicit "elasticities") of their efforts: (1) diversion of exports from Eastern to Western markets and (2) substitution of imports from other Eastern partners (or other non-\$ sources) for imports from the West. Since intra-CMEA trade amounts to from one-half to two-thirds of each CMEA nation's total, in theory substantial "elasticity" should result.

The question is: how successfully can these various policies be implemented? There are two aspects to this answer. First, it is necessary to consider domestic political and economic constraints to implementation, in effect, of the Y-A gap problem; second, even if domestic constraints are overcome at least in part, there are foreign constraints as well, embodied in the X-M gap.

¹Still higher ratios were recorded for all countries in 1976 (same source).

Domestic Possibilities and Constraints

What are the possibilities that the Eastern nations, especially the USSR, can: increase and/or divert the output of exportables to Western markets; divert exports from Eastern to Western markets; reduce imports from the West; and substitute imports from the East (or from other non-\$ markets) for imports from the West. There are barriers to the easy achievement of each of these goals. The pervasiveness of taut planning provides several roadblocks. One consequence is that any attempt to increase the output of exportables or to divert exportables from the domestic economy to the West runs into the problem that either the absolute or relative use of those and other products must be reduced elsewhere in the economy. This is difficult to do in the industrial sector because of the bottlenecks which are created and in the household sector because of growing "consumerism." Capitalist nations often have an easier time on these matters because their economies are not so taut and an increase in exports doesn't necessarily imply a decline in domestic use; and because devaluation is relatively impersonal in its impact and the government is not as likely to be held directly accountable for undesirable consequences. Diversion of exportables from Eastern to Western markets faces similar constraints--such diversions are difficult because of the dependence of other communist nations on these exportables (imports to them) and because of "tautness" which aggravates the consequences. Nevertheless, it is clear that the USSR is shifting the weight of its petroleum exports from East to West though the former still gets the lion's share.

Reduction of imports from the West runs into the same problems as increasing exports to the West--bottlenecks in the industrial sector and consumerism in the household sector. Substituting imports from the East for imports from the West is a possible but not a happy solution to the hard currency problem. Such substitution undoubtedly involves a substantial reduction in gains from trade because of the superiority of Western manufactured products, and this must create strong resistance to change. Efforts along these lines would have their best chance of success in periods of Western recession during which Eastern hard currency balance of payments problems are wide-spread and due to recession-induced declining exports to the West. Under these circumstances, both Eastern exporters and importers might be motivated to adopt the second best solution of trading with each other.

Much of the above discussion has been about short-run adjustments, neglecting the possible long run strategies for increasing exports and reducing imports. In particular, to what extent has investment--especially that investment made possible by imports from the West--been designed to improve the balance of payments over the longer run by developing exportables and import-competing goods. There is no question about the fact that a substantial portion of CMEA imports are capital goods and designed to increase productivity.¹ However, according to one authority, these imports are more often designed to increase productivity in industries which service domestic markets and exports

¹Nevertheless, on balance, the percentage does not appear greater for the CMEA nations than it is for many Latin-American and Asian middle-level developing nations (Cf. L. Brainard).

to intraCMEA markets than hard currency markets (Snell, pp. 688-689). The long-run picture with regard to importables is similar. To quote: "...[CMEA] import of Western technology has not led to an effective program of import substitution" (Crawford and Haberstroh, p. 38). According to the same source, not only have imports not been used to develop import-competing industries, but in fact many of the industries established on the basis of Western machinery imports require continual additional hard currency imports of high quality inputs for their operation. Further, it turns out that the faster growing industries in Eastern Europe typically require a faster growth in supporting imports from the West--in effect what economists call a high output elasticity of demand for hard currency imports (*Ibid*). If these observations are generally true, then the long-run creditworthiness of the communist nations to be achieved by expansionary means would appear to be some-what handicapped.

To sum up: considerable domestic rigidities due to taut central planning and consumerism impede short-run efforts to reduce hard currency deficits. Over the longer-run, until 1975 at least, most of the Eastern nations did not strongly push investment and import policies which would develop hard currency exportables and import-competing products. Conversations with Eastern economists suggest that, as a result of the rising deficits, much more serious efforts are now being made to gear investment and imports into balance of payments corrective projects. How successful these efforts will be, only time can tell.

Foreign Constraints

Before turning to so-called foreign constraints, it is worth recalling first that the potential X-M gap is quite directly affected by long-run factors mentioned just above, namely, the alleged failure in the past of the Eastern nations to invest as much as they might in exportables and import-competing industries.

Hard currency export-augmenting policies are constrained not only by domestic economic and political factors and the policies of other Eastern partners; implementation is also constrained by Western policies and by the economic parameters of world markets. It is one thing to increase the supply of products to be marketed for hard currencies, and another to actually sell them. There are several problems.

First, while some exports can undoubtedly be expanded without lowering prices--e.g., oil, gas, and other raw materials--others cannot. (Fortunately for the USSR, raw materials are major exportables.) Lowering prices in order to compete, if successful, may lead to Western anti-dumping or anti-market disruption actions. Because of the irrationality of domestic prices, inability of the CPEs to prove that they are not selling below cost or below domestic market price makes it impossible for them to successfully refute anti-dumping charges--even when they are, in fact, dumping. So far, these potential hazards have not caused CPE exporters too much trouble (Chap. 7), however.

Second, the anti-dumping problem is exacerbated by the fact that CPE prices cannot be lowered on world markets by currency devaluation. Bloc

exchange rates are not real prices (as noted earlier) because domestic prices are irrational and currencies totally inconvertible.

Third, a significant percentage of Eastern exportables are manufactured products. For reasons discussed in Chapter 3, these products have not found easy markets in the West. It might therefore be difficult to expand sales at all or at prices which do not involve a prohibitive decline in terms of trade.¹

Fourth, part of the responsibility for the recent rise in the ds/x has been the Western recession of the mid-1970s. Western imports fall below trend partly because the rise in GNP is slowed or actually falls reducing imports along with other expenditures, and partly because under these conditions, nations have tended to increase protectionist curbs on imports.² In periods like this, it may become almost impossible to increase export earnings significantly. There is also some evidence that Western imports from the East decline more than Western imports from the West during recessions. That is to say, the East is viewed as the marginal supplier of imports.

To sum up: The major constraints, then, on increasing exports to the West appear to be the difficulties in entering and successfully competing in Western markets for manufactured products. The amount of domestic resources required to finance an increase in exports necessary to prevent an increase in external debt and debt service is certainly not prohibitive. In the case of the USSR, in particular, it appears trivial (Table 5.4), although in a sense no diversion of resources is ever totally trivial in tautly planned economies. (The USSR has the further special advantage of potentially expansible supplies of easily exportable raw materials.) For all nations but the USSR (but eventually also for the USSR) however, the secondary burden of the transfer looms large. Exports either cannot be expanded rapidly enough at acceptable prices--or sometimes cannot be expanded at all. The problem facing the Eastern European nations is probably more severe than that facing similarly placed Western nations with identical debt/export ratios because much of the Eastern European debt is shorter-run implying larger ds/x ratios. Reducing and servicing their debts, then, through export expansion (or import contraction) must be done over a shorter time span in which demand elasticities are apt to be smaller and the secondary burden of transfer therefore larger.

With the possible exception of the USSR in the short-run, this leaves current account adjustments to be accomplished largely by reducing (not increasing proportionately) imports. There are two reasons why it is economically less desirable to reduce imports than increase exports. First, a dollar's worth of imports is more valuable to the importing nation than a dollar's worth of exports. That is what gains from trade are all about. Second, in the short run at least, exports are less necessary to the economy than imports. That is, exports are not included in the plans for domestic use whereas imports are. Hence reductions of imports may be more disruptive than equivalent increases

¹This means in terms of the transfer problem, a very large "secondary burden of transfer."

²Cf. IMF Survey, August 1, 1977, p. 241.

in exports. This is probably more true of intermediate than of final products, especially consumers' goods.

The impact of these factors is mitigated by the choices which would be available to the importing nations. First, while it is true that imports are worth more than exports, in reducing imports, the nation would concentrate on those products which were least valuable to them. At the same time, any increment in exports could be expected to come out of products on which the profits are less than the average. That is to say, the forgone imports would represent a low segment on the downward sloping demand curve and the additional exports a high segment on the upward sloping supply curve. Second, since imports will not be cut back all at once but in stages, a nation can avoid stopping purchases of those intermediate products which would constitute absolute bottlenecks to production--such as the loss of oil imports in the West were in 1973-74. Third, in most instances curtailment of imports involves a reduction in the growth of GNP and of standard of living--but not an absolute reduction. While the latter might verge on intolerable, the former does not--however undesirable. Looking at column (3) of Table 5.4, it seems clear that while East-West trade is important to the East, its impact is inevitably small. Even though the ratio of dollar imports to GNP is somewhat larger than the figures for dollar exports/GNP in column (3) (since imports exceed exports), still a fractional reduction in those imports, concentrating on the least important, could not be catastrophic. It would, of course, be least important to the USSR, perhaps most important to Hungary. To sum up, abstracting from increases in exports which might result from Western economic recovery, reduction of imports below desired levels would appear to be the major instrument for rectifying the present (short-run) hard currency imbalance.

Some Recent Evidence on Ability to Adjust, 1970-1977

Before turning to the recent evidence referred to in the sub-heading, it is worth calling attention to an excellent study of the Soviet balance of payments crisis of 1963-1965. That study, by Oleg Hoeffding (1968), attempted to demonstrate how the USSR adjusted its balance of payments in order to finance the large emergency food imports of 1963-1965 following a disastrous crop year. Of course, the magnitude of the problem was much less than that with which we are concerned, approximately a half-billion dollars of extra expenditures at a time when hard-currency exports totalled a billion dollars. At that time, however, credit lines to the USSR were short and it may be that they would have preferred borrowing to paying their way had that option been (cheaply) available. It is interesting to see the speed with which the USSR reacted to its problem and the various adjustments which were made. Among other things, Hoeffding found that the USSR within a year or two: increased food imports from other communist nations; reduced food exports to Eastern Europe; reduced hard currency imports of many non-food items (e.g., of rubber and copper); increased non-food exports to the West of a whole range of products; and increased their sale of precious metals and stones to hard currency nations. In many instances, trade with Eastern Europe or Cuba substituted for foregone trade with the West.

As already noted, present problems are of a much greater order of magnitude. So, for example, the fact that East-West trade is so much larger today than in the mid-sixties, has major implications for the values of the various trade elasticities which face the CPEs in attempting to adjust to their disequilibrium. How well have they done? No conclusive answers are presented here, partly because of data problems.

Table V.5 contains annual rates of change of CPE hard currency exports and imports over the past 7 years. These figures provide some evidence of the actual short-run ability of the communist nations to adjust their current accounts (actually just their trade balances) to their rising hard currency indebtedness.

The picture presented in Table V.5 is one in which, with minor exceptions, exports and imports rose after 1970 at increasing rates peaking in 1973 and/or 1974 at very very high rates of increase due, to a considerable extent, to inflation. The impact of Western recession on exports is seen in the last three columns, particularly in the 1975 column--in this year, despite continuing rising prices, all countries but Poland and the USSR experienced a decline in hard currency exports; in real terms, Polish and Soviet exports probably also declined. The partial recovery in 1976-1977 is reflected in the small positive rates of increase shown--small when one considers that part of these increases are due to inflation. The importance of CPE export drives in the face of soft Western markets is revealed by these data.

With the major exception¹ of the USSR in 1975, which was forced to make emergency grain imports, hard currency imports were either almost leveled off or reduced in 1975-1977 in both nominal and especially in real terms. The sharpness of the change in trend clearly indicates that the Eastern nations took strong actions to curb imports. These measures were not strong enough, however, as is evidenced by the fact that the hard currency trade deficits experienced in 1975 and 1976 generally exceeded or were roughly equal to the previous prerecession peak deficits. Summary figures on deficits for Eastern Europe and for the USSR were presented earlier in Table V.1. In 1977, the Eastern European deficit remained almost as high as it had been, but the Soviet deficit was more than halved. The Soviet performance was undoubtedly enhanced by the reduced need to import grain in 1977, by the rise in prices of gold, petroleum and natural gas, and by Soviet ability to increase petroleum exports to the West. Despite these special factors, the Soviet reduction in imports is fairly impressive.

In sum, the CMEA nations, faced with large unplanned deficits, proved unable to adjust quickly and to prevent their external debts from increasing. After two years, the U.S.S.R. has brought its deficit down, but Eastern Europe as a whole has not. However, the two nations with the largest ds/x ratios, Bulgaria and Poland, did achieve substantial reductions in their deficits also (Kolarik, p. 197). Before leaving this issue, it is only fair to point out two extenuating circumstances which explain, in part at least, the failure to achieve trade balance.

¹Minor exceptions were East Germany in 1976 and Hungary in 1977.

Table V.5
East European Trade with Developed West: Annual Percentage Change

	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>1976</u>	<u>1977 (prel.)</u>
<u>Exports</u>							
Bulgaria	10	9	30	0	-10	34	1
Czechoslovakia	10	12	37	29	-2	-1	25
East Germany	7	24	36	38	-2	20	10
Hungary	-1	35	47	13	-10	21	12
Poland	14	27	48	39	6	11	9
Romania	22	23	46	58	-13	15	0
Total East Europe (wtd. average)	10	23	42	35	-3	14	8
USSR	16	6	72	61	1	25	16
World	12	19	39	45	5	13	
<u>Imports</u>							
Bulgaria	4	2	42	93	30	-24	-14
Czechoslovakia	10	9	43	34	7	9	7
East Germany	5	36	42	29	3	25	-3
Hungary	27	8	33	64	-	3	21
Poland	19	65	94	55	16	9	-8
Romania	8	28	39	68	-11	-2	13
Total East Europe (wtd. average)	12	30	54	49	7	7	1
USSR	3	43	50	30	66	8	4

Sources:

Eastern Europe: 1971-1975 from Zoeter, p. 1976-77, Kolarik, 197.

USSR: 1971-1975 from CIA, Handbook, 1976, p. 59; 1976-77, Kolarik, 197.

World: from World Bank, Annual Report, 1977, Washington, 1977, p. 106.

First, the crisis was triggered by the Western recession and by the end of 1977, that recession was still with us. It is difficult indeed to put on an export drive in the face of soft world markets--conditions which have led to a proliferation of Western trade controls even against each other. The toll on world trade taken by the Western recession is partly indicated by the decline in world exports in 1975 and 1976 as shown in the next to last row of exports in Table 5.5. When and if recovery comes, Eastern exports can be expected to rise somewhat more rapidly again and the deficits and debt service problems to become more manageable.

Second, another possible explanation is the fact that credit was, and still is, available to the USSR and Eastern Europe in the Euromarket at quite reasonable interest rates, below those for many of the LDCs (Theriot, 1979, p. 184). Under these circumstances, it makes sense not to abruptly cut off imports in instances where to do so would be very costly to the economy. The continuing availability of credit on reasonable terms may well explain the failure of the Eastern nations to achieve better balances than they had by 1977. This matter will be discussed again briefly in Chapter 6.

Before leaving this section, a few comments are in order regarding the hypothesis that CMEA nations might substitute trade with each other for forgone East-West trade. Since the available data are based on changes in the value of trade including price increases, evaluation is very tentative.¹ There were big increases in intraCMEA trade in 1975 but these were undoubtedly largely the result of the sudden rise in intrabloc trade prices under a new pricing formula designed to take account annually of world inflation. The new pricing formula must also have been responsible for price increases in 1976. Despite price increases, Hungary's trade with CMEA declined by one-third, Romania had a decrease in the value of exports and small increase in value of imports, and the USSR and GDR had such small increases in value of trade that most certainly the real volume of their trade with CMEA also declined in 1976.² In 1977, all nations had larger increases in intraCMEA trade but, with the exception of Romania, not significantly larger than trade as a whole grew.

To sum up: intraCMEA trade apparently failed to increase very rapidly in real terms over the period 1975-77. This might have been due in part to the relatively low growth in GNPs especially in 1976-77. On the evidence, however, we are forced to conclude that intrabloc trade has not, so far, represented a significant substitute for East-West trade and, therefore, a way of reducing hard currency deficits.³

¹Data are available in CIA, Handbook, 1978; US Dept. of Commerce, Selected Indicators, 1977; and Kohn and Lang.

²Official Soviet data on volume of trade show Soviet trade with CMEA increasing in 1976 by about 3 percent whereas trade with Developed Capitalist nations increased by about 20 percent over the same period.

³Calculated from data presented in US Dept. of Commerce, Selected Trade, p. 2.

Capital Flows

So far we have been concerned only with the current account in the balance of payments. What are the possibilities of gaining time in the short-run through additional capital flows? Do the potentialities for capital inflow change the significance to be attributed to a given ds/x ?

The CPEs have only the most rudimentary capital markets--if they can even be called that. There is no such thing as a stock market. With the exception of a limited number of joint ventures in some of the Eastern nations, foreign ownership of shares of an enterprise is forbidden. Explicit interest rates on funds are very low by Western standards. These factors reduce the flow of private funds into the CPEs.¹

Another factor reducing the flow of funds is the total inconvertibility of bloc currencies. Problems relating to inconvertibility were discussed earlier and need not be discussed further here.

On the other hand, there are factors which encourage further investment, private and governmental. Private capital is encouraged by the fact that the capital is guaranteed regardless of the success of the enterprise in which it is invested. That is to say, there is no project risk--Eastern governments assume responsibility of repayment under all circumstances. Another factor: while CPEs pay very low rates of interest on funds held by them, they are willing to pay competitive rates of interest on loans to them by banks and by nations. (On the other hand, they have shown themselves unwilling to pay rates which they deem unfairly high.) Third, as noted earlier, many private and government investors accept repayment in kind over time. There is substantial anecdotal evidence from American investors that the implicit rates of profit and interest on these investments are very high and that the CPEs know it. That is, the CPEs cannot officially countenance very high explicit rates of interest on credits and investment but will knowingly pay such rates when they are hidden in the costs of and returns on a project.

Fourth, officially speaking, there is no devaluation risk. All loans and investments are serviced in the lenders' rather than the borrowers' currencies--since the borrowers' currencies are all inconvertible. This leaves the lenders with an inflation risk, of course, but this is no different from the risk on domestic loans. Fifth, there is, of course, still the risk of default if the CPE turns out to be truly "non-creditworthy." However, it is unlikely that a CPE would out-and-out default on a loan. More than likely there would be a stretch-out on repayment. What does a stretch-out involve? For the lender, the stretch-out usually means that he gets his interest as before but amortization is extended over a longer period. If the lender has more profitable opportunities for investment, he loses the difference between the rate of return he is getting from the CPE and that currently available to him. The difference could be trivial or zero and the loss insignificant. Sixth, recent events suggest that debt problems may loom largest for the CPEs during Western recessions. These are the times, of course, when

¹In contrast, witness the vast flow of OPEC surplus funds into Western banks and other financial as well as non-financial assets.

Western businessmen are most anxious to export to the CPEs in order to cushion themselves from the effects of recession. So, to the extent that financing can be arranged, exporters will be strongly motivated to exploit the possibilities to the limit. Seventh, while the CPEs have built up what usually would have been considered fairly high ds/x's in the past few years, standards on these matters have been changing rapidly. The external debts of many LDCs have shot up even more rapidly as have the debts of a few advanced industrial nations. By rapidly evolving newer standards, the CPEs don't look so bad. Finally, in the case of the USSR, there is reason to believe that a substantial amount of gold is available in a pinch to service external debt. Certainly, with its gold, oil, and gas (not to mention saleable weapons) the USSR does not present a short-run risk.

Some Long-Run Factors - Oil, Grain, and the Western Business Cycle

Before leaving the question of Soviet creditworthiness, it is worth looking into future prospects. It is, of course, almost impossible to make future balance of payments estimates. Balance of payments projections which this writer has seen have always proved among the least reliable that the profession has produced. Nevertheless, the importance of oil, grain, and the Western business cycle to the hard currency balance of payments is sufficient to warrant some discussion regarding future prospects.

First, a few words on the Western business cycle. Earlier, it was evident that the major cause of the recent doubling of CMEA debt to the West was the recession in business activity, particularly in 1974-75. As a result of the recession, Western demand for Eastern exports fell catastrophically. Business activity picked up again in 1976, but preliminary estimates for 1977 (by OECD)¹ suggest that growth rates in Western Europe halved--to about 2 percent--and fell in the USA, Canada, and Japan as well. Not much improvement, if any, is expected in 1978. Longer run prospects are, of course, obscure. The persistence of stagflation, uncertainty regarding the international monetary mechanism, and uncertainty regarding the energy outlook all contribute a pessimistic hue to the future outlook. This suggests a scenario in which it will be difficult for the Eastern nations to expand exports. The result will be, possibly, larger deficits, and greater difficulties servicing and repaying debts. A further consequence will be a reduction in the expansion of East-West trade as the Eastern nations adjust by retrenching on hard currency imports. It is worth noting that the cyclical nature of Western economic activity will probably contribute to the balance of payments problems of the Eastern nations. If Western growth rates remained permanently low, the CMEA nations would adjust their import levels to a permanently low level of hard currency exports. On the other hand, rising Western growth rates lead to rising CMEA exports, then to rising imports. When Western growth then declines and CMEA exports fall, it is difficult to cut back imports without a few year lag. In the process a large amount of new debt is likely to be generated.

¹Cited in The German Tribune: Economic Affairs Review, 2nd Quarter, 1978, p. 7.

The future of the Soviet petroleum industry may be as important to the Soviet hard currency balance of payments as the Western business cycle. Oil has always been an important Soviet export, and for the past 15 years has been an important hard currency earner. However, with the increase in price of petroleum, this single product became by far the most important export to the West and by 1977 was responsible for more than \$5 billion in sales or for about half of the Soviet Union's hard currency earnings. As noted earlier, the Soviets are currently selling a larger percentage of their incremental exportable surplus to the West than has been true in the past and, no doubt, will continue to do so as long as it is feasible. The term "feasible" is used for several reasons. As noted earlier, the USSR attaches considerable importance to its role as supplier of petroleum to Eastern Europe. It also has growing internal needs for more of its petroleum output. Finally, as explained in Chapter 4, there is considerable question today regarding the future of the Soviet petroleum industry. Some experts believe that in the near future both output and exports of petroleum will stop increasing and in fact begin to decline. Of many serious consequences of such a development, not the least important will be the impact on the hard currency balance of payments.

It is impossible for this writer to forecast hard currency earnings from petroleum. However, utilizing a 300 equation econometric model of the Soviet economy (called Sovmod III), Levine and Bond (1978) made estimates based on the three different oil output projections presented above in Table 4.9 (p. 37). These estimates, it should be stressed, do not just look at the demand for and supply of petroleum in estimating the exportable surplus but in theory take account of all the repercussions on the economy as represented in the hundreds of equations. One must certainly have reservations regarding this exercise in light of the fact that the predictive ability of the much more tried and tested models of US economic behavior have left much to be desired. For what they are worth, the model (Sovmod III) predicted the following:

(1) If official Soviet plans are fulfilled, hard currency earnings from sales of oil to the West will rise high enough to meet Soviet needs for imports of machinery and grain and to reduce the debt service ratio. This assumes that reasonable attempts are made to substitute other fuels for petroleum in domestic use and to not meet all of the rising requirements for petroleum by East Europe.

(2) If the CIA prediction is accurate, fuel exports will fall in the 1980s and, in fact, the USSR will be a net importer by 1985. Imports of machinery and grain will fall with detectable consequences on the Soviet domestic economy. By 1985 the ds/x would approach 1.00--an unsustainable level. Even the sale of all of their gold would hardly make a dent in the hard currency problem.

(3) If the Western specialist projections are realized, exports of fuels decline after 1980. It is assumed that the Soviets will continue to import machinery on a large scale with the result that the external debt rises and the ds/x approaches .40 by 1985. At this point, if not earlier, the USSR will face serious credit problems and will have to begin sharply curtailing imports, particularly of grain.

Let us turn to grain. Imports of grain and other food products from the

West have constituted a substantial hard currency drain on the USSR since the poor harvest of 1963. From 1972-1975, the USSR spent roughly \$6 billion in convertible currency on imports of grains and another \$2.8 to \$4 billion were expected to be spent in 1976. About one-third of these amounts were spent in the United States.¹ What does the future hold?

A recent study by climatologists published by the CIA (1976) takes a relatively pessimistic view. It is well-known, of course, that crop output is sensitive to climatic conditions; the importance of climate is quantified in this study. Generally speaking, it found that the large grain imports in the mid-sixties were associated with low precipitation, that the relatively good crops which were harvested in the late sixties and early seventies (with the exception of 1972) were associated with high levels of precipitation and that the disastrous crop of 1975 was directly related to very adverse weather conditions. In the view of this study, the year 1975 represents another turn in the cycle--the beginning of a relatively long period of below-average precipitation.

If below-average precipitation is experienced and output falls below trend, imports from the West will have to be high or the following consequences may follow: reduced consumption of grains by the Soviet population; reduced exports of grain to Eastern Europe; and reduction in livestock herds and in future meat consumption. The implications of these consequences are obvious from earlier discussions above. If output falls as expected and grain is imported to make up the shortfall, Sovmod III predicts the following hard currency grain imports (\$ millions):

Table V.6
Estimated Hard Currency Imports of
(\$ millions)

1976	3,000 (actual)	1981	3,009
1977	1,200 (actual)	1982	3,069
1978	1,512	1983	2,087
1979	1,543	1984	1,703
1980	1,967	1985	1,737

Source: Levine and Bond, 1977, p. 18. Actually, these calculations assumed that the weather patterns from 1978-85 were identical to those experienced over 1961-68 in terms of temperature and precipitation.

¹Posthelsinki, pp. 736, 820, 821.

Hard currency expenditures of these magnitudes would be a burden, no doubt, especially in consideration of the petroleum scenarios presented earlier. As with the petroleum projection, we cannot vouch for the reliability of these figures. Nor can one predict just how much of the short-fall the USSR would be willing and able to finance should the pessimistic grain projection be realized.

The upshot of this analysis of outlooks for petroleum and grain is that if the Soviets have "bad luck"--and some Western specialists are, in fact, predicting "bad luck"--then hard currency problems are going to get worse fast. So, for example, if we take 1977 as a starting point, the USSR had \$11.3 bn. of exports, 13.7 bn. of imports for a trade deficit of \$2.4 bn. (Table 5.1). Over the same year, the debt increased by \$2 bn. (Kolarik, p. 198).¹ All other things equal, the pessimistic scenario would imply, that by 1985, imports of grain would be, say, \$.5 to \$1 bn. higher and hard currency exports would be down by approximately \$5-1/2 to \$6 billion since petroleum exports were about half of total hard currency exports in 1977. (This leaves out the possibility that the USSR might have to import petroleum.) This implies an increase in debt of close to \$10 billion annually. Should this come about, the USSR would rapidly become "non-creditworthy," of course, and would have to retrench seriously. Putting the pessimistic assumptions into their econometric model, Levine and Bond (1978, Wharton, p. 43) estimate that the hard currency debt service ratio, which is estimated by the model to be .26 in 1980, would rise to .53 by 1984 and to .99 by 1985 (as noted above). However, neither the oil and grain predictions nor the model can be taken as completely trustworthy (we all know that weathermen, for example, never bat 1000) and it seems unlikely that the most pessimistic scenarios quantified above will be fully realized. Furthermore, it seems highly likely that if such scenarios do begin to develop, policies will be adopted to offset their effects to keep the external debt within reasonable bounds. That this would be the case is suggested by the big improvement in trade deficit experienced in 1977 (Table 5.1). Finally, of course, much will depend on the Western business cycle: full employment and vigorous growth will help to bail the USSR out of its deficit and credit problems; on the other hand, continued or deeper recessions and lethargic growth in the West would make the Soviet Union's adjustment problems more difficult--and could sink the ship for some of the weaker Eastern European nations which depend more heavily on sales of manufactured products for their hard currency earnings.

Given less than the most pessimistic assumptions with regard to grain, petroleum, and the Western business cycle, then it is difficult to believe that the USSR's debt would be likely to increase to the point at which it was deemed uncreditworthy. If its earnings from petroleum sales to the West don't evaporate completely and its imports of grain remain modest, then all other things equal, its debt will rise slowly. Under these circumstances, the adjustment required on

¹It is a little difficult to reconcile a \$2 bn. increase in debt with a \$2.4 bn. trade deficit since the USSR is usually estimated to earn a few \$billion in sales of gold and arms not to mention receipts from shipping and tourism.

the import side to achieve balance can be implemented at a much more leisurely pace than has been true in the past few years. A policy designed to reduce imports over a longer period would concentrate on the non-essentials--and a brief look at the enormous variety of products imported by the USSR from the West makes it obvious that its imports are not all essentials. The cost to the USSR of reducing imports of products which are non-essential is not inconsequential, but to a nation whose hard currency imports represent no more than 5 percent of its GNP, it cannot represent a large loss. Viewed in this light, and in terms of the authoritarian power wielded by Soviet leaders and, finally, in terms of the enormous resources available on the Soviet land mass, it would seem very unlikely that the Soviet debt would rise to an extent that the nation were deemed uncreditworthy.

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Chapter VI : US Credit Policy Toward the USSR

Introduction:

The counterpart of the credits received by the Eastern nations, as discussed in Chapter V, are the loans to these nations by the developed industrial nations of the West, their enterprises, banks, and international financial organizations. Correspondingly, credits received by and investments in the USSR by Western nations have been partly financed by US credits.

In various parts of Chapter II, we have briefly documented the history of US credit relations with Russia and the Soviet Union:

Modest investments in Czarist Russia by American banks, insurance companies, and industrialists.

US Government loans to the Kerensky Government in 1917.

Lenin's repudiation later in 1917 of all foreign debts and nationalization of foreign property.

American financing of investments in the USSR during NEP (1921-28) and the first Five Year Plan (1928-32).

The prohibition of credits to virtually all nations in 1934 as a result of the Johnson Debt Default Act.

War-time lend-lease.

Cold war credit policies which lasted much longer and are still more restrictive than those of other Western nations.

The relatively restrictive character of our recent credit policies toward the Soviet Union--both before and after the Soviet invasion of Afghanistan--to some extent dictates the nature of the remainder of this chapter. Why has the United States been out of step with its Western allies? What kind of policies would best have served our domestic economic interests? What are the political and economic tradeoffs? What kind of credit policy is most consonant with the kind of liberal international economic order that this country has generally espoused? These are the kinds of issues which are in the background of the analysis.

In analyzing US credit policies, it is important to keep in mind that the extension of credit is always only one of several facets of a transaction. Other major facets are the nature of the commodity or service which is being bought or sold and with whom the transaction is. In some circumstances, extension of credit in a transaction will be judged on the basis of purely financial criteria. Under other circumstances, whether or not credit should be extended and on what terms will depend on the nature of the transaction. To take an extreme example, if an American company applied to the Ex-Im Bank to assist in financing the export of an advanced weapons system to an Eastern European nation, the decision on the extension of credit would be entirely subsidiary to the prior decision by the Export Control Board as to whether the product should be exported under any circumstances. In what follows, we confine ourselves to purely credit policies and types of transactions in which credit terms play a determining role, abstracting for the moment from other issues.

Credit versus "Aid"

Given the relatively hard-line attitude which has characterized much of our post World War II attitude toward communist nations, it is perhaps worth

considering first a relatively extreme position which has been taken by several eminent opponents of a liberal credit policy toward these nations. In 1964, Secretary of State Dean Rusk argued that: "...long term credits amount to an extended advance of resources to the purchasing country and, in that sense, they have some of the characteristics of foreign aid..."¹ (italics supplied). Senator Adlai Stevenson voiced similar views in 1975: "...when allocated to industrial and energy development, instead of routine sales of finished US goods, credits take on the character of foreign aid...These exports accelerate the development of the Soviet Union..."² On these grounds, Rusk and Stevenson proposed severe limits on extending credits to the USSR. While these statements have an intuitive appeal, I believe that they are analytically unsound.

There are two ways of looking at the question: from the standpoint of the lender and from that of the borrower. From the standpoint of the lender, the Rusk-Stevenson position would be correct if credits were granted at interest rates which are below the domestic market rate--so-called concessionary rates--or below the rate of return on domestic investment. (This is the usual technical definition of economic aid.) It is true, of course, that US commercial bank loans which are guaranteed by the Ex-Im Bank (below) usually do carry concessionary interest rates. However, neither Rusk nor Stevenson depends on concessionary rates in their definitions of what constitutes economic "aid." One might also argue that the lending nation loses--and therefore is extending aid--if credit is in short supply at home and the extension of credit either deprives some domestic investors of the opportunity to invest or, what amounts to the same thing, drives up the domestic rate of interest. (An analogous argument was made when sales of grain to the USSR in the early 1970s, the so-called great grain robbery, caused domestic shortages and drove up food prices.) This second argument is harder to sustain because it says nothing about the rate of return on the loan; it is certainly conceivable that the return on the loan could exceed the consequent losses to the domestic economy from the shortage of credit and reduction of investment.

The more common way to view the Rusk position--and this is the way Rusk and Stevenson appear to have viewed it--is from the standpoint of the gains to the borrower. In effect, the loan makes more resources available to the borrowing nation--and that is Rusk's definition of foreign aid. This is a very misleading definition for, by the same token, one could argue that ordinary commodity trade is aid since it increases the value of the resources available to a trading nation. This assumes of course, that a nation gains from trade. Some hypothetical examples may clarify these points. Suppose a nation borrows \$1 million at 4 percent interest which is to be repaid fully in ten years in a single payment that will amount to 1,480,000. Suppose that the \$1,000,000 is invested instantaneously and that the marginal productivity of capital in the borrowing nation is 6 percent. In this case, at the end of ten years, the borrower will have accumulated an additional \$791,000. After repayment, the borrower will have a profit on the transaction of \$311,000 over the ten-year period. If the rate of return on capital were 8 percent, the ten-year gain would have been \$678,000. For purposes of comparison, suppose now that a nation is able to export abroad at a 5 percent higher price than at home, and import at a price that is 5 percent below the cost of producing an import substitute. This amounts to a 10 percent profit on

¹US Senate, 1964, p.

²Marer, 1975, p. 38.

balanced trade. Balanced trade in one year of \$10,000,000 would generate savings, then, of \$1,000,000 which could be invested as above but without the necessity of repayment. The gains over 10 years from this investment would amount to \$1,629,000 at a 5 percent marginal productivity of capital; \$1,791,000 at 6 percent; and \$2,158,000 at 8 percent. Or to put it another way, under our assumption, balanced trade of \$1,734,000 in one year would provide as large benefits over a ten-year period as would a \$1,000,000 loan that has to be repaid in ten years when the marginal productivity of capital is 6 percent; balanced trade of \$3,139,000 is required if the marginal productivity is 8 percent.

What do these figures tell us? The first lesson is that the gains to a borrower from a loan are not necessarily different from trading commodities with him at prices that yield a profit. As a first approximation, it could then be argued that if we are prepared to engage in peaceful trade with a nation, it is inconsistent not also to be willing to extend loans.

In rebuttal, it will be argued that a loan enables the borrower to invest more in the current period than would otherwise be possible. This may well be true, particularly given the "overfull employment" characteristics of the CPE's (although usually more savings can be made available, when absolutely necessary, by squeezing the consumer a little harder). Granting that it is true, it is nevertheless misleading. For, at the end of the ten-year period the borrower has to repay principal and interest to lender, a transaction typically viewed as a hardship by borrowers. At that point in time, there is a net transfer of resources available for investment from borrower to lender. Further, not only are the resources for investment made available at that time to the lender, but unless the lender has been extending credit at a rate of interest below the marginal productivity of capital at home, then the lender as well as the borrower is richer than would have been the case had the transaction not taken place. Can one designate a transaction as "giving aid" when the donor (as well as the recipient) benefits from the transaction? Perhaps --but it seems to me that the designation' then loses most of its cutting edge. Admittedly, one would have to take account of the relative benefits to the donor and recipient and it might be that the recipient gets the lion's share.¹ For example, if the US loaned the USSR \$50 billion over a 10 year period without requiring repayment for 20 years and these loans allowed the USSR to significantly increase its growth rate, compete with the US in world markets, and build up its military capabilities, then it would undoubtedly be appropriate to argue that the USSR is being unduly "aided." It seems hard to conceive under the above conditions, that any feasible rate of interest could repay the United States for the risks it would incur before repayment. In effect quantitative differences become qualitative under extreme conditions. On the other hand, it must be recognized that the USSR is an enormous country and it would be unlikely to receive enough credit or on good enough terms to significantly affect its economic or military standing. By the same token, it should also be recognized that small countries with large foreign trade dependencies, especially limited resource countries, gain enormously from trade. Without foreign trade, Japan could never have attacked the United States at Pearl Harbor; Great Britain would have remained largely a rural paradise; and the oil rich Middle East nations would forever be exclusively the home of destitute nomads. Certainly, greater gains are to

¹The argument and examples of the preceding 4 paragraphs are taken from this writer's testimony before the Williams Commission set up by President Nixon in 1970 to study US trade and investment policies (Holzman, 1971).

be had by such nations through trade than through any reasonable amount of credits.

To sum up: one should not assume that all loans are aid and thereby outright preclude loans to, say, the USSR. Rather, the lender should confine its loans (if it wishes) to those from which it garners a fair share of the benefits within a reasonable time period. If one considers economic relations between nations to take place over time horizons that exceed the immediate present but do not extend beyond the foreseeable future, then there would appear, in principle, to be not much, if any, economic difference between trade with, and extension of credit to, another nation.

US Lending Institutions

Credit to Eastern European nations may be granted by individuals, corporations, commercial banks, or by the Export-Import Bank and other government institutions. Generally speaking, most individuals or corporations finance only a small part of the credits which are extended, borrowing the rest from a large commercial bank or consortium of banks. A substantial part of all of these credits are then guaranteed against both economic and political risks by the Export-Import Bank and this makes it possible for the credit to be extended on better terms than available in the private market. Ex-Im Bank guarantees are designed to aid US exporters to compete in world markets.

Most commercial banks are limited, as a result of federal legislation passed in 1864 with regard to national banks, to extending no more than 10 percent of their total equity capital to any one borrower.¹ Credits which the Ex-Im Bank guarantees are exempted from this constraint. The purpose of this law was to force banks to diversify their lending. In 1972, the Comptroller of the Currency determined that, in the case of the centrally planned economies, loans made to their foreign trade organizations, enterprises, or banks, are to be viewed as being made to one and the same borrower, viz. the nation in question. This determination stems from the fact that all (or most) industry is nationalized and belongs to the state and it is the state which is, in effect, borrowing through the agency of its own organizations. As a result of this interpretation, the major US commercial banks were limited in the amount of unbacked (by Ex-Im Bank) loans they can make to any of the Eastern European nations to \$2.84 billion (as of June, 1977) and to all of them as a group including the two international communist banks, IBEC and IIB, to slightly over \$25 billion (Kolarik, 1979B, 212-213). Since loans to the USSR already amounted to about \$1.6 billion, that nation could expect to receive little more than \$1 billion additional credit from this source--unless the Ex-Im Bank were willing to step in with guarantees. On the other hand, the remaining Eastern nations plus IBEC and IIB have received a total of only about \$3-1/2 billion in credits and there is considerable room for further unbacked loans to them. Moreover, since they are each, economically, much smaller than the USSR, the 10 percent limit is a lesser constraint in the short-run. Over the longer-run, of course, the constraint could be more severe. It puts a limit on lending to the communist nations which does not exist for other nations. So, for example, in contrast with the theoretical maximum 10 percent of equity capital limit on lending to communist nations, Venezuela, Mexico and Brazil had actual loan to equity capital ratios of 14.4, 32.7 and 33 percents, respectively, as

¹As the equity capital of the banks in the system gradually increases, so would its lending potential.

of June 1977 (Kolarik, 1979B, p. 212). There is, in fact, no maximum ratio for any non-communist nation as a whole, only for its individual enterprises and banks.

The Comptroller's decision in 1972 caused dissatisfaction in various quarters, not only because of the limits imposed on bank lending to the communist countries, but because nations like Italy, Mexico and Brazil have numerous state-owned enterprises and organizations which trade on world markets and were affected by the new decision. As a result of these problems, the Comptroller issued a new ruling in January 1978 which made it possible for individual state entities (banks or enterprises) to be dealt with separately from their governments. In order to qualify, an entity had to meet two requirements in the form of "purpose" and "means" tests, and provide a lot of information. The "purpose" test is to assure the lender that the proceeds of the loan are applied for the purpose stated which is necessarily for its own economic activities, and not for general government usage. The "means" test is to assure the lender that the borrower has the means to repay the loan and that these means are not substantially dependent on the revenues of the central government. A considerable amount of documentation, financial and otherwise, is required of the borrower for assessment of the "purpose" and "means" tests. Since this new regulation was put into effect, Chase has made a loan to a Polish copper mining combine as an individual entity. How many more such loans will be made is hard to say. A major impediment to Soviet recourse to the new regulation is likely to be its reluctance to make public the financial information required or to allow on-site inspections of its enterprises. (This regulation is discussed further in the last section of this chapter.)

The Ex-Im Bank, though an agency of the US Government, is independent financially of the Government. Its finances depend upon earnings from its transactions, a capital stock of \$1 billion originally subscribed to by the US Treasury, and its own borrowing from the Government or private market. Most of Ex-Im's activities are concerned with guaranteeing and insuring loans made by private individuals and banks with the purpose of facilitating US exports. Ex-Im also provides direct loans to various foreign importers including, at present, loans to buyers from Poland and Romania. Direct loans are also extended to supplement corporate and commercial bank loans in trade with these same two socialist countries. All socialist nations are presently excluded from US Government assistance by the Trade Act of 1974 with the exception of Poland by virtue of its MFN status and Romania and Hungary, exempted in 1975 and 1978, respectively, by virtue of having had the freedom of emigration provisions of the Trade Act waived (below). The USSR is presently excluded by virtue of having renounced in 1974 the US-USSR Commercial Agreement of 1972 and being subject to the emigration provisions of the Trade Act.

In its guarantee and insurance functions, Ex-Im operates in cooperation with various other organizations. The Federal Credit Insurance Association which is made up of dozens of private insurance corporations is one such organization designed to insure short term credit. The so-called Cooperative Financing Facility (CFF) is a device under which Ex-Im extends medium-term lines of credit to selected financial institutions outside the US. These "Cooperating Institutions" are usually branches of US banks in Europe, a number of West European and Japanese banks which do business with the socialist nations, and the Foreign Trade Banks of Poland and Romania. For smaller trade deals, the Ex-Im has a Discount Loan program under which it makes loans against importer promissory

notes.

In May 1971, 55 large US commercial banks involved in export financing plus some industrial corporations formed The Private Export Funding Corporation known as PEFECO. The purpose of this Corporation is to make loans to foreign importers of US products. PEFECOs loans are guaranteed by Ex-Im and subject to Ex-Im approval regarding terms. As a result of its connection with Ex-Im, socialist loans by PEFECO are currently restricted to Poland, Hungary, and Romania. These are the major, but not the only, US organizations involved in financing East-West trade. Others are the Overseas Private Investment Corporation (OPIC) and, for the export of agricultural products, the Commodity Credit Corporation as well as shipments made under Public Law 480 financing.¹

A major impression to be derived from the preceding paragraphs is the dominant importance of Ex-Im in the financing of US trade, including East-West trade. Ex-Im participation in one form or another, it is often argued, is almost necessary if an American exporter can hope to compete. As we shall see below, the assistance of Ex-Im is often justified because most of the advanced industrial nations have similar institutions which facilitate and subsidize exports including those to Eastern Europe. The extent to which Ex-Im facilitates East-West trade is to a considerable extent a political matter and this may explain why US credits to and trade with the socialist nations are relatively so small at present.

US vs. Other Nations in Extending Credit in East-West Trade

The major credit-granting nations in East-West trade are France, UK, West Germany, Japan, and Italy. All of these nations have government or quasi-government financial institutions which perform functions similar to those of the US Ex-Im Bank.² The breakdown of official credit support (OCS) is by no means identical between nations. For example a larger percentage of US support takes the form of direct loans and discounting of export obligations held by American banks than does that of other Western nations; they, on the other hand, give a larger percentage of loan guarantees and insurance. Ex-Im also tends to support relatively more long-term loans with greater than 5 year maturities than do the Europeans.

In terms of total credit support, the US falls far behind (percentage-wise) all the nations but West Germany. So, for example, whereas the share of exports (1973) with OCS ranged from 23 to 76 percents for France, UK and Japan, the comparable US figure was only 9 percent. US performance with regard to East-West trade was even "worse." For example, France's OCS of trade with CMEA nations was 8 times higher than that for trade with comparable Western nations. The other Western nations also favored CMEA trade with 2-4 times as much OCS from 1963-1970 and 3-7 times as much from 1971-1973. The US, on the other

¹These details and others are available in Porter, 1976 and Garland, 1977

²Details of the operations of these institutions are available in the book by Porter cited above. Most of the information provided in this section is taken from the very informative article by Thomas Wolf, "East-West Trade Credit Policy: A Comparative Analysis," in Marer (ed.), Financing..., pp. 149-198.

hand, gave less OCS to CMEA than to other nations.¹

It is, incidentally, interesting that the USSR has been the most favored of the Eastern nations by this standard. It is worth stopping for a moment to consider why the CMEA nations have received more OCS per dollar of imports than other nations from Western Europe. Six considerations, some fairly persuasive, have been adduced to explain this unexpected fact (Wolf, 182ff).

- 1) Greater need--due to a rapidly rising hard currency debt.
- 2) In the eyes of Western exporters, trade with Eastern nations involves greater commercial and political risks than trade with Western nations.
- 3) The percentage of capital goods imports to total imports is somewhat greater.
- 4) The communist countries are more sensitive and resistant to high interest rates.
- 5) Soviet Bloc foreign trade monopolies can bargain harder on terms.
- 6) Encouragement of East-West trade is part of Western foreign policy.

The political element in granting of credits shows up, differentially, in the official establishment of lines of credit arranged in bilateral agreements between Eastern and Western nations. For example, a Franco-Soviet Agreement for the 1975-79 period arranged for the extension of \$3.75 billion worth of credit. Similar arrangements have been made at least by the UK and West Germany if not other Western European nations and Japan. In February 1975, Deputy Foreign Trade Minister V. Alkhimov revealed that roughly \$8 billion in government-insured credits had recently been made available by Western Europe and Japan. Arrangements like these provide a much securer atmosphere for the business community and certainly encourage East-West trade in those countries which have them. As of the end of 1977, out of governmental credit lines totalling an estimated \$12.8 billion which had been made available to the USSR, the US share was only \$469 million (Lenz and Theriot, p. 223). The special terms which are provided by OCS involve, in effect, better terms than the free market and therefore involve subsidies in various forms. Wolf (pp. 165-166) makes two different kinds of calculations of the subsidy element of OCS under 1974 conditions for trade in general, not just East-West trade. The first estimates the extent by which OCS lowers the US effective interest cost. He finds that OCS drops the American credit charge from about 12.75 percent to an 8.38 percent effective rate. Most other nations have a higher private rate and a lower effective rate due to OCS. Japan's OCS was less than ours but their effective rate was only 7.39 percent because their private market rate was only 10.8 percent. West Germany was the only nation with a higher effective rate of interest (9.25%) than the US. Wolf's other calculation was to estimate the amount of subsidy on a hypothetical 10-year buyer's loan. The results were: UK - 19.6%; France - 19.2%; Italy - 16.5%; Western Germany - 11.1%; Japan 10.3%; and US - 5.0%. The low US figure is due in part to the lower interest rates in our private markets.

Despite these calculations which suggest that the United States subsidizes

¹The Ex-Im Bank, in a Report to Congress in 1975, felt that in almost every dimension, European credit terms to Eastern Europe were better than those of the US: interest rate, percentage of government finance, repayment terms, financing of local costs, insurance against inflation and exchange rate changes. (Cited in Marer, Financing..., pp. 30-31.)

trade less than other nations, a May 1974 survey of exporters showed that the respondents felt that no more than 2 percent of their export sales had been lost because they were not financially competitive. This suggests that financial terms are less important than many other variables or that the private US financial market needs less OCS than those of other nations in order to be competitive. One other factor was suggested by Brainard (p. 199) in his comment on Wolf's paper, viz. that our higher rate of inflation than many European countries had the effect of reducing our relative "real" rate of interest thereby making our loans more competitive than nominal interest rates suggested.

Ex-Im Programs and Credit-Granting Criteria

Before turning to specific US credit policies toward the USSR, it is worth pointing out that the use of the Ex-Im Bank to directly finance or facilitate exports in general is not uncontroversial.¹ Probably the major argument made for Ex-Im intervention is the necessity of helping US exporters to compete with foreign exporters who receive similar assistance from their own institutions. This position has been criticized on several grounds. It has been demonstrated that most of our exports would be competitive without Ex-Im support (Bohi, pp. 82-85). Further, the cost to the country of Ex-Im subsidies is not small and mostly tends to benefit the foreign importer, not the national exporter. Third, while it is true that Ex-Im may help our exporters meet unfair competition and help our balance of payments, it is also true that exports may assume a larger role in the economy than is warranted by the economics of the situation, thereby causing losses to society from misallocation of resources. Finally, a much stronger case can be made for the necessity of meeting foreign credit competition under fixed than under our present system of floating exchange rates. For, to the extent that foreign credit subsidies would enable other nations to outcompete us in export markets, the exchange rate tends to depreciate under floating rates thereby lowering the foreign exchange price of our exports even without subsidies.

Assuming that Ex-Im credit is nevertheless appropriate, what are the various criteria which might be used in determining whether and when to extend credit to the USSR?² Most important, of course, is assurance of repayment. As noted in Chapter V, assurance of repayment is a much simpler criterion in the case of communist countries because of the absence of project risk. Eastern governments stand behind the debts of their projects regardless of whether they are successful or not.

A second criterion (or set of criteria) is to take into account the effect of export credits on the US domestic economy--on US domestic shortages, price level, employment and output. The rise in food prices in 1972, as a result of exporting grain to the USSR, is a dramatic example, in the eyes of many, of when not to grant export credits (discussed in Chapter IX). On the other side of the fence, one could make a good case for extending credits to help develop Siberian petroleum and natural gas reserves because of potential US shortages of these fuels for the foreseeable future. (The "advanced technology" case is discussed below). These examples aside, there are not many instances in which this criterion would prove determining. The major reason why this is true is the relatively limited extent of US

¹We cannot do justice here to the many arguments, pro and con. Cf. Marer (ed.), US Financing...., especially the contributions by Bohi, Branson, Horvath, Cruse, and Wigg.

²Hardt and Holliday in Marer (ed.), US Financing...., pp. 292ff.

engagement in foreign trade, especially with the USSR.

Third, despite the generalized objections to Ex-Im OCS presented just above, some have made a special case for granting OCS to trade and investment in Eastern Europe and the USSR on what might be called "infant industry" grounds. That is to say, trade and investment in this region is relatively new, relatively expensive, and presents many special obstacles. Nevertheless, it promises large rewards (profits, balance of payments, etc.) partly because East-West trade had clearly not yet reached optimal levels and partly because the US, as a result of its relatively restrictive legislation in the past, had not gotten its fair share of that trade. Further, some of the projects (Siberian energy, Kama River Truck plant) are so large and long-term as to be virtually impossible without government assistance. Finally, of course, our enterprises do face government-assisted foreign competitors so that, without Ex-Im, our chances of getting a fair share of this market are sharply reduced.

Fourth, in extending OCS, the impact of the exports on US technological and security positions should be taken into account. The security aspect is one which should be analyzed in political and military rather than financial terms and is better discussed in other chapters (Ch. VII). In addition to military-related technology, the United States has been a world leader in the output of many civilian goods embodying advanced technologies. Our leadership has been a function of several factors, among them large R&D expenditures and producing for large markets, including export markets. Maintaining comparative advantage in products embodying advanced technologies is not static—like the US comparative advantage in grain or Saudi Arabia's in petroleum—but dynamic, requiring constant new R&D and new markets. In fact, a rather close inverse relationship has been observed over time between sales and costs of production—as sales increase, unit costs decline. It is, therefore, in the interests of the enterprise and the nation to encourage such exports.

Two objections are often raised to the preceding statement. First, it is argued that by exporting the products of advanced technology, one is in effect selling the goose that lays the golden eggs. This may have been true in the past when a new technology could be deduced and replicated from a product embodying it. Such so-called "reverse engineering" is quite impossible today with most advanced products—current technology is far too complex. Further, as noted elsewhere, while this fear might be justified in the case of Japan, it is not in the case of the USSR since it appears far beyond the capabilities of Soviet entrepreneurship under present institutional arrangements (cf. Chaps. III, VII).

The second objection has to do with subsidies. We have already noted the subsidies which are included in Ex-Im OCS. To these must be added R&D subsidies in the case of high technology exports. We refer here to the large amount of R&D expenditures financed either directly in government-sponsored laboratories or indirectly by subsidies to private research organizations. The combination of these two types of subsidies undoubtedly sometimes leads US exporters either to sell at lower prices or to reap larger profits than would otherwise be the case. To the extent that this happens, there may be a substantial gap between private profit and US social gain, a gap which represents possibly unnecessary profits transferred to some foreign importers.

We have already debated briefly the Ex-Im subsidy issue. The question of R&D subsidies is discussed in detail in Chapter VII. Our conclusion is that to the extent that Ex-Im subsidies and R&D subsidies are viewed as advantageous, then they should be pursued regardless of the fact that there may be some costs to us

which are reflected in the accounts of other nations as profits. Under relatively normal conditions such as prevailed during the 1970s, it would seem appropriate for Ex-Im to make or guarantee loans to the USSR even for high technology products on the same basis as to other nations. To not do so would be equivalent to denial of MFN since it would be, in effect, discriminatory credit policy. On the other hand, given the state of political and economic relations between the two nations shortly after the invasion of Afghanistan, it would certainly be inconsistent with other policies to extend subsidized credits to finance Soviet imports. The amount of possible gain to the USSR from such subsidies would undoubtedly be small, of course (Chapter IV), and the US should view such an act as primarily symbolic. Since the USSR is unlikely to accept unsubsidized credits, particularly if OCS from other nations is available, then the US may lose more (in the form of lost exports) than the USSR from a discriminatory credit policy.

Implicit in the preceding discussion is a final criterion of credit policy, *viz.* its use as a lever in diplomatic relations. This criterion in fact has dominated our credit policy toward the USSR in the postwar period as it has dominated many of our other economic policies toward the USSR. How wisely and effectively we have employed it is discussed below.

Recent History and Future Credit Policies Toward the USSR

We described in Chapter II some of the credit relations in earlier periods between this country and the USSR. While our controls over commodity trade with the USSR gradually relaxed, this was not the case with our credit controls. The Johnson Act remained in force vis-a-vis the USSR during the 1960's, and Ex-Im was not allowed to participate in any way in credits to communist countries unless the President declared it was in the national interest. This prohibition was made explicit by Congress in legislation passed in 1964 (Kwiecinski, p. 215). While the President waived this prohibition for some Eastern European countries in the mid-sixties, the USSR was not included. In 1968, as a result of the Vietnam War, legislation was passed which took the power out of the President's hands and absolutely prohibited Ex-Im assistance to any nation which might be helping the nations with whom we were in armed conflict. The absolute prohibition was removed and presidential discretion restored in the Export Expansion Finance Act of 1971. President Nixon "determined" that it was in the national interest to allow credit transactions with Romania (1971), Poland (1972) and the USSR (1972). The USSR's position was changed by virtue of the US-USSR Commercial Agreement of 1972. Presumably, under this determination, the USSR was no longer subject to the Johnson Act of 1934. This would follow since the 1972 Agreement did include a settlement of the Lend-Lease Account (though not of World War I debts!).

More than \$1 billion worth of loans were extended to the USSR, with Ex-Im assistance, in 1973 and 1974 and many more projects were under consideration. However, in 1974 in both the Trade Reform Act and in the renewal of the Export-Import Bank, credits to the USSR were limited to \$300 million over a 4 year period, an amount which could be increased only by successful Presidential appeal to Congress. The \$300 million restriction resulted from the so-called Stevenson-Byrd Amendment and was potentially a serious blow to Soviet-American commercial relations because it more or less closed off the possibility of some very large (as well as small) deals being considered. It also was, along with the Jackson-Vanik amendment, probably the reason why the USSR renounced in Jan. 1975 the US-USSR Commercial Agreement of 1972 (see Chapter X).

The Trade Reform Act contained other restrictive legislation. Every loan to a

communist country of more than \$50 million required presidential determination that it was in the national interest. Further, Ex-Im credits were absolutely prohibited to those nations which restricted emigration of their citizens, and this included the USSR and most of Eastern Europe. Limitations were also established for energy-related transactions with the USSR. The Schweiker-Church Amendment to the Export-Import Bank Act forbade US involvement in exploration or production activities in fossil fuels in communist countries without approval of both the Executive Branch and Congress (Kwiecinski, pp. 240-244). This latter amendment, which is reported to have been hotly debated, was apparently stimulated by the multi-billion dollar Siberian oil and gas deals which had been discussed extensively in the press. Various congressmen opposed credit for such projects on a number of different grounds: unwillingness to be dependent on the USSR for supplies of a vital commodity, to assist the USSR in any way, and a feeling that all of our equipment, research, and exploratory resources should be used in developing our own natural resources, not those of the USSR.

Very little has changed since the US. Congress clamped the lid on OCS in 1974. The executive branch indicated on several occasions before Afghanistan that it would like to return to the status quo ante but nothing materialized.¹ Trade continued between the two nations but there obviously was a shift in Soviet emphasis back toward Western Europe and Japan which have continued to grant large credits.

The picture, then, has been one of "relatively" declining US-USSR trade largely the result of American discriminatory policies, among them a discriminatory credit policy. Given the freeze in US-Soviet relations attendant on events in Afghanistan, no change can or should be expected for awhile. The interesting question is: what should our credit policy be if political relations become normalized again? This, in effect, is the same question as: what should our credit policy have been during the detente of the 1970s and absence of the invasion of Afghanistan? Should we discriminate or should we treat the USSR on the same basis as other nations? We will not attempt to categorically decide this question but will, instead, present some of the pros and cons.

There are several arguments in favor of equal treatment. First, to the extent that our policy does not entirely prevent the Eastern nations from obtaining the credits they need, it is ineffective. It is politically unwise for the richest and most powerful nation in the world to espouse policies which are largely impotent in achieving their purposes. As we indicated earlier, US official export credits to Eastern Europe as of Dec. 1977, amounted to only 3 percent of those extended by the West to the USSR and less to each of the other Eastern European nations. It is noteworthy that within a year after the Stevenson Amendment severely limited Ex-Im credits to the USSR, the UK, West Germany, France, and Japan extended a total of official credits amounting to about \$8 billion. In fact, the Stevenson Amendment was passed at a time when annual Soviet hard currency earnings had just been increased by probably \$3 billion as a result of the rise in the prices of petroleum, natural gas and gold and the sale of arms for hard currency to the Middle East. This inability to get the cooperation of other Western nations in restrictive or even coordinated credit policies toward the socialist nations has

¹In January, 1979, Senator Stevenson introduced a bill which softened the impact of his earlier amendment. There appeared to be very little support for the bill in 1979 and, undoubtedly, it will not survive the Soviet invasion of Afghanistan.

plagued us since the early 1960's when we attempted to get the members of the Berne Union to maintain high interest rates, not extend long term loans, and in general to coordinate credit policies toward, rather than compete with each other

for Eastern business – to the latter's advantage. More interested in commerce and less interested in ideological battles, the other Western European capitals plus Tokyo have constantly broken with the Berne Union informal moral agreements when it has proved advantageous to them. To sum up: our attempts to restrict credits to the USSR have not hurt the USSR but have simply diverted lucrative contracts from our business community to those of other countries. (The same argument can be made regarding our export controls, of course--see Chapter VII.)

Before leaving this point, it should be noted that official financing has not been the only source of substitute funds for those denied by the United States. An alternative set of sources are the large private commercial banks in the United States¹ and in Europe which are lending often without subsidy. In addition, there is the special and growing subset of loans which emanate from banks in the Eurocurrency market. Between 1974 and 1977, these totaled more than \$8 billion, of which the USSR, received about \$1 billion (Kolarik, 1979A, p. 202). Banks in the Eurocurrency market are subject to fewer controls than most other banks and render control of credit policy toward the Soviet Bloc less rigorous than would otherwise be the case.

A second argument for a liberal credit policy toward the USSR which is based in part on the validity of the first argument is that this country stands to gain from the increased trade with and investment in the USSR. The United States has lost literally billions of dollars of sales in Eastern Europe and the USSR over the past 20 years as a result of its discriminatory trade and credit policies. For the most part at the national level, the gains from non-discriminatory policies would have added to our foreign exchange reserves; but there might also have been increased imports and there certainly would have been increased employment, lower costs of production, and larger profits in many of our export industries. The potential gains on all these accounts, while not large, were certainly not trivial.

In addition, we stood to receive products from increased trade and investment with the USSR which could have been important to our future. I refer, of course, to imports of oil and liquified natural gas (LNG). Given our energy shortage, and the fact that we import so much from the Middle East, it would appear to have to our advantage to have diversified the sources of our imports. But there are two sides to this question (below).

Another argument for more freely extending credits to the USSR is essentially an economic warfare argument. By letting the USSR get into debt to us, we have more control over our relationship with them. Further, to the extent that we encourage them to trade with us, we encourage East-West as opposed to intra-Bloc trade thereby loosening the economic ties in CMEA. As in the previous case, there are two sides to this question (below).

Our penultimate argument for extending non-discriminatory credit treatment to the USSR and Eastern Europe is the long-standing US commitment to a liberal economic order. Non-discrimination (in every respect) is a crucial ingredient of a liberal economic order. However, it is only fair to point out that this goal is one importance than in trade itself.

¹As noted earlier, however, the additional unguaranteed loans they can make to individual socialist nations, especially those to the USSR, are sharply limited by law.

which has often been sacrificed by the United States and other Western nations to short-term self interest when the occasion has required it or, when there has been substantial international economic disequilibrium, and the occasion has even demanded it. Further, non-discrimination in the credit sphere is certainly of lesser

Finally, it might be counter-argued that it is unwarranted to give the Soviet Union the benefits of liberal economic treatment when, by its innate nature, that nation cannot contribute to the support of a liberal order. This last argument is not a strong one against a liberal credit policy for, in effect, it invites the West to let itself be corrupted through its economic contacts with centrally planned economies.

Finally, it should be stressed that the Stevenson Amendment represents the one and only time in Ex-Im history that a nation has been singled out and specific limits placed on the amount of credit which may be automatically granted to it. In this regard, it represents blatantly insulting treatment in the eyes of the USSR although was probably not meant to be such by the authors of the amendment. If nothing else, more diplomatic methods of achieving closer surveillance of the amount of credit being extended to the USSR should have been sought.

This exhausts our list of possible reasons for not discriminating against the USSR in credit policy. Can one make a case against liberal credit treatment? Some of the arguments have already been hinted at above (e.g. the illiberality of Soviet policies). Probably the major argument made in the past against liberal credit policies has been based on "economic warfare" reasoning: the USSR is our major potential enemy and it is to our disadvantage to do anything which assists them economically or militarily. This argument has been discussed already in part in our critique of the Rusk-Stevenson views. It is also subject to the "ineffectiveness" criticism raised above. On the other hand, since it is agreed that our political relationships with the USSR are much cooler than those with most Western nations, it can be argued that even if we adhere to the principle of non-discrimination in credit policy toward the USSR, non-discrimination might be interpreted in this instance conservatively. Ex-Im Bank operations are not automatic but require administrative decisions. In making these decisions, tougher criteria regarding mutual profitability and credit terms might be applied to the USSR. This would, of course, still be discrimination, though watered down somewhat. A particularly negative aspect of this kind of policy is the necessity of having to place decisions on such matters in the hands of government officials who might be either incompetent or too biased, one way or the other, to implement them properly.

Another argument against more liberal credit policies is that the resulting debt can be used as a weapon against the US (Western Europe) and that the larger the debt, the more powerful the pressures which can be exerted. The debt may be (or is involuntarily) converted into a weapon only if default is threatened. At the moment, of course, there is not much possibility of default both because the Soviet debt is still not large by most standards and because the USSR undoubtedly has more to gain by its image of being highly creditworthy than it has from threatening default. If the USSR's debt were much larger than it is and defaults occurred, the losses to the nations and individual banks involved could be very serious and possibly threaten financial crises. The threat of default (however remote as it might seem at the moment) could probably be used by the USSR to gain economic concessions in two areas: still more credits in order to try

to save the day; and reduction of trade barriers to facilitate Soviet exports and, therefore, hard currency earnings. Threat of default might also be used to try to extract political concessions of one kind or another as well but it is impossible to guess now what form these might take. Were there, in fact, a threat of large-scale default, one could expect that a strenuous lobbying effort by threatened commercial interests that might have a strong influence on our Government and lead to unwise political actions. This is a possibility, though perhaps remote.

Still another possible argument for credit discrimination against the Eastern European nations and particularly against the USSR by US credit authorities, public or private, can be made. Creditors usually expect debtors not only to justify their projects but to provide an accounting of their financial viability. In the case of the socialist nations, since creditworthiness has little to do with the individual projects but everything to do with the nation's balance of payments and international reserve position, one would normally expect that this latter sort of information would be made available at the time credit is being sought. But, in fact, very little information has been forthcoming, particularly from the USSR. The USSR provides little more than total commodity trade figures broken down by country and commodity. Important data never presented are: a breakdown of trade into hard and soft currency balances, respectively; invisible account receipts and expenditures (transport, tourism, insurance, etc.), particularly in hard currencies; information on capital flows; gold production; gold and foreign exchange reserves; plans for ameliorating deficits; size and maturities on its debts; and so on. In effect, when the USSR negotiates for credit it asks the potential creditor to accept its creditworthiness on faith. There may be good reason to do so in the short-run, given the probable scale of its earnings from sales of raw materials, weapons, and gold--but such behavior is nevertheless a substantial departure from the ordinary rules of the game. Over the longer run, however, especially if the hard currency debt continues to rise, then it would seem to be appropriate, if not the better part of wisdom, for Western creditors to insist on more information. No information--no credit:

Finally, there are many who argue that while they do not object to granting credit to the USSR through Ex-Im, they do object to allowing the USSR as noted earlier, to borrow at subsidized rates. This viewpoint is not a surprising one. In fact, it is not very different, except perhaps in emotion, from those (like this writer) who object to Ex-Im subsidies because they discriminate against domestic industry and in favor of exports. There is one difference, however, and it is an important one, viz. those who advocate charging the USSR higher interest rates do so on political grounds whereas those who advocate charging exporters lower rates do so on economic grounds. Unless, therefore, an economic basis can be found which justifies charging the USSR higher interest rates, such rates will be (and will be viewed as such by the Russians) as discriminatory and "illiberal" like the Stevenson credit limit has been viewed. Export credits at interest rates which are not competitive suffer a further possible¹ criticism of not enabling American business to compete successfully--the major purpose of such credits.²

¹Keepng in mind the criticisms of this point which have been made earlier.

²Before leaving this point, recall that arguments against extending credits to the USSR which are made on security grounds or on grounds that the resulting imports will strengthen the Soviet economy inordinately, will be considered later when export controls are discussed.

Financing Projects in Siberia

A final question which has been alluded to a number of times and is sufficiently important to require special treatment is whether the United States, either alone or with Japan and perhaps some other Western nations, should finance (or should have financed) huge natural resource extraction projects in Siberia, notably oil and gas from the Tyumen Province of Siberia and gas from Yakutsk. These projects, in particular, might depend on Ex-Im financing if they are to get off the ground because they are on a multibillion dollar scale. In fact, given present limits on US commercial bank lending to communist nations and the size of present Ex-Im resources, financing of these projects would undoubtedly require special legislation by the Congress to enlarge Ex-Im's resources for the purpose. A brief sketch of two of the LNG projects was presented in Chapter IV. In short, the last available estimates suggested that these projects would have required some \$10-12 billion in credits in 1973 prices--it would be much more today, of course. These credits would be required to finance, among other things, long pipelines in Siberia, gas liquification plants, and a fleet of tankers to transport the LNG to the US. Repayment would have amounted to 10-20 billion cubic meters of LNG a year for 25 years in the one project and 20 billion cubic meters a year of LNG over a 25 year period in the other.¹

The major financial problems involved in these projects are (obviously) their enormous size, the very long time period involved in which capital would be tied up, and (partly because of the long time period) the risk. Even under peaceful political conditions, it appears highly unlikely that such large scale Ex-Im financing would be forthcoming.²

Even if Ex-Im financing were available, the question of subsidies would certainly be raised because of the enormous scale of the projects. It seems to me that, in fact, there might be a way around the subsidy question on these giant projects, a way which would be very difficult to implement on thousands of smaller deals. The argument is as follows. Every business deal has a large number of dimensions of which the interest charge, where credits are involved, is one. There is considerable anecdotal evidence from industrialists who have exported to the USSR that Soviet officials have a strong antipathy to paying high interest rates. Further, it is often alleged that in order to conclude deals, explicit interest rates have been lowered but, in exchange, higher prices have been charged for equipment, technology, etc., payback periods have been shortened, and in other ways the loss in interest has been recouped. Now, earlier, it was pointed out that subsidized Ex-Im credits often (allegedly) led to higher profits as exporters used the lower interest rates as an excuse to charge higher prices. In general, it would seem difficult if not impossible for Ex-Im to prevent this kind of thing from happening. On the other hand, in the few extremely large projects of the kind under discussion it might well be possible for Ex-Im to come to an understanding with the American enterprises involved that an officially subsidized interest rate be extended but that in some other dimension of the transaction (say the amount of LNG repayment or its price) this subsidy be recovered and reverted to Ex-Im.

¹Data from Goldman, Detente and Dollars, pp. 118-119.

²Lenz and Theriot (1979, p. 222) estimated that if Ex-Im Bank's resources expanded, as planned, to \$40 billion, and all legislative restraints on loans to the USSR were removed, that support for additional loans to the USSR would not have exceeded \$1 billion by 1983.

Another set of problems with financial implications are the risks. Over a 25-year period, there is certainly a political risk of non-fulfillment or non-payment. This risk is heightened by the fact that, with the exception of the tankers, most of the assets of these projects would not be recoverable. And if a project folded for political or economic reasons, there would be very little use for the tankers. These risks are stressed by many Western observers and are no doubt real. Risks like these are, of course, faced by hundreds of investors all over the world when they put their money and resources in countries where a potentiality for expropriation exists or where a project may fail. The differences between these run of the mill cases and investments in Siberia are twofold: magnitude of project and inability to discount potential risks through the interest rate.

The financial risk just noted has, on the other side of the coin, a diplomatic risk. Any government official who views the USSR as an adversary will view American capital in Siberia as "hostage" capital. The argument is identical with that made earlier with regard to the kind of pressures which the Soviets might be able to exert on our Government by threatening default on a large debt--and need not be repeated.

We have concentrated, as is proper in this chapter, on the financial aspects of American investment in Siberia without considering the real positive gains which might result from such investments. In effect, the major reason for such investments would have been to supplement and diversify US sources of energy. The American energy program is, at the moment, in such a state of flux and disarray that it is impossible to make a considered judgment on the advisability of developing imports of oil and LNG from the USSR. Some security analysts have argued that we should never allow ourselves to be dependent on the USSR for such strategic commodities.¹ However, while it is true that if our relations with the Russians deteriorated seriously, these sources of energy might be lost to us, it is also true it might well be better to import some of our energy from the USSR rather than from the Middle East in case of another Arab-Israeli war:²

One of the major additional questions which would have to be faced in trying to determine whether or not to invest in Siberia would be: given the risks and objections which have been raised, is it more sensible to invest extensively in Siberia or to use the available capital and equipment to exploit our own resources more intensively. In making a judgment on this matter, it is important to not calculate the costs of the Siberian venture on the basis of subsidized Ex-Im interest rates which are below those available to domestic investment and would be below the real cost to this country of investing in the USSR.³

Final Remarks

One must conclude, from all of the information currently available, that the USSR is a good credit risk. While the Russians have a strong appetite for Western

¹US export control policies undoubtedly lead Russian security analysts to argue similarly with regard to imports of strategic products from the United States.

²In 1973, the Russians continued to ship oil to the Western nations and did not join in the OPEC embargo.

³One additional military consideration. It has been argued that the pipeline from Yakutsk to Nakhodka would be of military value to the Russians and for this reason we should not help them build it. I am not in a position to evaluate this argument but I do feel that if the Russians think that the pipeline is really important militarily, they will build it with or without our help.

products and possibly a declining ability to satisfy those desires out of current exports, their external debt is not exceptionally large by today's standards and they have recently demonstrated that they have not forgotten how to tighten their belts when necessary. Because they are good credit risks, and are viewed as such by the market, both private bank and governmental sources of credit are open to them in most countries at relatively low rates of interest.¹

The decision of the Comptroller of the Currency in 1972 to limit Eastern European nations to the amount of credit available to one borrower from a commercial bank, while highly discriminatory against the socialist nations, may well have not been politically motivated. A technical question was involved--how does one define a borrower under the conditions discussed above--and a technical answer to that question was provided. The answer, however, has little to do with the realities of the situation. Further, it not only discriminates against socialist nations, it is differentially discriminatory within that group of nations and particularly discriminatory against the USSR. On this latter point, the USSR, with a GNP and exports that are 50-and 6-fold greater, respectively, than those of Bulgaria, is eligible for the identical amount of credit! In general, the Comptroller's decision must be viewed as quite unrealistic. For, in effect, it equates a whole communist nation's ability to repay loans with the ability of a single Western enterprise or bank. This obviously makes little sense, especially for the nations of Eastern Europe, and if the Comptroller was not consciously attempting to discriminate, then he stands accused of exhibiting little imagination and very poor judgment. As an attempt to bridge the institutional gap, the new regulation of 1978 with its means and purpose tests is to be applauded and, as a result of it, the amount of credit available to CMEA nations by US commercial banks may become more realistic. However, it must be recognized that these two tests, and particularly the means test, make very little sense under communist-bloc conditions. As noted earlier, the ability of a Soviet-bloc enterprise to repay a loan, unlike that of a Western enterprise, is not at all dependent upon the success of the project it undertakes or upon its ability to make a profit. Central governments in communist countries stand behind all their enterprises (the way the US Government stood behind Lockheed) and it doesn't matter what or how the enterprise spends the borrowed money. The only kind of criterion that the Comptroller should be interested in is one which is sensitive to the ability to service external debts by looking at such variables as size of external debt, debt service-export ratios, ability to rectify balance of payments deficits, and the like. An approach to national limits along these lines might be set by the Comptroller of the Currency as follows. First, an estimate as to the maximum amount of credit such nations might expect to get could be estimated by looking at the volume of commercial credit granted to comparable nations. Then, this amount could be modulated by an evaluation of the relative creditworthiness of the nation in question. The resulting figure would be changed from time to time as conditions changed. Under such a procedure, the amount of credit which might be extended to the USSR, for example, would exceed that to Poland both because the USSR is a much larger nation and because its macro-indicators relative to its external debt are less ominous. The details of such a procedure would take considerable working out but, it seems to me, no more so than, for example, the recent

¹For the first half of 1978, for example, the USSR could borrow on the Euromoney market at 3/4 percent higher than the LIBOR (the London interbank credit offer rate), or at the same rate that "prime non-CMEA borrowers" were offered credit (Kolarik, 1979A, p. 202).

procedures promulgated by the US Treasury to evaluate dumping by centrally planned economies (see Chapter VIII). In fact, the procedure just roughly outlined would seem far more satisfactory for its purpose than the Treasury's new dumping regulation.

A few last words on the Siberian energy projects. Then Secretary of Commerce, Peter Peterson proposed in 1972, as the US-Soviet Commercial Agreement was being hammered out (Chapter X), that new facilities be developed by the US Government, including possibly an increase in Ex-Im lending facilities of \$10 billion, for helping finance the huge Siberian energy projects. Whether or not some new financial arrangements would have been worked out had the Commercial Agreement not foundered on the shoals of the Jackson-Vanik and Stevenson Amendments, is not clear. What is clear, however, is the fact noted above that these projects differ from most, if not all, other international investments by virtue of the huge amount of funds required and the great length of time these funds would be tied up. On both counts, the risks for private enterprise are substantially increased, assuming restoration of amicable political relations again between the US & USSR. Can a case be made for US Government financing in one way or another? We have presented arguments both for and against Ex-Im financing (or guaranteeing) of US exports in general. If a balance has to be struck, it would, in my opinion, be against such financing on the basis of criteria of economic efficiency. Such market criteria seem appropriate to most of the transactions that the Ex-Im Bank finances because they are mostly ordinary transactions but which coincidentally happen to cross international borders. As noted, the size and time horizons of the Siberian energy projects distinguish them from most other international transactions. In this sense, they are more like roads and dams and other large domestic infrastructure investments in which government decisions and financing play an important role. They are further distinguished from other investments by two other factors: (1) the extremely non-competitive, unreliable, and erratic role of the market in the energy industry in recent history; and (2) the absolutely central importance of energy in US, and world, economic life at present and in the foreseeable future. With regard to (2), it is not irrelevant to note that President Carter (July, 1979) announced to the nation on TV that the Federal Government will spend more than \$140 billion over the next decade toward meeting our energy requirements.

All of the above considerations add up to a stronger case for straightforward government support of foreign energy ventures like those in Siberia than can be made for traditional Ex-Im Bank financing. This is not necessarily to advocate government (in the event of a renewed detente, of course) support for the Siberian projects, however. For many reasons, such support might not be advisable (above). For one thing, investments in Siberia would have a strong political-strategic dimension; for another, it would have to be demonstrated conclusively that these investments would do more for our energy needs and cost less than the dozens of different measures which might be taken to improve domestic output, productivity, and conservation in energy.

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Chapter VII: Transfer of Technology to the USSR: Facts, Issues, Policies

Transfer of Technology to the USSR: Facts, Issues and Policies

A major policy issue which the United States Government has faced since World War II has been what position to take regarding the export of technology to the Soviet Union (and to other communist nations). Before World War II, the United States along with Germany and England, exported massive amounts of technology to the Soviet Union; and before the 1917 Revolution, the Czarist Government also imported technology from the West. These relatively unrestrictive export policies fell victim to the Cold War and, in the period since World War II, technology exports have been much more carefully supervised by the US Government. The major burden of this supervision was, as noted in Chapter II, to impede the Soviet military build-up.

Restrictive policies similar to those in force during the Cold War were reinstated in March 1980 in response to Soviet invasion of Afghanistan. Until that time, however, restrictions had been undergoing gradual relaxation as our overall policy shifted from cold war to detente. Under the legislation in force between 1969 and 1979, products not embodying military or new and advanced technology presumably were no longer on the proscribed export lists in this country (or abroad). However, what is "new and advanced" or "military" technology is hard to define with precision. Where on the spectrum of advanced and military technologies the export cut-off should be placed is very much a value judgment and was in dispute during detente even as it was regarding a higher level of cut-off two decades ago and again since March 1980. Despite the fact that ordinary products which would yield the potential enemy nations only economic gains were no longer supposed to be on the export control lists during detente, the economic argument still had to be confronted though in more restricted and subtle forms. First, there is a body of opinion to the effect that United States exporters sell advanced technology to the Soviet Bloc at prices which give the buyers most of the profit. Whether or not this was or is true and what should be done about it if it is true has constituted part of the debate. Second, when one considers whether or not to export an advanced or military technology to the USSR, the choice is not always one of depriving or not depriving that nation of the technology. Rather, it may be a choice of allowing the technology to be transferred at some reasonable price through trade as opposed to foregoing the profits from trade but forcing the other nation to seek imports from elsewhere or to develop the technology itself at a higher cost and with a time lag. The time lag can also be viewed as a partially economic variable, the cost of which varies directly with the length of the time lag. There are those who wish to impose such costs on the USSR.

For its part, the Soviet Union has always been interested in obtaining Western technology, although they made relatively little effort to do so through commercial channels in the first 20 years after World War II. A change in policy was signalled by the signing of a contract in 1966 with Fiat to build a \$1-1/2 billion automobile plant at Togliatti. Apparently Chairman of the Council of Ministers, Alexei Kosygin, was the moving force behind the new policy as evidenced in speeches made as early as 1965. In a speech in February 1968 he said:

We must not be content with the fact that from the beginning of

our scientific-technical research until its mastery in current production, many years go by.it would be short-sighted not to use the latest foreign scientific and technical achievements ... We should use all the best new technology and take every opportunity to buy licenses, and we should improve our work on exploiting licenses already bought, so as to accelerate technical progress in our economy...

(Wiles-Nato, pp. 25-26)

It was not until several years later that Brezhnev also went on record as strongly favoring the import of technology; before this, his public statements downgraded East-West trade and emphasized domestic scientific achievements. In 1971, he said:

...Comrades, we face a task of historic importance: we must organically unite the achievements of the scientific-technical revolution with the advantages of the socialist economic system.

...A great reserve of opportunities to raise the effectiveness of the national economy is the perfecting of the system of international relations....We can be sure that the expansion of international trade will have an advantageous effect on the improvement of all our industrial performance...

(NATO-Wiles, pp. 26-27)

Partly as a result of the Fiat agreement, imports of machinery and equipment from the West began to accelerate around 1968. What Fiat was to the 8th Five-Year Plan, the Kama River Truck Plant was to the 9th Plan (1971-75) and imports of machinery continued to increase. At this time, the USSR also widened its interests away from vehicle technology and into many other spheres of industrial activity including technology related to oil and gas extraction, chemicals, fertilizers, computers, tourist facilities, and so forth (NATO-Hardt). Despite this relatively wide range of interest, Soviet imports of machinery, equipment and other technology-related products have not been as great as would have been expected, as we shall see below.

A. The Gains from Trade in Technology: Why Trade in Technology is Considered "Special"

There are several aspects to the export of technology whether embodied in products for final use, in equipment to be used in producing other products, or whether it is just disembodied know-how, which are responsible for the special attention it received from economists as well as government policy makers.

First, and most important, the transfer of technology is intimately bound up with the military capabilities of the US and USSR. Of greatest concern to both countries is to stay as far ahead of the other as possible in the kinds of advanced technologies that are embodied in the neWest weapons and counter-weapons. This subset of technologies is of absolute central concern to policy makers and is the major reason today for the control over exports by the United States Government.

Second, from a standpoint of static gains from trade, "technology" is not a

standardized product in which the market operates to produce a competitive price at which the gains from trade of buyer and seller may be assumed fairly to be, in some sense fairly distributed. Generally speaking, the assumption is usually made that the sellers gain less than the buyers from a transaction in technology. This is because to the seller the R&D costs are "sunk" and anything he can get for the technology is pure profit even though this profit may only amount to a few percent of the sunk R&D costs. Presumably, the seller recovers his costs, not through sale of technology but through exploiting the technology himself. By the same token, the buyer may thereby be enabled to purchase the technology at a fraction of the cost which would be required to undertake the research on his own--if this is even feasible or possible. The static gains to the buyer can also be measured by the increased productivity, increased satisfaction from new products, etc., which may result. These are also assumed to be very large for many transfers of technology.

This point is not, in our opinion, entirely valid. It can be argued--and this was implicit in the discussion in Chapter IV--that these static gains are probably not really different in magnitude from most other gains from trade. Think, for example, of the value to the United Kingdom of importing iron ore, cotton, and food; to Japan of importing petroleum; to Saudi Arabia of exporting petroleum and importing virtually everything it consumes, etc. However, for relatively self-sufficient nations like the USSR and US, the generalization regarding static gains from trade in technology is probably true--the gains from imports of technology are apt to be "relatively" larger than other static gains from trade. But even these two nations are not totally self-sufficient, and in specific areas they would sustain large losses if they had to forego imports--as large as from not having access to technology. The obvious example for the United States is petroleum. This is so well-known that it needs no elaboration here.

The import of grain is a comparable, though less obvious example, of Soviet dependency on trade, though until President Carter's 1980 embargo, not many would have considered prohibiting exports of grain to the USSR on these grounds.¹ As noted in Chapter IV, the USSR has a strong comparative disadvantage in agriculture and in bad crop years may well gain more from importing a dollars worth of grain than from a dollars worth of technology. There are two dimensions to the argument. Since the USSR is a very inefficient and high cost producer of grain, its gains from imports are bound to be high in cost terms. The other dimension comprises the opportunity costs of the imports--i.e., what would be the costs of not being able to import grain in the event of crop failures. There are two related costs. First, the socialist nations now commit themselves to supplying the basic necessities of life, especially food, to their populations and at stable prices. To implement this goal, virtually all of them subsidize the sale of basic food products. In many nations, these subsidies are enormous. Attempts to eliminate subsidies by raising prices has caused riots in Poland twice in the past 8 years, once leading to the fall of the Government. The price of bread hasn't changed officially in the USSR for 25 years, meat and dairy products for 15 years. Soviet food subsidies exceed explicit defense expenditures. The political and social costs of food shortages are clearly large in Eastern Europe. Second, the incidence of large grain shortfalls usually falls partly on Soviet livestock herds.

¹An apparent exception is Prof. Samuel Huntington of Harvard University (1978, p. 75).

As explained in Chapter IV, the import of \$1 worth of grain may be worth as much as \$5 in saved meat and livestock.¹ This is a pretty high rate of profit. In the words of the Vice-Chairman of Control Data, a large American computer firm: "It is clear that the grain that we sold to the Soviet Union has more strategic value to the Soviet Union than a boat load of large computers or a plane load of manufacturing processes." (Schmidt, 1977).

The third consideration regarding technology which concerns policy makers is the fact that change in technology is usually assumed to be the single most important non-human factor affecting the growth of nations. This dynamic facet puts trade in technology in a class by itself in contrast with all other trade which presumably bestows only static gains. This point was also elaborated in Chapter IV. Because of the importance of economic growth among national objectives and as a symbol of systemic vigor, the transfer of technology to the USSR assumes importance to US policy makers. Again, our generalization regarding the uniqueness of dynamic gains from trade in technology, as with static gains, may be largely true only for the US and USSR; in less self-sufficient nations, growth may also depend heavily on imports of other (than technology) unavailable inputs. Consider, for example, the dynamic importance of trade in raw materials of the British, Japanese, and Saudi Arabian examples cited above.

B. Soviet Interest in Western Technology

In order to better understand the policy problem facing the United States, it is important to explain why the USSR has recently become more interested in importing advanced technology from the United States and other Western nations. In the first place, the realm of technology is today so vast that no nation can expect to be totally self-sufficient technologically without finding itself lagging substantially behind other countries in a large number of sectors. Second, the USSR was a relatively late beginner in the industrialization race. While the pace of its industrialization has been creditable by Western standards, it still has some distance to go before it catches the leading Western nations. Part of the observed gap is a technology lag in industry due to the late start.

Third, Soviet interest in importing technology from the West has increased as a result of declining rates of growth since World War II, especially in the industrial sector. Nonmilitary industrial production grew, by Soviet measure, at an annual rate of almost 12 percent in the 1950s but fell to 7-1/2 percent in the early 1970s. Equally dramatic are the figures for the decline in the rate of growth of Soviet national income. The secular nature of the postwar slowdown is evident from official Soviet data.

To a large extent, the decline in growth is due to the fact that growth due to rapid increases in, and better allocations of, factor supplies is no longer possible. These so-called "extensive" sources of growth have dried up. This refers to the fact that to a large extent in the past, growth has resulted from rapid increases in the industrial labor force through the natural increase in population, increases in labor participation ratios (especially of housewives), eliminating unemployment, and moving labor out of the labor-surplus agricultural sector. Putting capital in the hands of these new workers--even obsolete capital--increases output; and high

¹Levine and Bond, 1978, p. 18.

Table VII.1

	1950-55	1955-60	1960-65	1965-70	1970-75	1976-80
National Income produced	11.4	9.1	6.5	7.7	5.7	4.5 (75-79)
National income utilized	---	---	---	7.1	5.1	4.7
Nonmilitary industrial production	11.9		8.6	8.5	7.5	---
Total industrial output	---		---	8.5	7.4	4.5

Soviet rates of investment did just that. This source of rapid growth is largely exhausted. Neither underemployed labor in agriculture nor the housewife cohort nor unemployed workers are now available to industry in large additional amounts. Even more important, demographic trends have reduced the possible increment to the civilian labor force to very tiny amounts. The result has been that the annual increase in industrial labor force has declined from about 4 percent from 1950-65 to 3 percent in the following 5 years and is at present little more than 1 percent. Under these circumstances, growth is dependent not only on increases in capital, but on capital which is superior technologically to that which is in use. That is to say, growth depends more on raising labor productivity than on increasing numbers of workers operating at same levels of productivity. Other factors are also important, of course, such as the organization of planning, education of labor, and the like. What concerns us here, however, is the new technology, some of which may be imported.

Why the technological lag? Much of the Soviet lag appears to be systemic and related to central planning with direct controls. This was touched upon briefly in Chapter III and needs to be repeated and elaborated a little here. As noted in Chapter III, plant managers under the Soviet-type system are motivated by bonuses to achieve the quantity targets which are set for them in the central plan. Unlike the situation in a market economy, they are not strongly motivated to introduce methods which might reduce costs, increase productivity or improve quality. There are several reasons for this. First, the quantity target is the important one and the payoff for making improvements in the other dimensions is smaller or non-existent. Second, by virtue of the central plan, the manager has a guaranteed market. Third, even if the plan did not provide a guaranteed market, overfull employment planning does by creating more demand than supply for most products. That is to say, Soviet managers usually operate in a sellers' market milieu, rarely lack for customers, and need not worry about quality, service, etc. Fourth, not only is there no home competition, there is also no unplanned foreign competition. As we indicated earlier, the state absolutely protects the "markets" of domestic enterprises from imports once the targets of the domestic enterprises have been registered in the plan.

Bonuses are given for innovation, especially in the past decade. However, while these bonuses are not insubstantial, they are not generally larger than output bonuses. Moreover, innovation is risky. First, most innovations involve a transition period which is somewhat disruptive of the old routine and during which targets may not be achieved and bonuses therefore foregone. Second,

and perhaps a longer-run disadvantage, is the disruption of supply lines which may be involved if the innovation substantially changes methods of production. Because of the "tautness" of the plan, supplies are always scarce, and it is very important to managers to establish good connections with suppliers upon whom they can rely. An innovation which involves a change in the mix of supplies and perhaps of suppliers is a significant risk. The net result is that bonuses for innovation may, in many cases, not be large enough to overcome the reluctance of the more risk-averting managers in the USSR.

Innovations which are designed primarily to increase productivity are not very attractive for still another reason. At first glance, it might appear that such an innovation would enhance the ability of a manager to achieve his target, hence his bonus. Unfortunately, any significant productivity enhancing innovations usually lead to a raising of the output target or a lowering of the allocation of inputs for the enterprise thereby leaving the manager in roughly the same position as before regarding his ability to achieve the planned target and bonus.

Another inhibiting factor has been the organization of R&D in the USSR. Most enterprises are not closely related to the R&D organization whose work presumably is directed at the problems faced by their industry. Enterprise problems are not generally referred to the R&D organizations; and R&D organizations do not necessarily or often work on research that is of particular interest to enterprises in their sphere of expertise. Enterprises, are not, of course, particularly interested in introducing new technology for reasons already mentioned so there is not likely to be any pressure from their side to change the situation. The planners have been dissatisfied with the above dysfunctional situation for a long time. It is, in fact, one of the major factors behind the recent super-corporation reform. With large super-corporations, it presumably becomes feasible to attach R&D organizations directly to the producing units (here the enterprises are combined into a super-corporation) whereas before this could not be the case because similar enterprises were not organizationally related to each other except very loosely as members of the same industry, not a very close tie.

Three other systemic factors inhibit the development of technology. Unlike under capitalism, where successful inventions can bring large and continuing rewards to the inventors, invention is poorly rewarded in the Soviet Union. This is not to say there are no financial rewards, but certainly they are not so large as to attract talented individuals. Successful inventors do not have rights to a royalty but receive a single payment. This payment is geared to the profitability generated by the invention but, in any case, is limited to the equivalent of roughly \$22,000 (Burks, "Technology and Political Change in Eastern Europe," p. 280). Another impediment to invention and to the development and diffusion of technology is a variant of the general economic problem of an absence of rational prices. There is a great deal of uncertainty under any economic system in assessing the value of new products over the long run. These uncertainties are exaggerated under central planning because of the absence of effective and reliable methods of calculating economic efficiency. Finally, the introduction of technology may be impeded by Soviet depreciation rate policy. Soviet practice is to set rates of depreciation for various kinds of equipment at much lower levels than would be the case in a capitalist enterprise. In other words, the low rate of depreciation reflects a planner's expectation that machinery should be longer-lived than under a capitalist model. From the operational standpoint of a plant manager, depreciation funds to be used to replace a piece of equipment accumulate

more slowly. Of course, if, for some reason a decision is made to replace the equipment before its value is completely depreciated on the books, alternative methods of financing can often be obtained.

While the statements in the several preceding paragraphs are generally true in Soviet industry, they are not without exception, of course. For example, one immediately wonders how, under the above circumstances, the USSR could have had so many successes in the military and aerospace industries, to mention two outstanding exceptions. The answer is that these two industries operate under an entirely different set of institutional arrangements. These are the Soviet Union's highest priority industries. And, in these industries, qualitative results are as, if not more, important than quantitative. The Soviet authorities are not willing to tolerate faulty products, delays in development, and so forth. Management cannot expect to be rewarded for simply fulfilling quantitative goals. Products must meet the highest quality and most advanced technological standards. The state not only demands performance from management, however; it also makes it easier for plant managers to meet these demands. Enterprises in these industries do not have to wait their turn for supplies when supplies are scarce--they have first priority. They need not worry about establishing new supply lines when products and technology are changed--they get what they need for the asking. Finally, a very close relationship exists between R&D institutions and enterprises in these industries. R&D organizations work directly on the problems faced by the enterprises and posed to them by higher authorities. Further, there is often more than one R&D unit working at the same time (competitively) on a single problem. In effect, these industries operate in what amounts to a buyer's market rather than in the sellers' market which characterizes the rest of Soviet industry. One might ask: why can't they do the same thing in the rest of the economy. The answer is: you can't transform the whole economy in a way which makes every sector a priority sector without destroying the meaning of "priority" or really transforming the economy to something different from what it is. The latter implies radical reform, and this the USSR has shown no inclination to do.

There are other areas in which the USSR excels. Three such industries are steel, large turbines, and machine tools. It is not as clear here why their performances are so good since currently these are not priority industries. A possible explanation comes to mind. From the 'thirties through the 'fifties when the USSR and the nations of Eastern Europe (in the fifties) were undergoing mass industrialization, these industries experienced mass expansion and must have been fairly high priority and endowed with considerable resources. In all probability, a relatively large amount of R&D effort must have been allocated in these areas (Berliner, "International Aspects...", p. 348). When we say "relatively" we mean not only in the Soviet context but relative to the effort allocated to these industries in the West. This is because these industries were leading industries in the West decades earlier than in the USSR and had reached a stable or low growth stage at the time that the USSR and Eastern Europe were first beginning to expand.

To sum up: the USSR lags behind the advanced Western nations in the development and introduction of technology. There are exceptions--but these only prove the rule. A share of the blame for this situation must be attributed to the Soviet Union's economic system.

C. The Magnitude of Soviet Imports of Technology¹

We have established a motive for Soviet interest in importing Western technology. How large are these imports? Conventional wisdom has it that a major Soviet interest in détente's to enhance trade with the West and the interest in trade is focussed primarily on importing advanced technology. Let us test these views by looking at the data on Soviet imports.

As a starter, some might consider that imports of technology include all manufactured products. In the standard international trade classification system, this would cover: SITC 5 — Chemicals; SITC 6 - manufactures; SITC 7 — machinery; and SITC 8 - miscellaneous manufactured goods. Most of the products listed under these 4 categories are not carriers of technology, however, and most experts assume that SITC 7 (machinery) is the crucial category. In actual fact, however, more careful studies have shown that a large proportion of the machinery exported, while embodying technology in some sense, does not embody advanced or "high" technology and is therefore not subjected to export control. On the other hand, there are a few subcategories under SITC 8 (e.g. optical equipment, measuring and control instruments, etc.) which are properly the subject of export control (Young, *passim*).

To get a better perspective on the dimensions of the advanced technology items, we present 1976 figures for all categories. In 1976, total Soviet imports from all sources were \$38.5 billion of which approximately \$2.3 billion were from the US and \$9.3 billion were from the other industrialized West (IW). These are broken down in Table 2 (attached). SITCs 5-8 comprise about 90% of Soviet imports from IW but only 34% of imports from the US. This is partly because Soviet grain imports from the US were so large in 1976. More relevant, the corresponding percentages for SITC-7 are 39.1% and 26.2%. Still more relevant is the amount of actual IW exports to the USSR in those subcategories of SITCs 7-8 which are deemed "high technology." These are estimated to have amounted, in 1976, to only \$1627 million of which 12.7% or \$207 million were exported by the US. These US+IW high technology exports amounted to 14% of total US + IW exports; US high technology exports amounted to 9% of total US exports and less than 2 percent of total US + IW exports to the USSR. It is worth noting that the percent of US + IW exports of high technology products to total exports to the USSR and other communist countries is roughly the same as to the rest of the world. The US percentages are, of course, smaller as a result of our more restrictive policies. In fact, while the US in 1976 supplied almost 13 percent of US + IW technology exports to the USSR, the US share of high technology exports to the rest of the world was 30 percent (Young, p. 14).²

¹This section attempts to measure the amount of "embodied technology" --technology carried by machinery and equipment. Know-how which is transferred through licenses, articles in journals, etc. is not included. Such transfers are believed to be relatively unimportant in the case of the USSR (Kraivalis, et al., p. 37).

²Corresponding figures for 1979 were 6.5% and 27.7 percent (Martens, Jan. 1981, p. V.)

Table VII.2
Soviet Imports from Industrial West and US 1976
(\$ millions)

<u>SITC</u>	<u>Description</u>	From US		From Other I.W.	
		<u>\$</u>	<u>(%)</u>	<u>\$</u>	<u>(%)</u>
1	Food & Live Animals	1,359	58.9	718	7.7
2	Beverages & Tobacco	1	0.1		0.1
3	Crude Materials Except Fuels	141	6.1	119	1.3
4	Mineral Fuels & Related Materials	9	0.4	24	0.3
5	Animal & Vegetable Oils & Fats	negl.	0	3	0
6	Chemicals	37	1.6	850	9.1
7	Manufactures	116	5	3,492	37.4
8	Machinery	605	26.2	3,654	39.1
9	Misc. Manufactured Goods	36	1.5	379	4.1
	Commodities & Transactions. NEC	1	0.1	99	1.1
TOTAL		2,305	99.9	9,347	100.2

Source: Selected Trade....1977, p. 11. The data were compiled from UN sources.

We have just cited Young to the effect that US high technology exports amounted in 1976 to 9% of US exports to the USSR; the figure for all the communist countries is roughly similar: 9.3%. At this point, Young introduces a further caveat, viz., that all of the items exported in the potentially high technology subcategories of SITCs 7-8 are, in fact, not high technology. He bases this opinion on the fact that, of total US exports to the communist countries in the past few years, only between 1 and 3 percent have been exported under the so-called validated licenses which are required of sensitive items (Young, p. 18). This would certainly represent the truest estimate of the proportion of US high technology exports if one assumes that those in charge of licensing exports are doing their job.¹

One might wonder if 1976 data on which we relied are representative. In fact, Young shows that the percentage of commodity exports to communist countries in high technology categories has changed very little since 1970.²

The preceding paragraphs have delineated the relative importance of high technology exports to communist countries in the perspective of total Western trade. It is interesting to view its importance in terms of the recipient nation, the USSR. Philip Hanson (in Thomas and Kruse-Vaucienne, p. 380) has related Soviet imports of machinery and transport equipment to Soviet domestic machinery investment (in the following year) as one such measure. Over the whole period, 1955-74 he finds the percentage varying from 0.8-1.6% to 1.9-

¹That they are doing the job is attested to by a very high official in the Department of Defense (Cf. Mountain, p. 32).

² Little change occurs between 1976 and 1979 (Martens, 1981).

3.6%,¹ with virtually no time trend. On the basis of incomplete data, the estimate for 1975 is 2.4-4.8%. It is important to note that if Young's judgment of which subcategories in SITCs 7-8 are properly high technology is correct, then Hanson's figures are approximately twice as high as they should be. Further, if Young's "validated license" approach is a still more accurate indicator, then the figures need to be reduced still further.² The upshot of these estimates is that the Russians get very few high technology products from this country or from the industrialized West, and that it amounts to a very small part of their investment in machinery. However, since most of their own investment in machinery is not high technology, the high technology imports may amount to a fairly high percentage of domestic high technology output.

The present drive to import technology is much less intense than that of the 'thirties as one might gather from having read Chapter II. Thus, imports of machinery and equipment during the First Five Year Plan, 1928-1932, amounted to close to 15 percent of gross investment in the whole economy. The present import of machinery as just noted above (Hanson, p. 380), constitutes less than 5 percent of investment in the machinery industry alone. Of course, the technology embodied in most of these prewar imports was not what we would call today high technology--but most of it probably constituted bridging a much larger technological "gap" than does import of high technology today.

In light of the above information, one must question the opinions of those who feel that the major focus of Soviet trade with the West is to obtain advanced technology. True, some Soviet leaders have made statements which suggest that this is the case--although most of these statements concern importing just plain old technology rather than advanced technology. The latter interpretation derives mainly from the West. It is also true, of course, that were there more advanced technology available to the Russians, they might import more. But probably not that much more. Estimates have been made, for example, of the potential Soviet demand for Western computers in the event that all export controls were removed. These estimates, for what they are worth, foresee, at most, a few hundred million dollars worth of purchases--a large amount, but not a change in orders of magnitude. The only projects which currently seem to have had the potentiality for changing orders of magnitude were the giant Siberian resource extraction and transportation schemes (cf. Chapter IV).

Given the large magnitude of the Soviet hard currency debt, one must ask: if the Russians are so strongly motivated to purchase advanced technology, how is it that more than 80 percent of their imports (1976) were not related to advanced technology but were simply run of the mill products that constitute the bulk of the world's traded commodities? Or how is it that "...A third of Russia's sugar-beet harvest is processed by factories whose equipment has been acquired from the West; a third of all Soviet beer is produced by breweries

¹The spreads are based on alternative purchasing power parity assumptions

²Kiser (p. 90) argues that many imports of products embodying fairly advanced technology are purchased because of various kinds of systemic blockages (red tape, production bottlenecks, factory resistance to change, etc.) rather than because of technical incapability. He cites, as an example, the fact that the USSR was importing welding equipment from the United States at the same time that it was selling more advanced welding equipment to a consortium of American engineering firms.

built by foreign contractors; more than a third of all cement comes from factories using foreign plants..."?¹ Or how could they afford to pay West Germany \$1 billion in cash to build a steel mill at Kursk and the Japanese \$500 million to open and operate a coal mine in Yakutia²--when these are industries (esp. steel) in which they are at the technological frontier? Many other examples could be cited. These facts along with the fact that machinery and equipment as a percentage of total imports from the West has not increased since 1970 bear witness to Soviet motivations for East-West trade--they are interested in trade, in general, not only in advanced technology. In the words of the Central Committee's Report to the 25th Party Congress:

It's characteristic of our age that every country, regardless of its wealth or level of economic development, makes increasing use of the international division of labor. We, like other governments, see the international economy as a source of additional resources which, when harnessed, will allow us to compress the time it takes for us to reach our economic objectives, will make production more effective and will accelerate the pace of scientific-technical progress.³

And in the words of a US Department of Commerce group of analysts:

"In short, by world trading standards, high technology products do not dominate in exports to communist countries, are not large in volume, and are not experiencing any marked shift in relative importance." (Kravalis, et al., 1979, p. 38 - italicized in original).

These same analysts point out that :

"US exports of high technology products accounted for 9.3 percent of total US exports to communist countries, in comparison with a 17.2 percent share in US exports to the world; and

Analysis of exports to communist countries processed under validated license reveals that very small shares (1 to 3 percent) of US exports were judged to have even potential for application to communist country military industrial production" (op. cit., p. 43).

D. What Risks in Exporting Military-Related Technology?

In a previous section we traced the (mainly) systemic reasons why the Soviet Union is interested in importing technology from the West. We have also noted that systemic difficulties have been to a certain extent overcome in the military and aerospace industries. We now address ourselves to two questions: First, is it likely that exporting advanced technology to the Russians will be the factor which enables them to overtake or surpass us militarily (Section D)? Second, are the Russian economic gains from imported technology excessive in some sense--perhaps even to the extent that it enables the USSR to devote more resources to defense (Section E)?

¹The Economist, April 17, 1976, p. 51 (London).

²Vernon and Goldman, p. 48.

³Cited by A. Anikin and E. Kirichenko, "Current Questions of Soviet American Economic Relations," Soviet and East European Foreign Trade, Fall 1977, p. 77 (tr. from Russian).

By military technology, we refer here not exclusively to weapons technologies per se but also to technologies which have military spinoffs like those related to advanced computers. The case of large computers is, in fact, a good place to start since it appears to be the single most-cited and controversial nonmilitary US export to the Eastern Bloc. Because of its controversial character, several studies have centered on the advisability of exports of advanced computers to communist nations. The US Government, through its Export Control Board, has been very slow to relax controls on such exports.

The most comprehensive study of the potential military impact of eliminating export controls on computer exports was one completed in 1974 by Robert Klitgaard then of RAND Corporation. Klitgaard held conferences in which a number of computer experts and specialists in various military areas were asked to discuss the extent to which Soviet military capabilities would be enhanced by importing the most advanced large US computers. Some specific conclusions were as follows:

Command and Control: Lack of the largest computers was not viewed as a constraint on the Russians. This is partly because of the nature of their weapons and strategies. Large computers might make a difference in the "automated battlefields of the future" but other factors would appear to be more important.

Logistics: US has used large computers to reduce logistical costs. The USSR solves its logistical problems by using other forms of capital and more labor. Use of large computers might reduce Soviet costs but would not change their capabilities.

Research and Development: US military R&D depends heavily on large "number crunching" computers, the most sophisticated which we have. The Soviet Union has successfully solved most of the same problems (space ventures, moon landings, nuclear weapons) without such computers. In the few areas where they are behind (atmospheric and oceanic modeling), data shortages rather than computational constraints appear to be decisive. Generally speaking, "They may substitute time and thinking for computer power" (p. 43).

Guidance: Soviet BESM-6 computer is adequate for most Soviet tasks. Absence of larger computers is made up for by better engine technology and willingness to substitute time and manpower. The only possible computer constraint on capability is in the area of "small, special-design, on-board computers."

Intelligence: Capabilities are not restricted but costs in terms of manpower and time are increased by lack of larger computers.

Avionics: As with guidance, large computers are not a constraint.

ABM Systems: This is the one area in which experts disagreed, some feeling that the Soviet ABM systems could be improved with large US computers, others arguing that their own computers were adequate to the problem.

Klitgaard sums up as follows: "Perhaps surprisingly, the Soviet military seems able to substitute time, labor, other military resources, and doctrine for large computers, producing achievements comparable to those of the West's more computer-intensive defense policy" (p. 46). He notes, significantly, that "The US military seldom uses large computers more sophisticated than the Soviet BESM-6; when it does, there is little evidence of a substantial difference in capabilities from those the Soviets obtain or would desire, given their defense policies" (pp. 46-47). Finally, he notes the possible exceptions mentioned above and also repeats the contention that big computers might save the USSR resources.

He then raises a further question: if the USSR has rough equality with the US without big computers, would they achieve superiority with them? This

appears unlikely, according to the experts interviewed. The main reasons are that Soviet investment and organization in the area of defense are geared to the less computer-intensive setup which currently exists, and it would be extremely expensive and time-consuming to make the required changes. Furthermore, over the medium run, constraints on computer software and trained personnel would be severe. In fact, these constraints are so severe, Klitgaard hypothesizes, that if the USSR used larger imported computers in their civilian sector, software and skilled personnel might have to be diverted from military uses to the military benefit of the West. This point is also made by several other Western experts (Hardt, "The Role...").

We have argued above that the Soviet lag in computers does not weaken seriously its military potential but primarily raises the cost of achieving desired levels of performance in the various dimensions of military activity. It is worth asking here: what are the reasons behind the computer gap? Many of the reasons were given above in the general discussion of the causes of the Soviet technological lag. We refer to the facts that: plant managers are more interested in quantity than quality; there is an aversion to changing technology because it temporarily disrupts production and supply lines; there is a lack of rapport between R&D and producing enterprises; and so forth. These factors operate with special intensity in the computer industry because it is an industry which at present is experiencing an almost (if not absolutely) unprecedented rate of technological progress. As one expert has put it:

Computer technology is a new and very dynamic field, in which success comes as a reward for a mixture of technical competence in design, efficiency and quality control in manufacturing, aggressive financial planning, and a high degree of entrepreneurship in marketing and product innovation. The technology is developing so rapidly that only the most adaptive organizations are able to thrive or, indeed, to survive. (Judy-Wasowski, p. 68)

This is not an industry which is likely to succeed in the USSR:

The computer industry in the Soviet Union is in startling contrast to the competitive and responsive American industry. New ideas must run a gauntlet within the bureaucratic structure. A 'customer is usually wrong' attitude characterizes the Ministry of Radio Industry and other suppliers. Computers are but one of many products and responsibilities of the Ministry. Few administrators in the Ministry have any direct experience or competence in the field of computer technology, and they lack a dedication to it. But young men with bright ideas, aggressiveness, and enthusiasm have no alternative but to work within the jurisdictional and administrative structure. The result is that innovation and entrepreneurship are frustrated.

(Judy-Wasowski, p. 70)

One might well question why, if computers are so important for industrial and military use, doesn't the industry show the exceptional growth and performance that the military and aerospace industries in the USSR show?

According to two authorities (Judy, p. 70; Grayson, p. 5), the reason is that the computer industry has never been accorded exceptionally high priority despite some rhetoric to the contrary. Evidence to support this opinion is provided by: the relatively slow growth of computer output; the fact that software development has been pursued on a very casual and disorganized basis (Judy, p. 20); the failure of the Soviet Union to set up a Ministry for the industry despite the fact that US experience has demonstrated that giant enterprises such as IBM and Honeywell are needed to support the technology (Grayson, p. 10); "a lack of input of high quality men and materials..." (Judy, 10). Finally, as Klitgaard (1978, 105) points out, evidence that Soviet problems in computers are systemic is provided by the fact that they are further ahead in hardware, which is subject to Western export controls, than in software, which is relatively freely available.

One further factor may help explain both the low priority accorded the industry and the slowness of progress. Both Judy and Grayson are agreed that development of the industry has been severely handicapped by the fact that there is not, as in advanced Western nations, a large demand for computers for business use. This may be due to several factors. First, of course, labor is cheaper in the USSR, and there is less incentive to introduce labor-saving devices. Second, Soviet enterprises are not organized to make effective use of computers, and there is little incentive for them to adapt themselves to computers. This is true for many reasons mentioned above relating to "success indicators." Another inhibiting institutional factor is the fact that, in the USSR, the computer manufacturers take no responsibility for computer use beyond production and delivery. The enterprise user has to assemble and maintain all the peripheral equipment (magnetic tapes, line printers, etc.) as well as to develop software programs. According to Judy (p. 68), many large users (e.g. the Gorky automobile plant) have spent as much as 7 years trying to develop "systems" to use with their computers. The lack of widespread use of computers by business enterprises is a handicap to the development of the industry because, in the West, business has provided the major source of demand for computers. Meeting this demand has led to competition in industry and has led to major improvements and cost-savings. The computer industry, like a number of other industries, has had a demonstrated "learning curve." This refers to the fact that costs have been shown to decline rapidly and steadily with increases in output. Without the stimulus of mass demand from business enterprises and the competition among producers of computers for a share of this demand, the Soviet computer industry was bound to suffer. It is also of interest to note that the conclusion of Western experts is that the Soviet computer lag cannot be attributed in any significant way to lack of scientific competence on the part of Soviet specialists or on lack of scientific knowledge. Western technical publications are widely read in the USSR, and Soviet scientists have pioneered developments in many areas connected with computer technology. Unfortunately for them, their work is inevitably handicapped by the absence of an advanced industry (described above) within which they must work. One final point: The computer industry is believed to suffer from the general backwardness and poor quality of output of industry as a whole. This leads to poor quality of supplies from other industries which significantly reduce the usefulness of computers in operation. Operation has been hampered by, among other things: low quality of paper, air conditioners, magnetic storage media, data transmission facilities, and punch cards. Poor quality air conditioning equipment, for example, causes more shutdowns than equipment failures.

E. The Success of Soviet Exploitation of Western Technology

We have seen that there are many systemic barriers in the USSR to rapid development of technology. This is one explanation of the current Soviet interest in importing technology from the West. One might infer from this that the gains from imported technology would be comparable to the gains experienced by any Western importer of new technology, e.g., comparable to the gains experienced by Japan, a nation renowned for the scale on which and success with which it has used the innovations of other nations. Japan in fact is the prototypical example of the nation, in Ray Vernon's product cycle theory, which quickly absorbs the new technology of the innovating nations (e.g. the United States) and then, with its lower labor cost structure, is soon able to outcompete the innovator in world markets. In fact, it is US experience with nations like Japan which gives rise to concern over large-scale export of technology to the USSR. In the case of the USSR, of course, the concern is not just commercial, and not largely confined to private exporting of technology; rather the concern is strategic and military and is expressed primarily at the highest levels of Government.

The main set of reasons why imported technology is not likely to have as much of a beneficial impact on the Soviet economy as on the economies of Western nations like Japan have already been set forth, *viz.* many of the same factors which impede the endogenous development of new ways of producing goods. We refer here primarily to the resistance to new technology by plant managers who do not wish to rock the boat and to the gamut of systemic factors which have been responsible for this resistance. These need not be repeated here.

It is important to stress that it is not easy to transfer technology, in particular advanced technology, and in the absence of proper incentives and an all-out effort, the benefits are likely to be small. In analyzing the difficulties it is worth distinguishing between the kinds of technology which are being imported (R. Campbell, 1974). For example, at a low level, the USSR might want to import large diameter pipe for the transmission of gas. This is a relatively simple way of raising productivity--the pipes are imported, laid as pipelines, and gas transmitted through them. There may be problems in integrating the new and larger pipes with the old equipment but these are not the most difficult problems in the world. In cases like this, productivity is raised fairly directly. However, the productivity gains to the economy are small and limited largely to the area of proximate application of the new products. The Bucy Report (below) would favor this type of technology export--but not those which follow.

At the next higher level, a nation might want to import not just the technologically advanced product but the plant to produce that product (the plant to produce the pipelines). This is a much more complicated adaptation. Workers with different skills have to be trained. Management skills may have to be different, depending on the kind of plant which has been imported. Interrelationships with suppliers of inputs, which are not a problem in the product-import case, became a serious one where the import is one of production technology. Not only is the inertia of existing supply lines a barrier, in addition there may be problems related to the quality of the inputs. Inputs which were adequate under old production methods may no longer be proper quality. It is well-known that the Soviets operate imported plants at much below Western efficiency levels. For example, in an East-West licensing agreement in the mid-1960's to produce electronic components, the licensee turned out inferior products because the nitrogen supplied locally, while perfectly adequate for traditional uses, was of too low purity for the purpose at hand. Further, the

need for higher purity nitrogen for electronic components was too small to justify the construction of an appropriate nitrogen plant (Cf. OECD, 1968, pp. 164-169).

Another measure of this problem is the much greater labor force required by the Soviet-operated plant. To repeat an example from Chapter IV, there is the case of 6 chemical plants imported into the USSR a number of years ago (Feshbach and Rapawy, p. 488). These plants were designed originally to employ a total of 91 auxiliary workers. In the Soviet plan, the number was expanded to 430. Finally, in operation, the plants employed an actual total of 732 auxiliary workers:

This story is typical, not atypical. A similar one is told by Donald Kendall, President of Pepsicola, who sold a turnkey bottling plant to the Russians a few years back. The Russians turned a highly-automated plant literally requiring only a half-dozen button-pushing employees into one which was "swarming with workers." A fourth example: In the early 1950's, the USSR began to introduce milking machines designed to replace "milkmaids." Today this process is more than 95 percent completed--yet the number of milkmaids has declined only from 1 per 15 to 1 per 18 cows.

Finally, there is still a higher level of technology import, namely the importing of technology which affects not just one product but a whole industry or even many industries. As examples, Campbell cites computers which could affect the operation of many branches of industry and integrated circuitry which would revolutionize the electronics industry. The problems of making effective use of such technological imports are enormous. As Campbell puts it:

If these general kinds of technology are to have much impact, they must be accepted and adapted in a great variety of using sectors, the associated products and processes must be redesigned to use the new inputs and principles. In short, technological transfer at this level, to be effective, requires precisely what is lacking in Soviet internal innovation efforts and which turned them to the borrowing road in the first place.

He further notes:

It has sometimes been said, only partly in jest, that when one thinks of the problems the Russians have in getting computers maintained, in fitting them into their procedures and systems, and providing the software and modeling support, the large scale importation of Western computers would do more to set back the progress of Soviet planning and management than anything else one could imagine.

Campbell is not alone in this opinion. In fact, as noted above, John Hardt has hypothesized that the domestic investment requirements (both skilled labor and capital) of importing Western technology for civilian projects may be so great that scarce resources could be drawn away from defense industries (Hardt, "The Role..."; also Klitgaard).

We have attempted to establish the difficulty in general of importing technology and also the particular disadvantages likely to be experienced by the Russians. There is another important point to be made in this connection. Many in the West fear that if the USSR is allowed to import advanced technology freely, it will eventually catch up with the United States. This

assumption must be challenged. Concerns of this sort led President Johnson to establish a Special Committee on US Trade Relations with East European Countries and the Soviet Union. This so-called Miller Committee made its report in 1965 (published by the Dept. of State, pp. 14-15) and concluded that "In today's world no country can continue to rely heavily on the ... importation technology to improve its relative industrial position. To do so may appear to be cheap in the short run, but could turn out to be a sure way of perpetuating second-class industrial status." This view is shared by most Western specialists. Berliner points out ("Some International...", pp. 342-343) that in rapidly developing industries, the scientific journals tend to be behind the actual state of development and exports of technology always represent a stage which has been tried and used for sometime rather than that which is currently on the drawing board or even just getting into production. This writer had occasion to study at first hand a multi-million dollar contract between a large American producer of semi-conductors and an Eastern European state enterprise to build a turnkey plant and transfer the technology. This contract was nullified by the United States Export Control Board. Yet, the technique of production which was being transferred and the type of semi-conductor it would have produced were, by the time the contract negotiations had been concluded, considered obsolete in the American market and had already been superseded in the sales of the American company by a newer model. Furthermore, a still newer and much more advanced model was scheduled for production within a few years--by the time the East European factory would have been built and in production. It had been estimated by the American company that it would take at least two years, if not more, to train East European engineers and workers to handle their plant themselves. It appears highly unlikely that these engineers, producing what would have been an advanced product in Eastern Europe, would either have wanted or have been able to quickly develop, without outside assistance, the more advanced technology already in use in the US. As an addendum, it should be noted that French and Japanese companies were in the wings prepared to sell the same technology if the American deal fell through.

An extremely important factor affecting the impact of imported technology on the importing nation is the extent to which the importer diffuses the new technology. If a nation imports equipment which enables it to double the output of the factory into which the equipment has been installed, obviously a gain has been made, all other things equal. If, however, the nation never itself makes and installs similar equipment in its other factories, or does so only after many years have elapsed, then it will gain less from the technological exchange than nations in which the new technology is rapidly adopted by the whole industry. We have already noted the factors which have slowed diffusion of technology in the USSR--they are much the same as those which inhibit innovation and introduction of new technology in the first place.

There is some evidence to support this generalization. Amman and Davies in an unpublished paper have pulled together the results of several studies. Some of these results follow.

(1) How long after its introduction did it take for different countries to diffuse steel-making by the new oxygen process? It took the USSR 16 years before oxygen steel-making amounted to 20% of the total whereas other major nation's reached the 20% mark in from 2 to 12 years. Once introduced, new synthetic fibres gradually began to replace the older artificial fibres in the US; production of older artificial fibres in the USSR continued to increase along with the new synthetic fibres.

(2) In the Soviet control instruments industry, a dozen systems were in production at one time, the oldest being very antiquated relative to the most modern and particularly relative to those used in the West. In 1959, the USSR had a higher percentage of its electrical transmission lines 300 KV or higher than was true of the US, UK, or West Germany. By 1970, although its percentage of such lines had risen, it lagged behind the US, UK and W. Germany.

Finally, it should be noted that Amman and Davies find exceptions to the general slowness of Soviet diffusion. A major case in point is in the production of numerically-controlled machine tools. In this area, a lag in the rate of growth in the 1960's was very quickly overcome in the 1970's. The change in pace followed a government decision in April 1968 to give high priority to the industry, including expansion of imports (Amman, Cooper and Davies, pp. 167-168).

Diffusion of technological information is handicapped not only by factors mentioned earlier but also by lack of advanced technological techniques and equipment in design and reproduction. For example, in 1975 it was reported that "A survey of three hundred institutes, design bureaus and enterprises in different branches found that 85 percent of them copied designs and technical drawings by hand, using tracing paper and India ink. Some employed as many as 120 copyists solely for this purpose..." (Radio Liberty Research, 1975, p. 6). Apparently, there is in the USSR a very great shortage of quality design, photocopy, microfilm, and duplicating equipment and machines (ibid.)¹

F. Pricing of Exports of Civilian Technology

The pre-1980 US Government position, as expressed in legislation, was to encourage all trade with the communist nations except export of products and processes embodying military-related technology. Nevertheless there were powerful voices which argue that the United States should not sell its civilian technology too cheaply to the USSR--so cheaply that this nation incurs a social loss and the USSR a large social gain. Another voice--that of an eminent British scholar--argues that we should not sell any technology to the USSR; our goal should be to keep them as far behind us, technologically, as is possible. What private enterprise, he asks, would sell technology enabling a competitor to close the gap! (Wiles-Nato). The latter position, it seems, is extreme and not seriously considered by most American scholars or policy-makers. Carried to its extreme, it implies that we should cease having any dealings with the USSR from which it profits--hence no trade at then all.² This position conflicted with the then American interest in pursuing detente; it is, therefore, discussed by implication, in Chapter X below. The question of relative gains from trade in technology is much less extreme and we will consider its merits directly below.

It was noted in the early pages of this chapter that one of the issues which differentiates technology transfer from other products is the question of pricing. Some economists argue, in effect, that individual purchases and sales of technology are often sufficiently idiosyncratic or unique that ordinary market processes, which often insure an equitable sharing of the gains from trade in more standardized products, simply do not operate here. The contention is that

¹Some of this shortage may be deliberate and designed to prevent dissidents from communicating with each other on a large scale.

²Wiles does not carry it to this extreme but is willing to sell the USSR relatively obsolete equipment.

in sale of technology to the USSR, the absence of the usual market constraints plus other factors to be noted below allows that nation to reap unacceptably large gains from the transaction. Further, it is argued that the gains to private enterprises from selling technology to the USSR may be less than the social costs of the transfer to the US economy. It is proposed, therefore, that the US Government intervene to insure that sales of technology to the USSR are either appropriately priced or prevented.¹ It is important to note that the issue here concerns only civilian technology; the wisdom of transferring military technology presumably is judged on strategic rather than economic grounds.

The first prong of the argument concerns the low price at which technology is sold. One major reason why technology may be priced "too low" was stated at the beginning of the chapter--since R&D costs are "sunk" costs, a sale is profitable if the price obtained exceeds the additional costs required to make the sale. Since these so-called marginal costs are apt to be just a fraction of the full cost of developing the technology in the first place, the technology could be transferred at a price which confers an enormous benefit on the buyer. In the case of the USSR, it is alleged that at least three factors could operate to bias the price in the downward direction, hence the gain to the USSR in the upward direction. First, Western enterprises are apt to be willing to sell technology to the USSR at lower prices than to certain Western buyers because they do not fear future competition from the former as they do from the latter. Second, the USSR with its predilection for stability tends to favor enterprises with which it has had previous ties. Hence, it pays the selling enterprise to keep prices low as a means of getting a foothold in the Soviet market. Third, the USSR with its foreign trade monopoly is in position to extract monopoly profits in trade with Western enterprises whether the trade is in technology or ordinary products. (This argument was evaluated separately in Chapter IV).

The other, but related, prong of the Vernon-Goldman argument regarding the adequacy of private profits is that, while the private seller of technology to the USSR may make a profit, the nation as a whole may lose. That is to say, the private profits from the transaction may be less than the social cost. Several factors are responsible over and above those just adduced, which lead to charging a relatively low price. First, much private R&D in the US is subsidized either directly or indirectly by the Federal Government. Second, when the V-G paper was written, subsidized Ex-Im bank credits and credit guarantees were financing sales of technology to the USSR. Third, it is alleged that sales of technology at low prices to the USSR are partly made possible by conducting similar sales to domestic US enterprises at higher prices. Finally, it is argued that one firm by selling technology to the Russians, in effect, prevents itself as well as other firms from being able to sell the products of that technology to the Russian market.²

¹The best statement of this position is in an unpublished paper prepared for the Department of Commerce: Raymond Vernon and Marshall Goldman, "US Policies in the Sale of Technology to the USSR," Sept. 15, 1974. Some of the arguments are also contained in a paper by Goldman (Goldman-Nato). The best critique of this position is an unpublished memorandum in the Dept. of Commerce by Thomas Wolf dated October 10, 1974. This section relies heavily on these two unpublished documents.

²Former Secretary of Commerce, Rogers Morton, denies that this is the case. He argues that given the scarcity of hard currency, the socialist nations would often be willing to buy the technology but not the products of that technology (Morton, p. 45).

The authors are careful to stress that while the above arguments may be valid reasons for government intervention to prohibit export or set a lower limit on price under circumstances in which the US has a monopoly on the technology involved, all bets are off if there is no monopoly and (1) such intervention would simply divert Soviet purchases to other Western markets or (2) if it was fairly clear that the Russians could develop the technology themselves at a reasonable cost.

How do V&G propose to deal with the problems they raise? Their major proposal is set up a Federal Committee which would screen all contracts for export of products embodying advanced technology to communist nations. This Committee would determine whether or not the transaction provided the nation with social gains or losses and whether the "distributional effects" within the economy were desirable or not. In cases judged to involve social losses, the Committee would be empowered to establish minimum prices (called "upset prices") below which the sale would be discouraged by withdrawing Ex-Im assistance, etc. In the last resort, the sale might be prohibited, although this power normally would be reserved only for sales which transmitted military-related technology. The controls, V-G stress, should be motivated by the necessity "...to redress the negotiating balance between the USSR government agencies and the US firms..." (p. 58a).

This completes a skeleton review of the case for controlling exports of civilian technology to the USSR. While two academicians, Vernon and Goldman, present the most cogent argument for this position, it should be stressed that the semi-official DOD Bucy Report (below) also argues for a similar cost-benefit approach to sales of technology to the USSR although this position is not the major emphasis of the Report.

The V-G position seems vulnerable at several levels. First, an implicit assumption underlying the arguments in the preceding paragraph is that private and social costs and benefits often diverge in the United States, and that these divergences may be substantial. That they may diverge is unquestionable; whether these divergences are substantial, however, is questionable and one on which, to my knowledge, there is no empirical information. As for the Soviet Union, the explicit assumption is made that since the Government has a foreign trade monopoly, it always calculates the full social costs and benefits of trade and, further, uses its monopoly power to exploit its trading partners thereby minimizing the costs and maximizing the benefits. The assumption of a rational and prescient foreign trade monopolist which maximizes trade benefits seems very far from reality, indeed. Despite its economic achievements, all that we know about the inefficiencies of Soviet central planning with irrational prices would lead us to believe, by extension, that its conduct of foreign trade would suffer from the same inefficiencies. In fact, Soviet bloc literature which deals with foreign trade choices under conditions of meaningless exchange rates and irrational prices provides circumstantial evidence that the foreign trade sector is no exception to the general inefficiency of the economy. This literature abounds in examples as to how the Soviets often import the wrong kind of technology (too capital-intensive, for example) and how inefficiently they exploit it. This particular argument of Vernon and Goldman, in my opinion, provides a very shaky basis, if any, for believing that the social gains to the USSR are apt to be excessive and greater than the gains reaped by the United States.

It, nevertheless, does seem probable that the gains to the USSR from a technology transfer do exceed both the private and social gains to the US for other reasons mentioned. We refer to the fact that the Western enterprise can profit even if price doesn't cover full costs but simply covers marginal costs, and to the further fact that US enterprises need not fear future competition as a result of the sale of technology to the USSR.¹ While this is true, it is not exceptional to the USSR but simply the nature of the beast, so to speak. That is to say, sales of technology to all nations have the first characteristic and to many nations, less dynamic than, say, Japan and Germany, the second characteristic as well. This is true not only of sales of technology by US enterprises but of sales of technology wherever they originate. The question must then be raised: why if this country and all other Western nations have never before attempted by government intervention to alter the market distribution of gains from sales of technology, should the United States attempt to do so in technology transfers to the USSR? There would appear to be no apparent economic reason, yet V-G stress that they are concerned only with economic criteria. In fact, technology transfers to dynamic Western nations like Germany and Japan should be of much greater concern to V-G because (1) the probability of future competition is increased thereby increasing the potential social costs of the transfer and (2) gains by these countries from imported technology are apt to be larger than by the USSR because of their superior ability to absorb, diffuse, and build on that technology--for the various reasons mentioned earlier. One can only conclude that the singling out of the USSR is politically rather than economically motivated; and this is certainly the way such an action would be viewed by the USSR. As noted above, V-G based their argument on the grounds that the private profit from sale of technology may be less than its social cost because of government R&D and export subsidies and because selling technology may reduce or eliminate later sales of the products made with the technology. These points may be well-taken. However, as before, these points are as relevant to trade with Western nations as they are to trade with the USSR. Perhaps even more relevant at present since the USSR is not benefiting from Ex-Im bank subsidized credit whereas other buyers are.

Assuming that the US Government decided to set up a screening committee to "...redress the negotiating balance between USSR Government agencies and US firms..." how successfully could this be done? In my opinion, the screening committee would have an impossible job. How would one go about determining the social costs or benefits to the US from a technology transfer? the gains to the USSR from that technology? the price which would maximize our benefits and minimize their gains? and so forth? Every proposed transaction would involve a major research effort. The time alone which would be required by the screening committee to study a transaction would be sufficient to seriously jeopardize the possibility of consummating the contract.

There is a further objection to the screening committee proposal. Suppose that the screening committee sets a minimum price for a sale of technology which is much higher than the firm would have set in the absence of intervention; suppose further that the USSR agrees to the higher price. One result of the higher price would be larger profits for the US firm. But are these

¹This issue was carefully researched by a Stanford Research Institute group. Their conclusion was that US commercial interests had little to fear from transferring technology to the USSR. Cf. Levine, Earle, Movit and Lieberman, 1976.

profits equivalent to an increase in social benefits? Certainly not to the same extent as would be the case if the Government captured for the Treasury the difference between the enterprise's asking (or reservation) price and the price actually charged. Of course, if the enterprise were allowed to keep all of the extra profit, part of it would return to the Treasury through the profits tax. Suppose, however, that the social cost consists of losses to other US firms which find the Russians (a) competing with them in third markets or (b) unwilling to buy their products now that they have the technology to be self-sufficient--two possibilities mentioned by V-G. In these cases, increasing the profits of the seller of technology would do nothing to alleviate the private and social costs connected with the loss of business, employment, etc., in the hurt enterprises, although some offset might occur if the technology seller were led by higher profits to expand operations. It could be argued that the possibility of higher profits through government intervention might even increase the incentive of sellers of technology to export to the Russians and thereby increase the negative fallout on other domestic enterprises!

Three final points need to be made. First, when civilian technology is sold to the USSR, it is typically sold by large, hard-nosed, sophisticated firms which are conscious of the value of the product they are selling and can be depended upon to bargain skillfully (cf. chap. 4 on "whipsawing"). Second, there are large gains, not previously mentioned, to be had from selling technology to the USSR. As former Secretary of Commerce, Rogers Morton put it:

...In those fields of technology where the United States now has world leadership, it is only a matter of time before other countries reach and pass the present US level. Consequently, to maintain our lead, US companies must maintain a high level of investment in research and development. Selling technology in East-West trade provides American companies with revenue for their research and development and, at the same time, the prospect of sales to an enlarged world market including the East furnishes an additional incentive for these companies to invest in their research and development....

(Morton, p. 45)

Third, still other gains to this country could be had if we had greater access to Soviet technology. While this country has a comparative advantage relative to the USSR in the development of technology, there is undoubtedly a huge fund of technological developments in that country which are unknown to and unavailable to Western industrialists, not for specifically premeditated reasons but because of the general information gap which exists. Soviet R&D institutes carry on a huge amount of basic and applied research. For reasons mentioned earlier, much of this work lies fallow in the laboratories. As one scholar puts it "...The result of the great input plus low application of the output is a large stock of unused applied research..." (Dehaven, 1974). Efforts should be made to gain access to the unused as well as used (but unknown to us) applied Soviet research. Both the US and the USSR would profit from such an exchange. In fact, some indigenous Soviet technology has been imported into the United States--including "...underground coal gasification technology, a mechanical suturing device for use in operating rooms, an electromagnetic aluminum casting technique, tunneling technology, pharmaceutical technology, and an evaporative process for cooling blast furnaces ..." (Morton, p. 48).

To sum up, sale of civilian technology to the USSR does not appear to differ significantly from sale of technology to Western nations. Discriminatory government interference with East-West trade in technology including government power to establish minimum sale prices is, therefore, opposed.

G. US Export Control Policies: Detente and After

Postwar US export control policies through the 1960s were described in Chapter II. The basic legislation setting up these controls was the Export Control Act of 1949. Basically, the purpose of this Act was to control (pre-vent) the export of strategic commodities to the communist nations. By strategic is meant commodities embodying advanced technology, particularly technologies with possible military spinoffs. While in practice the implementation of this Act became more liberal as time passed, the basic Act remained illiberal until the Export Administration Act of 1969

Detente

The 1969 Act, as noted earlier, represented a change in philosophy toward promoting rather than restricting East-West trade. The 1972 and 1974 extensions of the Act continued this more relaxed trend. There is some question, however, as to how effectively this legislation has been implemented. The general feeling of many observers is that the administration of the Act remained very conservative (restrictive) despite the liberal (promotional) intent of the Congress. Because it is so hard to define precisely what is "militarily important" to the target nations--a matter on which there may be large differences of opinion--the administrators of the Act have considerable leeway in interpretation. Furthermore, a license for export of a relevant product or technology cannot be granted until all agencies involved--including State and Defense--have given approval. This process can be long and ponderous and substantially reduce the profits from a transaction, thereby inhibiting trade. The license can also be vetoed by any one of the participating agencies in effect making approval dependent upon the most conservative agency, usually the Department of Defense. Although the President or Congress can override a dissent by Defense, such action would be unlikely.¹

The Export Administration Amendments of 1977 extended the 1969 Act until 1979. These Amendments continued the liberalizing trend of the law, though not necessarily of government practice. Among other things, the Amendments attempted: to simplify and speed up licensing procedures; to allow the export of goods which were available elsewhere, and which didn't threaten the security of the United States; and to not administer the export controls exclusively on the basis of whether the nation is communist or not. Basically, the simplification of procedures and liberalization of standards were designed to initiate a fundamental change in the export control philosophy: to establish exporting as a "right" which might be denied under unusual circumstances rather than "a privilege subject to government controls" (Bresnick, p. 6) which has been the case in exports to communist nations since World War II.

¹The important role of the Defense Department was established by the Defense Appropriation Authorization Act (P.L. 93-365). Much of the information above on the Acts of 1969 and 1974 derives from the testimony of John Hardt, p. 436, Hardt in "A Reassessment of US Export Licensing in East-West Commercial Relations," from Hearings before the Subcommittee on International Trade and Commerce of the House Committee on International Relations, March 1976, pp. 20-36.

Despite these new procedures and policies, many of the decisions of the Carter Administration have fallen into the old mold. On June 23, 1977 shortly after signing the new Amendments, the President denied the export of a computer by Control Data Corporation to the USSR because of possible military uses, a risk which the Corporation felt could be subject to adequate safeguards against. The denial of a Sperry Univac computer system to the Soviet News Agency in July 1978 and the requiring of validated licenses again for exports of oil and gas-related technologies in August 1978 were also contrary to the spirit of the 1969 Act and 1977 Amendments and apparently were inspired by Soviet treatment of dissidents (see Chap. XI; also Bresnick, pp. 7-8). Such events underline the difficulties in depoliticizing trade policies.

US Government policies toward technology transfer, both in general and with regard to the communist bloc in particular, are still evolving. The latest pre-1980 development along these lines, the so-called "Bucy Report," which appeared before the 1977 Amendments, put forth the views of the Department of Defense (DOD).¹

There are several lines of argument. The present export control system is viewed as inadequate because it treats as of equal importance the export of products embodying high technology and the export of design and manufacturing know-how. Products, they argue are rarely "strategic" (although they could be) and most high technology products cannot be reverse-engineered as used to be true of earlier and lower-technology products.² On the other hand, the transfer (by whatever means) of design and manufacturing know-how puts the recipient in a position of being able to produce the product himself, thereby raising his technological capability. The success of the transfer depends on two factors. First, the transfer will be more successful if the donor plays an "active" role such as establishing a turnkey plant followed up by frequent consultations with the receiver and training technicians. More "passive" mechanisms are transfers which result from commercial literature, trade shows, product sales, licenses without know-how, and the like. Second, success will depend on the competency of the recipient nation--of its engineers, managers, scientists as well as whether its infrastructure is capable of properly supporting the technology. In the opinion of the authors of the report, the USSR and Eastern Europe have the requisite infrastructure and are "...receptive hosts for any active efforts to transfer...technologies..." (p. 4). This opinion is somewhat at variance with that of other knowledgeable observers, as noted above.

How does one draw the line between technologies which should or should not be licensed for export to communist countries? The report distinguishes between "revolutionary" and "evolutionary" developments. Revolutionary technologies are entirely new ways of producing products or entirely new

¹An analysis of Export Control of US Technology - a DOD Perspective, Office of the Director of Defense Research and Engineering, Washington, D.C., 4 February 1976. The Task Force was composed of DOD officials and executives of major companies which produce advanced technology products.

²They believe, incidentally, that there are far too many products on the strategic list and that the processing of applications for licenses is much too slow--slower than that of other NATO nations. Note: the term reverse-engineering means learning how to produce a product by taking apart a sample unit.

products such as were jet engines, semi-conductors, electron microscopes, and electronic computers when introduced. Evolutionary changes in technology are improvements in products or ways of producing them which cut costs or increase effectiveness without involving fundamental changes in product or process (rubber tires which last longer, the 200 inch telescope vis-a-vis the 100 inch, etc.). The DOD Task Force was in favor of allowing the export of evolutionary developments particularly when they are already available from many other potential donors. They were against exporting technology which represented a revolutionary change or, in the case of evolutionary change, where the gap between donor and recipient was very large.

The Task Force's objectives in export control are "...to limit the flow in key areas and to maximize the benefit/cost ratio for the United States and its Cocom partners in the growing and already substantial flow of high-technology trade with Communist countries..." (p. 17--their italics). "Key areas" are identified by military utility, "activeness" of the transfer, whether the technology in question is rapidly changing, and so forth. The Report worries about the relative inability of the US to control American consultants who are abroad either on their own or with foreign firms, and about the possibilities of US technology being re-exported to communist nations by allies or neutrals. It opposes allowing communist technicians to receive high technology training in this country and also opposes exporting technology to neutrals which we wouldn't be willing to export directly to communist nations.

The Bucy Report has done a service in pointing out that it is important to control processes rather than products and in indicating the need to streamline licensing procedures since present lengthy procedures often involve, in effect, pocket vetoes of potential contracts. The focus of the Report on the effectiveness of "active" as opposed to "passive" transfer mechanisms is another consideration which export control administrators should take into account. On the other hand, the stress on revolutionary vs. evolutionary developments in technology, while important in determining whether or not to license military-related technology, is also the kind of criterion which might lead control administrators to concentrate on the "gains from trade" and on civilian as well as military technology. Revolutionary as well as evolutionary technology is constantly being transferred from nation to nation, and, with the exception of military-related technology there would seem to be no reason why the USSR and Eastern Europe should be put in a special class on this account. In fact, as noted earlier, the losses from transferring revolutionary technology to, say, Germany or Japan, would be much greater. Presumably, American enterprises know the worth of their technology and will make sensible decisions on whether or not to sell and at what price. In fact, there is a serious question as to whether Government administrators are likely to make more sensible decision on such matters than private management.

It is perhaps worth noting that the Battle Act, passed in 1951, was designed to enlist the cooperation of NATO in achieving the goals of the Export Control Act. Lists of commodities proscribed whose shipment to nations "threatening the security of the United States", were drawn up. These were called Cocom lists after the international "Coordinating Committees" which administered them. The list of products whose exports were proscribed followed the American lists but were generally somewhat less restrictive. The Act provided that the

President could terminate aid to any NATO nation which knowingly exported banned products to the enemy nations. Since, at the time of enactment, Europe was receiving Marshall Plan aid, the potential penalty for not cooperating was, indeed, severe. Although there were many transgressions, the United States rarely invoked the Act's penalty probably because it was deemed militarily and politically inexpedient to do so. Further, after the mid-1950's the potential penalties became much smaller as US aid to Europe sharply declined with the end of the Marshall Plan.

The competence of the Export Control Board and whatever high level commissions review controversial cases is another critical issue. As things stand now, the DOD has virtual veto power over Board decisions (although higher authority resides in the President who himself can be overridden by the Congress). Inevitably, the DOD will be conservative--not be willing to take any risks at all. In effect, the enterprise applying for a license has to prove there is no risk in the transaction except in those rare cases which go to the President in which the DOD may be forced to prove that there is a risk. This puts "...a negative bias in the review process" (Hardt, Reassessment, p. 11). What is needed is "...a high level commission whose members have unbiased interests and broad perspectives so that all factors are properly weighted. This is not achievable in a review by just representatives of the Departments of the Executive Branch of the Government..." (Schmidt, p. 12).

From the discussion in the above two paragraphs, one might think that the "negative bias in the review process" means that the bulk of applications been export licenses had been rejected. In fact, the opposite has been true. In 1974, for example, 134.9 thousand applications were processed of which 110.7 thousand or 82 percent were acted on favorably (Hardt, Reassessment, Table I). The fact that so many applications were granted licenses was heartening. On the other hand, it may simply have meant that the Export Control net was still much have been too large and forced to review many applications which should not be subject to review, a situation which concerned the authors of the Bucy Report. One should also ponder the fact that more than 24 thousand applications for license were denied. This would seem to be a very large number,¹ indeed, and reinforces the presumption that a negative bias existed in the review process. One must also consider that the complexity of the review process and its presumed negative bias probably acted as an impediment to application for license for many enterprises which felt that their product or process was controversial and that a negative bias did exist. Negotiations for contracts with Russians and the export review process can be extremely time-consuming and costly and not something that an enterprise undertakes if there is any uncertainty regarding the outcome. The uncertainty and time involved is, incidentally, enhanced by the facts that in controversial cases, there must be full consultation among the Departments of the Government which are involved and that unanimity of opinion is required for approval.

The export review process came a long way during the 1970s and was still evolving when the USSR invaded Afghanistan. As things stood in December, 1979, however, our export control policies with regard to exports to the USSR left much to be desired, especially if viewed in the perspective of a nation committed to detente. The DOD's veto power usually guaranteed a conservative

¹How many is "large" is, of course, a value judgment!

approach to export decisions. President Carter's politicization of export controls in 1977 was a serious blow to the liberalization trend. Finally, of course, maintaining policies more restrictive than those of other nations was so ineffective as to cause rational observers to question the common sense of those in charge.

March, 1980 and after

The gradual relaxation of export controls that began with detente came to an abrupt halt immediately after the Soviet invasion of Afghanistan. Some 700 licenses that had been granted to American companies to export advanced equipment to the USSR were suspended pending the development of new guidelines. New guidelines were announced on March 18, 1980, the essence of which was paraphrased by the Department of Commerce:

"The new guidelines impose tighter controls in such areas as computers and software, manufacturing technology and materials critical to the manufacture of high-technology defense goods." (New York Times, 3/19/80, p. D1.)

Among other things, this means that export of oil technology and expertise will be forbidden. It also undoubtedly means that many, if not all, of the 700 suspended export licenses will be revoked. How much further the administration will go is difficult to predict. There are, for example, members of Congress and of the Administration, who would like to forbid the export of parts to the Kama River Truck Plant on the grounds that trucks manufactured there were among those used in Afghanistan. Such an approach is, in my opinion, extreme. On this logic, one might consider forbidding the export of handkerchiefs, shoes, and toilet paper to the USSR if such items were used by Soviet soldiers!

What this administration must keep in mind is that its ability to hurt the USSR is very limited, even with NATO cooperation. Moreover, with minor exceptions, it will not receive cooperation from the other NATO nations. This means that the USSR will be denied only a fraction of the items we have embargoed and that the profits, jobs, and foreign exchange which would have been generated to our benefit by the embargoed exports will redound to other countries instead--and not for just one year but for as long as the embargo lasts, if not longer. The embargo on oil technology has its own possible perverse effects. True, it may adversely affect Soviet oil output in the near future. But is this an outcome that the US should greet with cheers? Two major problems facing this country are (1) the world oil shortage and its implications for our balance of payments and (2) the threat of Soviet aggression in the oil-rich Middle East. By hindering Soviet attempts to increase its own output of petroleum, we increase the world oil shortage and encourage the USSR to covet Middle Eastern oil.

There are some who lament the fact that the NATO nations have refused to go along with our embargo, as well as with other measures of economic warfare, thereby almost totally vitiating the impact of our own measures. Politics aside, their reluctance, in many cases, makes good economic sense. For while US trade in general and especially with the USSR is small enough to be sacrificed for political ends, the same is not true for all of the NATO nations. While their

dependence on East-West trade is nothing like their dependence on imported petroleum, nevertheless the losses from mounting an embargo could be substantial and in many instances greater than those which would be sustained by the USSR. From the standpoint of NATO as a whole, then, an embargo on trade with the USSR is not unambiguously in its interest.

For 30 years this nation has attempted to use exports as a bargaining chip with the USSR, mostly punitively. The policy has never had a really significant impact on the USSR and its effectiveness (actual or potential) has declined steadily with the years. It is time that we closed shop on export controls to the USSR with the exception of those few products and processes which really make a difference in the military balance. And the decision as to which products and processes "really make a difference" should not be left entirely to the discretion of the Government Departments directly involved. Private citizens of wisdom and stature who are capable of taking a broader (than purely military) view of the nation's welfare should have a part in the decision-making process.

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Chapter VIII: Import Controls: Tariffs and Quotas, MFN, Anti-Dumping and Anti-Market Disruption

Introduction

Trade which is free of controls has been a goal of advanced Western nations. Generally speaking, such trade optimizes the gains which are to be had from the international exchange of commodities. Trade is never free, of course, and nations impose controls over both their exports and imports. Export controls are, for the most part; tools of economic warfare although nations also employ such controls to preserve scarce materials, precious artifacts, etc. (Export controls are discussed in Chapters II and VII) Import controls are used primarily for the protection of domestic industries which are having difficulty competing with foreign products. The motives behind protection are manifold ranging from attempts to sustain import-competing industries which produce military-strategic goods and services to yielding to the lobbying pressures of enterprises and labor unions which are hurt by imports.¹

There are several classifications of controls over imports. The most common division is between those controls expressed quantitatively (our quota on imported sugar) and those which operate through the price system, mainly tariffs. Another separation is sometimes made between *ex ante* and *ex post* controls. Tariffs and quotas are *ex ante* controls. They are set by legislation and exist as semi-permanent hurdles to foreign exporters. *Ex post* controls are controls which are brought to bear after a product has been imported or is about to enter the country. Usually, these controls are activated upon complaint by a domestic enterprise or industry. The major types of legislation in this category are those dealing with dumping and market disruption. The newest wrinkle in this area are the so-called voluntary export restraints (VER) which are negotiated with foreign exporters who might otherwise be subjected to a market disruption proceeding.

The *ex ante* controls are, of course, quantitatively much more important than the *ex post* controls. Between the two major types of *ex ante* controls, tariffs and quotas, the United States relies much more heavily on the former whereas the other Western industrial nations rely quite heavily on quotas as well.

While controls over imports are used primarily for economic purposes, they also can be and are used to serve political ends and are part of the economic warfare arsenal. We refer to the fact that products from the CMEA nations, including the USSR, are subjected to discriminatory US import controls, mostly in the form of not being extended most favored nation treatment (MFN) (as noted in Chapter III). Most of the nations of Western Europe do extend MFN to the socialist nations. In practice, this is effective on tariffs but some lingering discrimination does exist with regard to quotas. It should also be noted that Poland, Romania, and Hungary are members of GATT and are thereby entitled to MFN from all the members of GATT, presumably even from the United States. Until 1975 Romania, and 1978 Hungary, did not receive MFN because of article 402 of the Trade Act of 1974 which ties MFN to emigration policy (below).

¹Subsidies to import-competing industries are often used as a substitute for one or another type of import control. Our merchant marine, for example, is subsidized.

The MFN Issue

Before proceeding further, it is worth repeating briefly here, that because of the nature of centrally planned economies, they cannot reciprocate MFN in the manner of market economies (as noted in Chapter III). Reciprocation in a market economy means extending to a most favored nation the lowest level of tariffs (and quotas) that is extended to any third nation. Since tariffs serve no real market function in a CPE, and since quotas are implicit (in planning decisions) rather than explicit (where private trade is held below profitable levels), these means of reciprocation are not available to the socialist nations. However, the systemic gap has been bridged, in GATT at least, by having the socialist nations agree to import more from other GATT members as a substitute for lowering tariffs or reducing quotas.¹ Poland agreed to increase its imports from GATT members by 7 percent annually, Romania by the same percentage as its total imports increase. Similar arrangements were made on a bilateral basis by these two nations and by some other CMEA nations with Western nations.

This approach does provide something of a bridge over the systemic gap with regard to MFN, but not one which is entirely satisfactory, however. First of all, to the extent that it is applied bilaterally, there is no reason to believe that the increased imports from the bilateral partner do not simply represent diversions of imports away from other Western trading partners. Secondly, even where MFN is multilateralized as in GATT, there is no reason to assume that implementation will be multilateral. For example, when Poland was accorded MFN by the GATT nations, it agreed to purchase 7 percent more per year from those nations as a group. Were Poland a free market economy whose tariffs were lowered to the exports of the GATT nations as a group, then in theory (*cet. par.*) it would have expanded its imports by choosing the best buys made available by MFN. However, there is no reason to believe that a state-trader like Poland would not favor some GATT nations over others and would not make some of its purchases on the basis of non-commercial considerations. On the other hand, the extent of deviation from nondiscrimination may not be large; Poland and the other CPEs, with their serious hard currency shortages, have strong motivations to maximize the gains to be had from spending hard currency. The extent to which MFN is implemented on a nondiscriminatory basis among GATT nations is a subject worthy of some study.

Third, while Poland agreed to increase its imports by 7 percent and Romania by the percentage that its overall trade increases, one must question whether these amounts truly represent reciprocity. So far as I know, these amounts have not been justified although they may well represent appropriate proportions. In assessing this matter, it might be relevant to consider the degree of discrimination which may (or may not) have existed at the starting date.

Fourth, as members of GATT, the CPEs benefit from reductions in tariffs which result from large multilateral bargaining sessions, the latest of which was the Tokyo Round. Presumably, all tariff reductions negotiated in Tokyo are applicable to CPE imports. However, there is no provision in GATT, to my knowledge, for the CPEs to reciprocate these reductions in barriers. They are, in effect, free riders.

¹Hungary argued successfully with GATT that its tariffs served a real price function; hence Hungary's status in GATT is like that of a market economy.

Fifth, so far we have looked at MFN from a standpoint of nondiscrimination by CPEs among Western nations. There is no question, however, about the fact that the CPEs discriminate in favor of trade with each other and against trade with the West. At the moment, this is partly a function of the hard currency shortage. However, it also appears to represent a political-strategic decision--intraCMEA trade is much larger than it would be based on purely commercial considerations. To take the most obvious example, the USSR would certainly export more petroleum to the West and less to CMEA if it was motivated simply to maximize its economic gains from trade. CMEA can, of course, be viewed as the Eastern equivalent of a customs union and the members allowed, under GATT rules, to grant each other preferential treatment. The problem which arises under this interpretation is that the degree of preferentiality in trade appears to be much greater in the case of CMEA than under the European Community or other Western custom unions. How much preferentiality is consistent with the goals of GATT is a question which needs to be considered. While under the present shortage of hard currency, CMEA members clearly spend every available cent they have in the West and make considerable effort to increase their exports to the West, this has not always been true and may not be true in the future. Unlike Western customs unions which lower the barriers to trade amongst themselves and simply equalize barriers to outsiders,¹ CMEA may be viewed as a group which not only did the equivalent of lowering barriers amongst themselves but undoubtedly also did the equivalent of significantly raising barriers to products from the West. In no other way can one view the shift after World War II by CMEA nations from trading approximately 15 percent with each other before World War II to approximately 75 percent with each other by the early 1950's. Admittedly, Western controls helped implement the transformation of patterns.

The Soviet Union, and perhaps the other CMEA nations, do not recognize this line of reasoning. In their view they treat all nations equally in trade, and they feel that they should also be treated equally--not discriminated against--and therefore accorded MFN treatment with regard to their exports. This position--that all Western nations are accorded MFN and treated in a non-discriminatory fashion--might be defended along the following lines (although it has not been done so explicitly in the Eastern literature). The socialist nations develop most of their intraCMEA trade in large bilateral bargaining sessions (Chapter III). They would prefer to trade with Western nations on the same institutional basis since it makes planning easier. However, this is not possible for obvious systemic reasons, for the capitalist nations. It could be argued that much of the apparent skewness in trade structure is due to this system of doing intraCMEA business--natural under planning and unnatural under market capitalism--and not to any desire to discriminate. The apparent discrimination (by Western standards) which results, then, is not the fault of the socialist nations, by this reasoning, but that of the market economies who will not state-trade or is simply attributable to the differences between systems.

Whether or not the above position is well-taken, it is a fact that the CMEA nations do feel themselves discriminated against by being denied MFN by the United States. They argue that MFN is the natural state of trade and not a subsidy, loan, gift, or what have you. Further, the US extends MFN to repressive regimes everywhere without regard for the characteristics of those regimes. Only

¹In averaging and equalizing trade barriers to others, those members of a Western customs union with the lower barriers to begin with may actually have their barriers raised.

nonmarket economies are not accorded MFN--indeed a political insult of some magnitude. Viewed in these terms, it is easy to understand why the USSR (and Eastern Europe) rejected MFN when it was tied to their internal policy regarding emigration. No other nation's accession to MFN has had strings attached. The Eastern Europeans are not alone in this view. Theodore Sorenson, formerly in the Kennedy administration, has written:

"Part of the problem arises from confusion over the term 'most-favored-nation'. Congressional debate has frequently labeled the extension of this status a 'concession', a 'subsidy', a 'favor', a 'preference', or a 'privilege'. In fact, it is none of these. On the contrary, it is a recognition of normal, equal status, in effect a determination that no nation or nations will be favored. It simply assures the recipient that its goods will enter the United States at the same low tariff rates applicable to comparable goods of our other trading partners who make available equal status to us. It is a common worldwide approach--."

Sorenson supports his position by quoting the eminent Soviet specialist George Kennan:

"It [MFN] involves no one-sided transfer funds or goods; no loans, no gifts.../no/ act of benevolence...There is no more reason why normal trade relations between this country and the USSR should be regarded as an exceptional favor bestowed by us on them than there would be for regarding such relations as an exceptional favor bestowed by them on us."¹

It is worth noting that the principle of non-discrimination in trade has been enshrined by UNCTAD. In UNCTAD's 1964 Principles Governing International Trade Relations and Trade Policies, the second General Principle states "There shall be no discrimination on the basis of differences in socio-economic systems. Adaptation of trading methods shall be consistent with the principle."² The eighth Principle reads in part "International Trade should be conducted to mutual advantage on the basis of the most-favored-nation treatment, and should be free from measures detrimental to the trading interests of other countries" (p. 44).

The consensus seems clear. All, or virtually all the industrialized nations, accord MFN to the nonmarket economies. GATT accepts these nations with MFN after negotiating necessary special arrangements. Only the United States has strings attached although we have, as noted above, now accorded MFN to Poland and recently to Romania and Hungary. These latter two cases, if anything, make refusal in the Soviet case even more of a slap in the face. Yet when all is said and done, there is some question at least in this writer's mind, regarding the truth of the contention of the non-market economies that they, in fact, extend MFN to the West and do not show each other economic preferences on political grounds.

¹Both quotes taken from Sorenson, 1974, P. 276.

²Quoted in Dyumulen 1975, p. 43. This Principle is confirmed in later UNCTAD meetings.

United States MFN Policies toward the USSR

Our post World War II import policy was framed by the Trade Agreements Extension Act of 1951 under the influence of the Korean War. Section 11 of the Act forbade the importation of many different kinds of furskins from the USSR and China. Section 5 essentially denied MFN to the communist world including specifically, the USSR.¹ In fact, all concessions made by the US under bilateral agreements with the Communist nations, were suspended by the 1951 Act. The denial of MFN meant that imports from the communist nations were subject to the very high rates of the Smoot-Hawley Tariff Act of 1930 whereas imports from all other nations benefited from the many reductions of these rates negotiated over the previous 21 years and incorporated as amendments to the original Act. The rates in the Tariff Act of 1930 are still our basic tariff rates and, over the succeeding years, as tariffs have continued to be negotiated downward (as, for example, in the so-called Kennedy and Tokyo rounds), the degree of discrimination against many communist products has accordingly increased (below).

The situation regarding MFN with the Communist nations remained unchanged from 1951 until 1960, at which time Poland was accorded MFN concessions. These were withdrawn in the Trade Expansion Act of 1962 – but restored by the Foreign Assistance Act of 1963 before the 1962 Withdrawal had been put into effect. There was little further progress in the 1960s particularly because of the tensions generated by the Vietnam War. However, with the beginnings of détente in the late 1960s and early 1970s, steps began to be taken toward a US-USSR Commercial Agreement. Several meetings were held in 1971 and 1972 climaxed by a summit meeting in Moscow between President Nixon and Secretary-General Brezhnev. At that meeting, “basic principles of relations” between the two countries were hammered out. The seventh principle states:

“the United States and the Soviet Union regard commercial and economic ties as an important and necessary element in the strengthening of their bilateral relations and thus will actively promote the growth of such ties. They will facilitate cooperation between the relevant organizations and enterprises of the two countries and the conclusion of appropriate agreements and contracts, including long-term ones.”²

The Trade Agreement between the US and the USSR, implementing this principle, was signed in October, 1972. Among other things it provided that each country would extend MFN treatment to the other. In the negotiations, extension of MFN and the Agreement itself was tied by the US to a settlement of the Lend-Lease account. The Lend-Lease settlement, a major obstacle (as noted in Chapter II), was overcome and the USSR agreed to pay \$722 million over a period ending July, 2001. The stage was set for MFN and all that remained was for Congress to pass the enabling legislation. The enabling legislation was contained in the Trade Act of 1974. However, Article 402 of the Act specifically ties the extension of MFN (as

¹Cf. Anton F. Malish, United States East European Trade, US Tariff Commission, 1972; and a shorter version “An analysis of Tariff Discrimination on Soviet and East European Trade” ACES Bulletin, Spring 1973, pp. 43-56. Curiously, the major furskin imports from the USSR, persian lamb and squirrel, were exempted from the embargo (Malish, 1972, pp. 6-7).

²Cited in Soviet Economic Prospects, p. 645.

(well as Eximbank credits and credit guarantees) to any non-market economy to its willingness to allow its people to emigrate freely and without the imposition of "more than a nominal tax." As is well known, the USSR reacted to this so-called Jackson-Vanik amendment, by refusing to confirm the 1972 Trade Agreement.¹ Payments on Lend-Lease stopped and the situation with regard to MFN to the USSR remains as it has been since 1951.²

Economic Impact of Denial of MFN to the USSR

The important economic question which must be raised is: to what extent are (have been) Soviet exports to the United States reduced by the refusal of the US to extend MFN tariffs? This is not an easy question to answer for several reasons. First, tariffs vary from product to product, and much depends on the kinds of products which are traded between the two nations. In particular, raw materials are relatively free of tariffs, especially high tariffs, whereas manufactured products are subject to more and higher tariffs. Another complicating factor is the fact that not only do tariffs vary among products, but the differences between MFN and non-MFN tariffs also vary and not by the same amounts. Third, the effect on sales of tariff differentials or changes in tariffs will vary among products depending on the so-called price elasticities of demand. That is to say, a 10 percent reduction in price of a price-elastic product will lead to a greater increase in sales than the same percentage reduction in the price of product for which the demand is price inelastic.

Several studies have attempted to assess the MFN effect on the USSR and on Eastern European nations as well.³ While there have been some differences among these studies, there has been substantial agreement that the USSR has less to gain from MFN than the other Eastern nations and that the potential gains are fairly small. Malish, in the very earliest study, put his finger on a crucial factor, namely that the products which the USSR exported to the US by and large bore little or no discriminatory tariff, in contrast especially with the more developed CMEA nations. So, for example, in 1970, 90 percent of the \$64 million worth of US imports from the USSR either bore no tariffs or tariffs which exceeded the MFN rates by less than 5 percent. The discriminatory rate on the remaining 10 percent exceeded 5 percent.⁴ (Generally speaking, a 5 percent differential is considered small enough to be almost ineffectual in restricting imports.) On the other hand, 73 percent of Czechoslovakia's exports to the US and 85 percent of East Germany's fell in the greater than 5 percent category in 1970. Hungary and Romania fell in between, 43 and 42 percents, respectively, with an over 5 percent differential, and Bulgaria (17 percent) was similar to-the USSR.⁵

¹Article 613, the so-called Stevenson amendment, severely restricted the amount of credit or credit guarantees the USSR could expect to receive from the Eximbank and was another factor in their rejection of the 1972 Trade Agreement.

²See the extended discussion of MFN and the Jackson-Vanik amendment in Chapter XI.

³Malish, 1972; Malish, 1973; Jelacic, 1974; Wolf-Hardt, 1975; Elias and Searing, 1974; Raffel, Rubin and Teal, 1977; and Daniel, 1977; and Brada and Wipf, 1975; and others.

⁴As of 1974, Daniel (1977, p. 3) estimates that of the \$334 million of imports by US from USSR, 76 percent were free of duty, 93% had a 0-5 percent differential and only 7 percent had a greater than 5 percent differential.

⁵Malish presents figures for 1951 and 1966 which differ for some countries but are largely similar to 1970 in the case of the USSR.

While the above figures are suggestive, they are not hard evidence that lowering Soviet export prices to the US via MFN might not have a significant effect. Several studies have attempted to get at this effect by comparing Industrial West (IW) and Japan imports from the USSR with US imports from the USSR of different commodities. The theory is that if the US extended MFN like IW does, then the proportion of its imports of various commodities that the US buys from the USSR should be as high as the proportion that IW buys. (For example, both the US and IW import unwrought magnesium; 16 percent of IW's imports are from the USSR whereas the US, with a high tariff differential, imports none from the USSR. In theory, if the US extended MFN and eliminated the tariff differential, it would import approximately 16 percent of its unwrought aluminum from the USSR. (cf. Daniel, p. 8). In the aggregate, the US imports proportionately only about 1/8 as much as IW. So, in 1974, imports from the USSR constituted 0.7 percent of IW imports in contrast with 0.09 percent of US imports. The largest differentials between US and IW imports occurred in commodities where the tariff differentials were very large, clearly indicating a significant price elasticity of demand for these products. The price effects of extending MFN would undoubtedly encourage US buyers to import more of these products from the USSR. However, it is important to note that these price effects could never raise aggregate US imports from the USSR to IW levels because significant tariff differentials exist on such a small percentage of US imports from the USSR, as indicated earlier.

A similar, but more involved, study by Raffel, Rubin and Teal (RRT) of the effect of extending MFN to all the Eastern European nations in 1974 or 1975 appeared elsewhere in 1977. This study estimates that extension of MFN to the USSR would have increased Soviet exports to the US by 9.1 percent in 1974 and 7.5 percent in 1975. These are the smallest amounts recorded for any of the CMEA nations. With the exception of Romania whose increases were estimated at 26 and 29 percent, the remainder ranged from 45 percent (Bulgaria, 1975) to 277 percent (GDR, 1974). The problem with the USSR according to RRT was, as noted earlier, that most of its major exports are not subject to significant tariff differentials. In fact, only 6 of 50 major export items proved to be tariff-sensitive: unwrought aluminum, refined copper, ferroalloys, kraft paper, plywood-veneer-inlaid wood, and dressed furskins. Potential increases in exports of these 6 items accounted for virtually all of the potential increase in Soviet exports from MFN (pp. 1414-1415).¹

All of the studies which have been made attempt to get at the increase in Soviet exports which would result if tariffs, hence prices, were reduced through MFN. As some of the authors point out, this overlooks the political and psychological impact of extending MFN. As Daniel argues (p. 11), extending MFN might lead the Russians "...to push trade with the United States..." and thereby widen the spectrum of exports to the US beyond that presently represented in the trade returns. Marer and Neuberger (p. 57:1) spell out the political and psychological factors involved in extension of MFN as viewed by the Eastern Europeans as follows:

"The US market is very large, sophisticated, and segmented; penetrating it will require a heavy investment in market research, advertising, and other selling costs, as well as the allocation of a large portion of output. The absence of an acceptable

¹This study also attempted to assess how much trade Poland would lose if MFN were withdrawn. The results were striking: Polish exports would have declined by only a little more than 2 percent.

political framework, symbolized by lack of MFN, reduces greatly the willingness of planners to bear the high costs of entering the US market with a wide range of manufactured products. Thus, they (the Eastern Europeans] stress the importance of the dynamic effects of goodwill created by the granting of MFN which they see as a precondition to changes in existing trade patterns."

These caveats to the MFN studies are undoubtedly well-taken, though it would be difficult, indeed, to even guess at their quantitative implications. Moreover, while the extension of MFN would certainly create goodwill, the effect mentioned above might be stultified if this nation continued to restrict credits and to discriminate in other respects. Finally, while an improved climate for trade might encourage Eastern European efforts to export, not as much can be expected from these efforts so long as the Eastern nations, especially the USSR continue to produce, for systemic reasons, sub-quality manufactured products. The prospects for an improved climate, of course, are pretty dim since the Soviet invasion of Afghanistan.

Dumping and Market Disruption

The United States Government, like many other Governments, is concerned with protecting its economy (enterprises, workers) against two kinds of possible impacts of imported goods. These are, first, imports which represent unfair competition and, second, imports which, though "fair," cause injury to domestic import-competing enterprises and industries. Unfair competition is deemed to result when the price at which a foreign exporter sells is below the price in his home or third markets or is below his cost of production. This may happen because the exporter is receiving a government subsidy or, on the other hand, because he is willing to suffer losses in an attempt to take over the foreign market-after which prices will again be raised. This latter practice is viewed as "predatory pricing." These categories of unfair competition are called dumping. The communist nations have been accused of dumping and the anti-dumping legislation has been applied against them. It should be noted that anti-dumping legislation is not applied unless it causes "injury" or "market disruption" since it takes a complaint by some sector of domestic industry or labor to start the legal ball rolling. "Injury" or "market disruption" under fair competition is more difficult to define rigorously since injury and market disruption are always a matter of degree, i.e., are marked by continuous rather than discrete changes. The laws which apply in general to market disruption by foreign exporters can be applied to the communist nations. In addition, Section 406 of the 1974 Trade Act specifically applies to market disruption by exports from communist countries.

We turn now to consider dumping and market disruption in that order.

Dumping¹

Capitalist nations "dumped" goods on each others' markets long before the first successful communist revolution in 1917. However, systemic differences between centrally planned and free market economies have put special obstacles in the way of dealing with dumping or alleged dumping by the former, obstacles which are more intractable than those generated by other commercial policy issues.

Two conditions are usually necessary for dumping to occur. First, the foreign exporter must be selling in the importing nation's market at below the price at

¹See discussion of dumping in Chapter III.

which import-competing domestic enterprises are selling. For, if the competition is not serious enough to cause distress among domestic enterprises, then the question of dumping is not likely to be raised. Second, the foreign exporter must be selling either at below his cost of production or at below the price which he charges on his domestic market. "Below cost of production" is the most commonly used condition and the one adopted by GATT. Below the exporter's domestic price is the definition adopted by the United States in the Anti-Dumping Act of 1921¹; such a price is viewed as "less than fair value."

Why is it that nations oppose dumping? The nation receiving the dumped goods does, after all, get its imports cheaper! And such would be the case if the nations which are successfully invading one's markets have a true comparative advantage in the production of the product in question. This is the rationale of international trade and is what the so-called "gains from trade" are all about. Once the foreign enterprise captures all or part of the market, the resources in the displaced local industries move into activities in which the home nation itself has an advantage. The end result is that both consumers and producers in both countries gain after some transitional losses among the originally displaced producers.

Suppose, however, the exporter is selling at below-cost, i.e., at a loss, in foreign markets in order to capture the market from domestic producers. Presumably, sales at such prices cannot or will not continue indefinitely. Having successfully captured the market, one could expect the foreign exporter to raise prices again. Under these circumstances, the domestic consumer would be no better and perhaps worse off than before and the domestic producer and his employees would be worse off. Better not to allow the dumped goods on the market either at all or at below the domestic price in the first place. The argument is much less clear if the exporter sells not at below cost but below his selling price at home, as the US law stipulates. Conceivably, such an exporter could discriminate in this way between markets indefinitely. So, in fact, the US definition is based on a concept of injury rather than of "efficiency" in the last analysis. This definition, it should be noted, is favored by many because it is so difficult to obtain accurate data on "cost of production" whereas the price in the exporter's home market is directly observable.

There is a 180-degree asymmetry in attitudes toward dumping by market and planned economies, respectively, as a result of systemic differences. Enterprises in market economies are vulnerable to "dumping" and have to appeal to their governments to protect them--to prevent foreign exporters from engaging in "unfair" competition. It may even be the case, incidentally, that the foreign exporter is able to outcompete the domestic enterprise as a result of government subsidies or other kinds of assistance. Protection, if justified, is exercised either by excluding the product or by levying an offsetting "countervailing" duty which,

¹Under US law, the Dept. of Treasury decides if dumping is actually occurring and the International Trade Commission determines whether the domestic industry is suffering injury.

for example, is equal to the amount of the subsidy.¹

Centrally planned economies, on the other hand, welcome dumping. Products from abroad enter these nations only when they are desired. They do not compete with domestic enterprises but are simply planned to supplement domestic supply. The lower the price at which they are brought in, the greater the profit of the foreign trade monopoly and gain to the nation as a whole. Western enterprises have no motive to sell at below cost or at below their own domestic selling price in order to outcompete a communist enterprise. They may, however, sell at a discriminatorily low price if they are competing with other Western suppliers for the particular communist market. As far as the importing nation is concerned, this is all to the good. Basically, then, dumping is a problem in which capitalist enterprises and nations are the aggrieved parties by acts which may be committed by either capitalist or communist nations.

As noted above, dumping is not a new problem in international trade (not to mention its counterpart in domestic trade) and nations have been protecting their enterprises against alleged dumping for decades. (I used the word "alleged" because it is a fact that domestic enterprises which are being out-competed by more efficient foreign enterprises will often try to save themselves by claiming dumping.) The Soviet Union was first accused of dumping during the Great Depression of the early 1930's. At that time, with world demand collapsing and prices everywhere falling, the Russians, like everyone else attempted to sell by undercutting their competitors. Among other things, they attempted to sell grain, timber, coal, flax, fur, oil, and other raw materials at extremely low prices and were accused on many fronts of dumping. They were not the only nation breaking the "rules of the game" at this time, of course. Under the pressure of the depression, "beggar thy neighbor" policies were rife as enterprises from other nations dumped and nations, themselves, raised tariffs, practiced competitive currency depreciation, introduced import quotas, defaulted on debts, and the like. The Soviets were not anxious to "dump" since this meant exporting at prices much lower than had been planned--at approximately 40 to 50 percent of planned price; this in turn meant that they had to export more in order to import the same quantum of imports, (prices of Soviet imports fell also but not by as much), an enormous hardship at the time. Despite the hardship, the USSR had a greater capability for dumping and possibly more to gain from it than other nations and their enterprises. The greater capability resulted from the fact that the Soviet exporters were state enterprises and the losses of such enterprises, whether nominal or real, were subsidized by the state budget. While it is true that some private enterprises are subsidized by the state in market economies, this has been the exception rather than the rule. The gain to the USSR from alleged dumping in the early thirties, at least as the planners saw it, cannot be exaggerated. Their First Five Year Plan for industrialization depended heavily on imports of

¹Technically, a distinction is made between anti-dumping duties and countervailing duties. Countervailing duties hark back to the Tariff Act of 1930 (presently as amended in Section 331 of the 1974 Trade Act) and are applied specifically to offset government subsidies which have been granted to either private enterprises of state-owned enterprises in capitalist nations. Anti-dumping duties are applied to offset discriminatory pricing by private or state enterprises (presently covered by Section 321 of the 1974 Trade Act). Countervailing duties have never been levied against communist products possibly because it is impossible to measure the amount of possible subsidies. As we shall see, it is not much easier, if at all, to measure the amount of discriminatory pricing by communist exporters. However, it is through adaptations of the anti-dumping statute that the US Government has attempted to get at the dumping problem.

and equipment; these imports, in turn, depended largely, though not exclusively, on exporting raw materials as planned. In effect, they felt that they had to buy the machinery and equipment (not to mention various other essential products like rubber and non-ferrous metals) regardless of the sacrifice in export price (and shortages at home) that this entailed.

Viewed in this way, of course, one could hardly call the Soviet market strategy classical dumping. They were simply desperately trying to earn enough foreign exchange to carry out their First Five Year Plan just as the various capitalist nations at that time were taking illiberal trade measures to prevent a further rise in unemployment. On the other hand, Soviet sales of grains and other raw materials at sacrifice prices in various Western markets were disruptive and would have probably been disruptive even without the Great Depression. The Russians at that time were not considering attempting to become long-term suppliers of many of the products they were exporting under pressure. Viewed from this standpoint they should be considered "dumpers" because while the motives were different, the disruptive effects are the same.

Aside from the incidents just mentioned, which were more a part of depression economics than of commercial policy proper, the Soviet dumping question remained on the back burner for approximately 25 years. Communist dumping was accepted as a real threat but one which had not in fact materialized in practice. The issue arose again, although not in US markets, in the late 1950's and early 1960's in connection with Soviet exports of aluminum, tin, and petroleum. Sales of aluminum were primarily to the British and in competition with the traditional Canadian suppliers. Tin sales were mostly to the UK and the Netherlands. The sales of aluminum appear to have been occasioned by temporary surpluses which resulted from shifting from the production of planes to missiles; sales of tin were undoubtedly surpluses absorbed by the USSR as payment for exports to China. The aluminum case appears to have been settled expeditiously when the Soviets were given a share of the market--one which they didn't make use of for very long. The tin case had more serious repercussions and in fact "broke " the International Tin Council in the latter's efforts to support a minimum tin price. The USSR was given a quota by the Council but refused the Council's offer that it become a member. As a result of Soviet tin sales, prices fell by around 15% with serious impact on Bolivia, Malaysia, Indonesia and Thailand. However, while in this and the aluminum case, dumping charges were thrown around, no actual procedures were instituted, primarily because third nation suppliers rather than importers were being damaged.¹

Soviet entrance into the world oil market on a large scale at the same time caused a much greater furor than did aluminum and tin, mainly because of the much greater importance of petroleum in world trade. The Soviets were able to defend their actions on the grounds that, traditionally, they had always had a fairly large share of the world market and that it was proper for them to recover their legitimate share. Further, while they were selling at prices much below those listed by Middle Eastern and other exporters, the fact was that most exporters paid little attention to list prices and sold at whatever price they could get at that time--a period of substantial overproduction.

One thing was common to aluminum, tin, and petroleum: the USSR was not dumping in an effort to oust other producers and take over the whole market. In fact, they were simply trying to "sell" in these other markets and there was no way

¹Information in the above paragraph can be found in many sources among them Pizar, pp. 235ff.

of gaining entry without cutting price.¹ They were not dealing in competitive markets but in markets in which substantial monopoly power existed. In the cases of aluminum and tin, they had no long run interest in the market and their activities were, therefore, disruptive. In the case of oil, they did have a longer run interest but price cutting was necessary to gain entry to the "cartel." It is very interesting to note that just a few years later--shortly after a huge field of industrial diamonds had been discovered in Siberia--an announcement was made that the Soviet diamonds would be marketed by De Beers. The capitalists and communists, alike, had learned the lesson and how to mutually benefit from it.

The three instances just cited--tin, aluminum, and petroleum--remain among the most famous cases of alleged communist dumping although over the past few years the famous Polish golf cart case has stolen the spotlight. To my knowledge, there is no easily available up-to-date list of cases in which the USSR has been accused of dumping by the US. In fact, between 1934 and March 1967,

"...there were approximately 557 dumping investigations, of which fifty-two involved communist countries. In only ten of these instances did the Treasury Department determine that the merchandise was being sold to the United States market at less than fair value. The Tariff Commissions subsequently determined that in eight of these cases no injury or threat of injury resulted from communist imports at discriminatory prices" (Feller, p. 132).

At the time this article appeared (1968), a US dumping charge on bicycles from Czechoslovakia had been issued, only to be revoked a few years later. Between 1970 and 1976 only 5 anti-dumping charges have been initiated against communist countries: Czechoslovakian felt fur hat bodies, Polish cast iron soil pipe fittings, Romanian work shoes, Romanian sheet glass, and Polish golf carts. The only one found to involve "injury" to a domestic industry was the golf carts. None of these, it should be noted involved Soviet exports. Elsewhere, the USSR has been charged with dumping center lathes in the UK and of dumping platinum, diamonds, cellulose, rubber and pharmaceuticals in still other nations (Pisar, 239).

In the 1934-1976 period, dumping (on US markets, at least) was certainly not an important issue in quantitative terms and dumping by communist countries even less so. It has recently grown in potential importance for several reasons. First, East-West trade has grown--and if it continues to grow, undoubtedly the number of dumping cases will multiply. In fact, "liberal" economists worry about the impact of East-West trade on Western trade "rules" in general as such trade expands. A second disturbing factor about the dumping problem has been the inability of economists and government officials to come up with a satisfactory criterion of dumping in the case of centrally planned economies. Third, and related to the first, are the more intense efforts by the CPEs, particularly as their balances of payments with the West deteriorate, to market manufactured products in the advanced Western nations. Consider the Polish golf cart case, for example. Here is Poland, a nation in very serious payments disequilibrium with the West. Through careful market research, it determines that there is a demand for electrically-driven golf carts in the US and

¹As Wilczynski puts it (p. 260): "It is one of the facts of commercial life that a newcomer must pay an 'entry fee', and the bloc countries simply had to conform to this ...to gain admission to world markets, facing fierce competition from established Western suppliers..."

that its light aircraft industry can produce a superior cart and sell it at a profit. Since golf is not played in Poland, there are no alternative domestic uses for the product. For several years, sales in the US were held up on dumping charges.¹ A case like this has serious implications for the efforts of the Eastern nations to reduce their deficits and pay their debts--and for the whole future of East-West trade. Finally, and this point is related primarily to the second, if a satisfactory criterion of dumping cannot be established, then the probability is that more restrictive criteria or techniques will be adapted as, in fact, has already happened (below).

We have already pointed out in Chapter III some of the problems obstructing the determination as to whether or not a socialist nation is dumping. A major obstacle is the "irrationality" of cost-price structures. The irrationality of costs and prices in these nations is sufficiently confusing even to their own authorities that special trade-efficiency indexes are constructed by several Eastern nations (incl. the USSR) in an effort to determine what should be exported and imported, respectively. Further, before these indexes can be used, domestic costs and prices have to be adjusted, commodity by commodity, to levels which are deemed by the planners more "realistic." In the USSR in the late 1960's, more than 250 such adjustment coefficients were used. Where trade efficiency indexes have not been used, the planners have established separate exchange rates for different sets of commodities--which amounts, more or less, to the same thing, of course.

A second and closely related problem is the fact that not only are internal prices irrational, but a link between internal and external prices is non-existent.

Supposing, even, that internal costs and prices were rational. Under these circumstances, there would nevertheless be no way of comparing them with prices in other countries because none of these nations (with the possible exceptions of Hungary and Poland) has a meaningful and functioning exchange rate. Suppose, for example, that the Polish domestic cost of producing golf carts in 1974 was 20,000 zlotys. What would be the appropriate translation of this price into dollars. The official exchange rate which the Government used in 1974 to convert foreign currencies into zlotys was 3.32 Z = \$1; at this rate the price would have been \$6,024. An official special rate applied to US transactions was 19.92 Z = \$1; at this rate, the price would be \$1004.² But what reason is there to believe that either of these rates has any economic reality? First, neither internal prices nor international trade relations are allowed to affect these rates or be affected by them. Second, and related, over time, exchange rates have remained relatively fixed despite sweeping changes in supplies, demands, world prices, etc.; similarly, internal prices have also remained relatively fixed despite important changes in underlying economic conditions. Third, the enormous deficits that Poland is presently incurring each year are a clear indication that if either of the above exchange rates were real prices, they would obviously be totally unrealistic (overvalued). Fourth, even if all of the other factors just mentioned were not obstacles, the fact remains that most of the socialist nations, and the USSR in particular, have so far not allowed access to the accounts of their enterprises or

¹This case was discussed in detail in Holzman, 1983.

²These rates are taken from Handbook, 1976, p. 47.

industries.¹

For several reasons, including some of those mentioned above, no attempt is made under the existing US legislation to determine whether or not dumping is taking place by looking at CPE costs or prices. Another technique, which is often used with other market economies, is also not applied to the communist countries. We refer to cases in which a market economy exports a product for which it has no domestic use--like Polish golf carts. Under these circumstances, it is the practice to examine the prices of the exported products by the same nation in third nations as a standard of comparison. This approach is rejected in the case of the CPEs because it is assumed that costs in the usual sense are not a controlling factor in the prices charged in third nations, hence such prices are not necessarily relevant.

As a substitute for this technique, another "third country approach" was devised and legislated in the 1960's. The technique was to find a third market economy which is similar in industrial development, per capita income, geography, etc. and which produces the same or similar product. The price of the product in that nation with adjustments where necessary, is then used as a proxy proxy for a "fair" price.² In cases in which similar third nations simply do not produce an identical product, the final resort is to construct hypothetically such a product in such a third country (what would it cost in Spain to produce a Polish golf cart?) and arrive at a so-called "constructed value."³

¹Another problem which comes to mind is the following. In Western markets, prices in relatively competitive industries are determined by market forces which means, in effect, by the highest cost or "marginal" producer. In a CPE, prices tend to be set somewhere near the average for the industry with less efficient producers receiving a subsidy. This difference between systems would create a problem additional to those already mentioned.

²This approach was used in the Polish golf cart case. A summary of much of the history of the Polish golf car case is contained in the Hearings before the Subcommittee on Trade of the House Committee on Ways and Means: Oversight of the Antidumping Act of 1921, Nov. 8, 1977, pp. 106-123. This case began in 1973 when the Poles offered golf carts in the US market at approximately a 40 percent discount on the US price. This brought down domestic prices and allegedly caused losses in the domestic industry. Originally, "fair value" was determined by looking at the price of the Marathon golf car produced in Canada and sold in the US. Because these cars were produced on a much smaller scale than the Polish cart, an adjustment was made for economies of scale. On the basis of adjusted Canadian figures, an anti-dumping charge was levied against the Polish carts and paid by the Polish company (Pezetel) through 1975. At this time, Marathon went out of business completely. Other third countries were proposed (e.g., Japan) but the enterprises in these other countries were very small, and their prices reflected not only this fact but the fact that they sold only in their protected domestic markets and were therefore not representative. In fact, since they were obviously not competitive in the US --not selling in the US market-- their prices could not be taken as representative of Polish prices. It has been claimed that US prices should be used under these circumstances and that Section 205 (c) of the Trade Act requires it. However, it is counterargued that this would be inappropriate since it would automatically exclude the Polish carts. The reason that this would be the case is that for purposes of the Antidumping Act, price is defined as excluding transport costs. Since Polish transport costs are bound to be higher, their selling price would therefore also have to be higher than the American selling price. The impasse at this point has led to the proposal to use a "value" approach as described below in the text. (Curiously, the Polish Government is presently being sued in the US District Court in the State of Delaware under the almost forgotten Anti-Dumping Act of 1916 which permits treble damages if dumping can be shown to be motivated by an attempt to destroy competition. The Poles have instituted, in return, a countersuit in which they accuse the American companies of attempting to monopolize the US market.)

³Cf. Sections 205(c) and 206 of the 1974 Trade Act.

This latest version of the "constructed value" approach is that proposed by a Polish Professor of Law, Stanislaw J. Soltysinski and adopted by the US Treasury in Fall, 1978. Professor Soltysinski proposed to the US Treasury, in the Polish golf cart case, that the exact physical inputs required by the Polish enterprise to produce golf carts be estimated and then that these inputs be revalued in the prices of a market economy at a comparable stage of development.¹ In this case, a "constructed value" in Spanish prices is estimated using Polish factor input weights.

These approaches are based, at least implicitly, on a Heckscher-Ohlin type of comparative advantage model as described in Chapter IV above and also on Ray Vernon's product cycle theory which is based on that model. Vernon argued (Vernon, 1966) that products are innovated primarily in high wage, high GNP per capita nations. Once these new products have been around for awhile and their production is routinized, then less developed nations with lower wages (e.g. Japan) are able to produce them--and at lower costs. Eventually even still less developed nations with still lower wages (e.g., Taiwan) become the successful low cost producers. The theory assumes that wages are the major cost of production--for most products a good assumption. While this theory holds in general, there may be many exceptions. As the work which has been done in the past 25 years on the Heckscher-Ohlin oversimple factor-proportions approach to comparative advantage theory has shown, many factors besides the prices of labor and capital determine which nations and enterprises achieve comparative advantage (see Chapter IV).

So in theory, these last resort approaches cannot be viewed as totally satisfactory (in our opinion) as criteria upon which to base anti-dumping decisions. The fact of the matter is that two nations could be identical by various macro-indicators and still produce the same product at widely different costs and by different methods. One of the striking facts about nations is their very differences under otherwise similar macro conditions. As evidence of this broad generalization, consider the data in Table IV.3 of Chapter IV, where ruble/dollar ratios of the prices of producers' durables in the US and USSR in 1955 were presented. The differences within categories is striking. For example, the ratios for motor vehicles vary from .34 to 2.28; for internal combustion engines, from .42 to 2.09; for metal working machinery, from .12 to 1.35; etc. That two nations should have such widely differing price ratios for similar products speaks to the lack of what might be called uniform cost hierarchies within and, presumably, among products. These results are not unexpected if one considers them in light of the vast and well-known differences within specific capitalist countries in costs of production between the more and less efficient producers of the same or similar products. Data of this nature are sufficiently dramatic, in our opinion, to cast doubts on the precision that can be asked of "third country" and "constructed value" approaches to evaluating dumping.

Before leaving this point, one more difficulty of an empirical nature in identifying dumping must be mentioned. We refer here to the fact that products, particularly manufactured products, are almost never homogeneous and prices, for this reason alone, cannot be expected to be uniform. Under ordinary circumstances, in the case of two similar market economies, one might expect a reasonably even distribution of high and low quality¹ products which would be

¹The term quality is used here to cover many dimensions including quality itself, durability, complexity, service, packaging, advertising, etc.

reflected in higher and lower prices, respectively, for various products. However, for reasons enumerated earlier (chap. 3), manufactured products sold by the socialist countries tend, in general, to be of lower "quality" and must therefore be sold, in the West, at lower prices than comparable Western products. Ericson (JEC-New Perspectives, p. 723) presents vivid evidence of Soviet discount pricing in 1974-75: transformers - 30%; resistors 30%; tractors - 20-40%; machine tools - 40-50%; turbines and compressors - compressors - 40-50%; color TV - 25-31%; injection-moulding equipment (to UK) 40%; agricultural equipment - 20-50%. Ericson doesn't make a judgment regarding the "quality" of these products, but in our opinion, this is certainly one factor behind the need to price at a discount. These figures raise an important issue. How can one tell whether the lower prices of exports of Soviet manufactured products reflect quality factors or, on the other hand, dumping. In many instances, the complexity of manufactured products is sufficiently great that the price differentials which pertain to specific quality differentials can only be determined in the market. The amount of "price" that someone is willing to pay to have a machine which is more easily serviced, which needs fewer overhauls, and so forth, contains a large subjective element which cannot be calculated analytically, that is to say, from the cost side. Where the value of quality differentials can only be determined by the market, then in these cases differential prices cannot be taken as evidence of dumping (within reasonable limits, of course)

Before leaving the question of dumping, a few final points need to be made. First, as regards motives, it is important to note that foreign trade monopolies to a considerable extent are very much like Western exporters in that they try to get as high a price as they can for the products they are selling. Under certain circumstances, however, they may not view the price at which they sell a product as the relevant measure of value received. Rather, they would view the product which can be bought with the earned foreign exchange as the true measure of value received. Soviet writers on foreign trade have often been quoted as saying "We export only in order to import." What this means, in practice, is that a foreign trade monopoly which appears to be selling at below cost may, in fact, have its eye not on the price but on the product it will buy with that foreign exchange. The Soviet authorities of the early 1930's knew they were getting a low price for their grain but accepted that price in order to purchase what they viewed as desperately essential machinery and equipment. Acceptance of this analysis tells us that it may be necessary to interpret a foreign trade monopoly's actions differently from those of private exporters. On the other hand, the disruption which may result from dumping so motivated can be as real as any other dumping--and to the extent that anti-dumping legislation is justified in the one case, it is also justified in the other.

Second, it was mentioned earlier in this chapter and also in Chapter III that CPEs do not have real exchange rates. It was also noted that if these exchange rates were real prices which influenced trade decisions, they could be viewed as grossly overvalued. This is indicated, at present, by the large hard currency debts and current deficits of these nations. In fact, the implicit overvaluation is certainly greater than these indicators suggest since current deficits would be much greater in the absence of strict controls. Let me illustrate the impact of this overvaluation on foreign trade pricing. Ericson pointed out (above) that Soviet turbines were offered at prices 40% below those of Western turbines in 1974-75. Assume a Western price of \$15,000 and a Soviet price of \$9,000. Assume also that the Soviet domestic price is 18,000 rubles and the official exchange rate is 1

ruble = \$1. If this were a real exchange rate and represented an "equilibrium" price, it could be argued that the Russians were dumping since at the going exchange rate they should be selling abroad at \$18,000. But suppose 1 R = \$1 represents overvaluation and that the real exchange rate which would bring their balance of payments into equilibrium is 1 R = \$.50. At this rate, an 18,000 ruble turbine would sell legitimately in the West at \$9,000 and this price would not represent dumping. The argument of this paragraph leads to the conclusion that a good part of the apparent dumping by the USSR (and other Eastern European nations) may be explainable by implicit overvaluation in part indicated by growing hard currency debts and deficits. Put another way, hard currency is worth so much to the USSR that it is willing to sell a turbine for \$9,000 even though Western nations demand \$15,000. Another piece of evidence that this is the case are the hard-currency shops within the USSR where foreigners can buy products for dollars at far below the official rates.

To sum up on the question of dumping. There are significant differences between the centrally planned and market economies in connection with dumping. Both capitalist and communist enterprises may have motives to dump in capitalist markets and capitalist nations may have legitimate reason to prevent dumping. On the other hand, a motive for dumping in planned economies is largely¹ lacking since the state controls all imports directly and does not allow competition with domestic industry. The major problem is how to evaluate dumping charges against communist enterprises, and this problem results from the fact that centrally planned economies do not have rational cost and price systems or real exchange rates. The third country and constructed value approaches are clever devices to bridge the interface between the systems since they provide surrogates for domestic prices in the prices of the comparable third nation and a surrogate for the exchange rate in the exchange rate of the particular third country chosen. Neither of these surrogates is highly reliable. The relationship between costs of production or efficiency of production between nations is only loosely related to per capita GNP and to general wage levels. And the exchange rate of the surrogate nation may be quite different from that which the CPE nation might have. For example, Poland and Spain might have identical per capita GNPs and be identical in every other respect except that one of them had large exportable surpluses of oil (or large inflows of investment capital). That one difference could significantly affect the exchange rate and the pattern of comparative advantages --including whether it is economical to export, say, golf carts. The surrogate nation could also yield a misleading rate of exchange if its rate of exchange is over- or under-valued. In the Polish golf cart case, use of the Spanish peseta probably helps to offset the bias against the zloty since it is unlikely that the peseta could be as overvalued as the zloty would be in a free market. But if the surrogate currency is overvalued, then the CPE nation's surrogate price will be higher than it should be and it would more likely be levied with anti-dumping duties¹; the reverse would be true if the surrogate currency were undervalued. The CPE nation might well be motivated to choose a surrogate currency which is as undervalued as possible--that is to say, choose the currency of a nation with a strong balance of payments position (surplus).

As of this writing (Winter, 1979), revaluing Polish golf carts in Spanish

¹We say "largely" because Western enterprises competing with each other for a market in a CPE might be tempted to dump as a device for capturing the market. However, if prices were subsequently raised, there would be less assurance of keeping the market than in the comparable capitalist case.

prices via Polish inputs and converting into dollars via the Spanish peseta, is the only case in which this technique has been tried. Polish representatives have expressed satisfaction with the results (oral communication). In my opinion, the US Treasury should have experimented with this technique on a number of products from different nations to see how it works in other cases before the method was finally fully accepted. In other cases, it might produce nonsensical results. At the moment, however, it promises to be the most satisfactory technique for bridging the interface between systems on the dumping question.

Market Disruption and Injury¹

Market disruption or injury to a domestic industry may result from "unfair" practices such as dumping but can, of course, simply be the consequence of increased imports which are the result of fair competition by foreign exporters. Generally speaking, "injury" has been relieved by legislations which are referred to as "escape clauses." The GATT escape clause is Article XIX, and this article allows GATT members to protect themselves from imports which are causing "serious injury."² The remedy in Article XIX must be applied multilaterally against members. That is to say, protection is against products, not nations, and the remedy is non-discriminatory by nation. However, an exception is made against the CPEs which can be dealt with unilaterally and discriminatorily by nations via Art. XIX or via national legislation.

The US has used escape clauses since 1942 (against Mexico) and generally since the Trade Agreements Extension Act of 1952. The latest version is contained in Title II of the Trade Act of 1974. The US law, like GATT's Article XIX, is on a product basis; it provides not only for import relief (sects. 201-203) but for adjustment assistance to the enterprises, workers, and regions adversely affected by the imports. Between 1962 and 1974, 28 cases were brought under the escape clause, and between the Trade Act of 1974 and June 1978, 31 additional cases were brought. In most instances, decisions were negative--i.e., the domestic plaintiff enterprise was not granted relief. This was true in 27 out of the 31 recent cases. None of these cases affected the communist nations.

It is important to note that the number of cases brought under the escape clause would undoubtedly have been much greater had it not been for the proliferation in recent years of so-called "voluntary" export restraints" or VERs. US (and other national) enterprises or industries injured, or just threatened by injury from imports, have been able to get their Government(s) to negotiate with foreign governments or exporters to keep exports at satisfactorily (to the import-competing enterprise) low levels. Sometimes the VERs have been used by enterprises or industries which have failed to get relief through the escape clause; other times, they have been invoked simply as a prior substitute. Standards of injury for VERs tend to be lower--in fact, as noted, even "potential" injury is an adequate excuse--and the whole procedure is operated on a largely political level without systematic standards. Under these procedures, of course, the enterprises or industries with

¹The best succinct summary of much of the material in this section is presented in Taylor-Posthelsinki.

²Article XIX was designed, in good part, to protect industries which were being injured by tariff concessions negotiated under GATT.

strong political connections are much more likely to be the successful ones.¹

The US-USSR Trade Agreement of 1972 was the first piece of US legislation to deal specifically with communist (Soviet) exports on a market disruption basis. Had that Trade Agreement been implemented, it would have granted MFN to the USSR. Because of fears by some that, with lower tariffs, American markets would be flooded by Soviet manufactured products, a market disruption clause was included. It should have been clear from difficulties that most Soviet manufactured products had had in penetrating European markets which accord MFN (because of their poor quality, etc.) that such fears were most unrealistic. Article three provides that if either country is threatened with market disruption, bilateral consultations will be held immediately and, if necessary, the offending exports will be appropriately limited upon request. This, in effect, is a VER. This article was adopted, presumably, because of the difficulties in applying the anti-dumping legislation to communist nations. A similar article is contained in the US-Romanian Trade Agreement of 1975.

The Trade Act of 1974 introduced a special market disruption clause for the non-market economies. The need for a special clause (article 406), despite the existence of the anti-dumping laws and the general escape clause of Title II, was given in a Senate Finance Committee Report:

- (1) The capability of state-controlled economies to disrupt the domestic market of the market economy through state control of the distribution and pricing systems;
- (2) The capability of the state-controlled economy to disrupt within a shorter period of time than could a free market economy; and
- (3) The need to be able to prevent undue dependence upon communist bloc suppliers (i.e. to maintain domestic production and/or assure non-communist suppliers of a continuing market share), especially in the area of vital raw materials.²

In terms of the realities of US-East trade, as experienced since World War II, it would obviously be difficult to justify this list of reasons although in theory one would have to admit that the "capability" probably exists for some commodities.

Article 406 defines market disruption as occurring when competitive imports "...are increasing rapidly, either absolutely or relatively, so as to be a significant cause of material injury, or threat thereof..." This is a tougher standard for the exporter and therefore more protective of domestic industry than that presented by the general escape clause (arts. 201-203) which grants import relief where there is a "...substantial cause of serious injury, or threat thereof..." This is because "substantial" is defined in this context as "not less than any other cause" and is, therefore, stronger than "significant", and "serious" appears stronger than "material." Art. 406 is tougher than Art. 201 in one other respect: the law provides for faster action. The remedies under the two articles are identical: imposition of a tariff, duty, quantitative restriction, the establishment of an orderly marketing agreement, or some combination of these. Article 406, unlike art. 201, provides no adjustment assistance to injured domestic enterprises or workers.

¹For a theoretical analysis of VERs, see Bhagwati, 1977. For facts on the extent to which VERs have been applied in various industries to CPEs, as well as Western nations, see Taylor and Lamb, 1979. The most recent attempt to control CPE exports to this country were the negotiations over Chinese textile exports to the United States in the discussions with China in May 1979 with regard to a trade agreement. These negotiations failed to result in an agreement (IHT, 6/1/79).

²Cited by Taylor-Posthelsinki, p. 1170.

The first case under Article 406 was not brought until Dec. 15, 1977; it was decided on March 15, 1978. This case was filed by the Work Gloves Manufacturers' Association against the import of work gloves from the Peoples Republic of China (PRC). The second case related to the import of clothespins from the PRC, Poland, and Romania.

The work gloves case was decided against the domestic producers. The International Trade Commission (ITC) concluded on a 4-2 vote that (1) the domestic industry had not been injured and (2) even if it had been, it was not evident that imports from PRC were the cause.¹ The one thing that this decision clarified was that "material injury" had to be more than a purely marginal amount--how much, one could not say until there was a positive decision in a case (*ibid.*).

Such a decision was made in the clothespins case. The International Trade Commission decided that Chinese clothespins were causing market disruption and recommended unanimously that quotas be applied to Chinese exports of these products to the United States. This decision was based on the fact that between 1976 and 1977, Chinese exports of clothespins to the US had doubled both absolutely and as a percentage of US consumption (now 12%). Furthermore, the prices of Chinese clothespins were little more than half the US domestic price thereby causing domestic producers' prices to fall and sharply reducing profits. The ITC did not find market disruption in the cases of Poland and Romania whose exports were much smaller and not increasing rapidly (USITC, 1978). The President did not go along with the ITC's recommendation of a quota on Chinese clothespins partly on political grounds--that it was not in the "national interest"--and because any reduction in Chinese exports would be quickly substituted for by imports from other nations. Whether or not the Congress would have reversed the President, we will never know because in December, 1978, the ITC determined under the general escape clause (art. 201) that imports in general were hurting the industry. They recommended a global quota which the President accepted in February, 1979.

The third case under Art. 406 was initiated in July, 1979 by 13 nitrogen producers alleging that Occidental Petroleum's imports of anhydrous ammonia from the USSR were disruptive. These imports are part of Occidental Petroleum's 20 year-\$20 billion contract with the USSR. It was alleged that the very large quantities of imported ammonia were flooding the market-and at very low prices. These allegations were denied. The ITC decided 3-2 that disruption had occurred and recommended a 5-year quota on imports from the USSR. On Dec. 11, 1979, the President ruled against a quota but requested the ITC to monitor the situation carefully in the near future, for signs of distress in the industry. The President's decision was considered very controversial and pressures began to build up for a Congressional reversal. The Soviet invasion of Afghanistan changed the whole context of the decision, of course. As noted in Chapter I, the President reversed himself on Jan. 18, 1980 and set a quota which limits imports of Soviet ammonia in 1980 to one million short tons, roughly two-thirds of the expected imports in that year. This constitutes, in effect, the first sanction imposed under art. 406.

The importance of this sanction lies not in the sanction, per se, but in the fact that this particular sanction partially invalidates the huge 2-way contract between Occidental and the USSR. This is, no doubt, the reason why the

¹Taylor, 1978.

President ruled against the ITC in the first instance, As we noted in Chapter V, compensation agreements of this sort play a fairly important role in East-West trade particularly in light of the large hard currency deficits of the Eastern nations. Should market disruption be invoked in other compensation agreements, or should other protective devices be applied against such Eastern exports, then one might expect this device to fade in importance as a source of supplemental finance.

It is a little curious that it took more than 3 years for domestic industry to begin to be substituted more widely for anti-dumping action. In fact, this was one of the reasons why Article 406 was passed. Discussions surrounding the adoption of this Article make it clear that difficulties (noted above) in applying anti-dumping legislation to non-market economies led the Congress to seek an alternative form of import relief.

Article 406 has advantages and disadvantages for domestic industry vis-à-vis the anti-dumping action. The advantages are that it is (1) faster and (2) does not require complicated calculations to assess "fair value." The speed of the market disruption procedure is an advantage for the communist nations as well since they are not left dangling for long periods of time while the pricing technicalities are ironed out. How domestic industry will eventually feel about the alternative approaches may well depend on which of the two applies a stricter standard for relief. Under anti-dumping, relief only requires a show of "injury" whereas under Article 406, the standard is "material injury"--which may be interpreted as somewhat stronger and more difficult to prove. On the other hand, of course, anti-dumping does require domestic industry to prove "unfair" competition as well as injury--an additional hurdle.

There is another important difference between market disruption and anti-dumping which is often stressed. The anti-dumping law is more narrowly legalistic, judicial, and regulatory as opposed to Article 406 (and 201) which is more discretionary, negotiable, and in views of some--political. That is to say, if, in response to an anti-dumping petition, the US Treasury decides price is below fair value and the International Trade Commission determines injury, then anti-dumping duties are automatically levied. On the other hand, if the ITC and the President determine injury under Article 406, and if the implementation of Articles 201-203 is any guide, there are likely to be negotiations with the foreign exporter and an arrangement arrived at which, while it gives relief to the domestic industry, also provides the foreign ex-orter with a chance to make the most satisfactory of several possible adjustments.

Potential Market Disruption

The historical survey of dumping and market disruption legislation and cases has demonstrated that, until 1979, the United States economy has not had much need for recourse to protection against exports by Eastern Europe and, particularly, against Soviet exports. While it is impossible to predict what the future has in store, some attempt has been made to do so by carefully examining past trends (Taylor and Lamb, 1979). On the basis of the experiences between 1973 and 1976 of all the major industrialized Western nations (IW) with imports from all of the CPEs, the authors have picked out sectors (at the 2 digit level) which they consider highly sensitive to imports and others which they consider moderately or potentially sensitive. These sectors are then examined to see if exports to IW have increased significantly over the years 1973-1976. Four sectors were judged highly sensitive; these sectors and the percentage that CPE exports

are of world exports to IW in 1973 and 1976 are presented below (Taylor and Lamb, p. 132):

	<u>1973</u>	<u>1977</u>
textile yarn and fabric products	3.7	4.2
iron and steel products	4.1	3.6
clothing	7.7	7.3
footwear	5.1	5.3
Total	4.9	5

Clearly, the CPEs have not been making inroads in these sectors. Significantly, Soviet exports were just a tiny fraction of CPE exports of these products. Eight sectors were judged moderately sensitive (Ibid.):

	<u>1973</u>	<u>1977</u>
textile fibers	9.1	11.6
chemical elements and compounds	3.5	5.1
manufactured fertilizer	9.1	6.9
plastic materials	0.7	0.1
chemical materials, not elsewhere specified	3.3	2.1
manufactures of metal, not elsewhere specified	1.8	1.7
electrical equipment and electronic products	1.6	1.3
transport equipment	1.3	1.1
Total	2.3	2.3

These sectors, in the aggregate, show no change; however, the important textile fiber category does record a 2.5 percent increase. The USSR, largely as a result of its much greater size and total trading capacity, was the leading CPE exporter of the first three commodity groups and second to Poland in the last. The sum of Soviet exports in the moderately sensitive groups probably amounted to about \$3/4 billion in 1977.

As a percentage of total Soviet exports, Soviet exports in these two sets of groups were smallest, by a large margin, of all the CPEs. For example, over the 1973-6 1973-76 period, Soviet exports in the highly and moderately sensitive groups, respectively, were 2 and 11 percent of total Soviet exports. Comparable unweighted averages for the other CMEA nations were 20 and 14 percents, respectively.¹

If the above analysis is correct, then one must conclude that the CPEs have not been increasing their market shares of sensitive items and that the USSR, in particular and despite the absolute size of its foreign trade sector, has not shown itself to be much of a market threat in sensitive sectors.

Final Remarks

Systemic differences have created difficult problems for US and other Western policy makers in their commercial dealings with the centrally planned economies. These problems have been multiplied by the more than usual number of political issues which have muddied the waters.

¹Taylor and Lamb, Fig. 2.

The issue on which the United States has the worst record, in my opinion, is MFN. By refusing to grant MFN to the Soviet Union and to most other communist nations, we have differentiated our policy from that of all other advanced industrial nations and from the policy of GATT to the principles of which we are committed to conform. As noted above, MFN is not a policy which represents a favor that nations bestow on each other--it is a device to multi-laterally reduce trade barriers in the world. While it is true that reciprocation of MFN by a centrally planned economy presents systemic problems, that largely is not the reason why we have withheld MFN. Our motives have been political reflecting both internal and external politics. Strangely, as we have just shown, the impact of MFN, or its denial in the case of the USSR is apt to be very minor because of the kinds of products it exports to the US. And the Russians undoubtedly realize this. To them, the significance of denial of MFN must be much more political than economic. It was indeed the archaic policy in the period of detente. Further thoughts on this, particularly the tying of MFN to emigration policy, are discussed in Chapter X and, therefore, will not be dealt with here. On questions of dumping and market disruption, the United States is much closer to other advanced industrial nations in its treatment of the communist nations. Despite the publicity these problems receive and the fears of some businessmen and legislators that we may one day be inundated with cheap communist products, so far there has been no objective indication that there is any danger that this will materialize in the near future. In fact, all indicators point in the opposite direction. So far, there have been very few cases of dumping or market disruption brought against communist nations.¹ This is due to a number of factors including: their lack of inclination to dump or disrupt markets; their weaknesses as competitors in capitalist markets; the relatively low level of East-West trade; and to the fact that with the exception of Poland, and very recently Romania and Hungary, the CPEs have been denied MFN and have had many of their products kept out of our markets by the very high 1930 Smoot-Hawley tariff. If and when these conditions change, the number of dumping and market disruption cases brought against the communist countries may increase.

From a Western standpoint which emphasizes free trade, the gains from trade, and the rules of the game, anti-dumping legislation is to be preferred to escape clauses as a remedial device. The reason is that the emphasis of anti-dumping legislation is fair competition, and this is consistent with these objectives. Escape clauses, on the other hand, are purely protective devices like tariffs which subordinate the gains from international trade to the interests of special, and often inefficient domestic producers. Unfortunately, as we have seen, it is very difficult to bridge the systemic gap by anti-dumping legislation and it may be that market disruption is the better route in the case of the non-market nations. Time will tell whether the third country and constructed value approaches are going to work satisfactorily.

If we shift from anti-dumping to market disruption for the communist nations, however, there would seem to be no good reason to treat them differently from other nations--that is to say, to discriminate against them. In the work glove case, imports from the PRC were less than one-fifth of our imports and only 4% of

¹In the 15 months ending March 1978, out of 162 escape clause, antidumping, countervailing duty, and market disruption cases, only 3 involved communist countries. (Cf. Taylor and Lamb, 1979). Further, these 3 cases are the only ones out of literally thousands and thousands of imports from communist nations each year.

US consumption. If an escape clause had to be used, it should have been applied via Article 201 against all foreign exporters, not just against China. In my opinion, Article 406 should be rescinded.¹

The communist nations, including the USSR, view the anti-dumping and market disruption regulation, not to mention lack of MFN, as a considerable hazard in trading with the United States. They have enough difficulty penetrating our markets with their products without running the additional risks of being accused of dumping or market disruption--as happened with Polish golf carts. The fact of the matter is, however, that there have been very few instances of alleged dumping or market disruption. Further, the CPEs appear to have been treated fairly--having won many more cases than they've lost. For the most part, they simply aren't a large enough part of the market to cause trouble.

This could of course, change should East-West trade expand substantially. Rather than anti-dumping or market disruption proceedings, the major artificial impediment to Soviet and East European exports of manufactured goods to the United States in the near future may very well be voluntary export restraints. Unwillingness of China to voluntarily limit exports of textile products to the United States to the extent desired by the United States led to a breakdown in negotiations (IHT, May 29 and June 1, 1979). Should the United States experience more unemployment and reduced business activity, one might expect a further expansion of the use of VERs. This could have unfortunate consequences for Soviet and other Eastern European exports to the United States, although the USSR is likely to be less affected than the other Eastern nations because of the low concentration of its exports in import-sensitive industries.

Finally, it is worth noting that with the exception of MFN and the fact that Article 406 is somewhat stricter than Article 201 of the 1974 Trade Act, the problems which the Eastern nations face are no different from those faced by Western nations. They are not discriminated against by American legislation or by use of VERs. And, in fact, the new regulations regarding dumping represent a special attempt by the US Government to bridge a systemic gap and accord fair treatment to the communist nations.

¹The legislation discussed above does not exhaust the possible potential ways in which the US Government can stop communist exports from entering the country. For example, Section 337 of the Tariff Act (amended by Art. 341 of the Trade Act of 1974) prohibits unfair trade practices in the import trade and is designed as an anti-trust device. So far, Sect. 337 has been used almost exclusively for infringement of patents and trademarks. Article 301 of the Trade Act of 1974 provides further potential for intervention. Article 301 is designed to help US exporters who are being hurt by foreign unfair trade practices. In the event of such unfair trade practices, the President is authorized to take various kinds of retaliatory measures such as suspending trade agreement concessions or imposing import duties or restrictions. It is not hard to imagine the possibility of complaints by American exporters against Soviet import-monopoly practices and under these circumstances, Article 301 might well be activated.

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Chapter IX The US-USSR Grains Agreement (1976) and other Commodity Agreements

Prices of primary commodities are notoriously unstable. Small fluctuations in demand supply, or both can often cause large changes in prices. Changes in prices can have a significant impact on the economies of the producing nations particularly since relatively small and poor nations are often major exporters of primary products and their earnings from such exports constitute a sizeable proportion of both their GNPs and earnings of foreign exchange.¹ Moreover, erratic changes in prices as have been experienced in many commodity markets often subsequently lead to uneconomic and ill-advised expansion or contraction of output.

The US and USSR are major transactors in world commodity markets, both as exporters and importers. Both play large roles, for example, in the grain, petroleum, sugar, tin, natural rubber, and many other markets. This is the case, despite the fact that, with the exception of grain and petroleum, primary products are not too important to either the foreign trade or the GNPs of these nations. Nevertheless, because of their importance in commodity markets, it behooves them as members of the world community to participate, wherever relevant, in international efforts to stabilize these markets.²

Stabilization has typically meant price stabilization, although, at times, it has also meant stabilization of the earnings of exporters. The major device for reducing price fluctuations has been the development of buffer stocks in the context of international commodity agreements which include the major producing nations, sometimes major consumers as well. When prices rise above a certain agreed-upon level, the market supply is increased by sales from the buffer stock, thereby stabilizing the price; should prices fall below a certain level, purchases would be made and added to the buffer stock. Should the financial resources of the members approach exhaustion when prices are falling, resort may be had to (lowering) export quotas. This technique is usually not very effective against rising prices, since export quotas are typically quickly eliminated under such conditions.

While in theory, the operation of buffer stocks appears very straight-forward, in practice this is not always the case. Some products are perishable and buffer stocks impractical (e.g., rice); in other cases, costs of storage are too high to make the operation feasible. There are also problems regarding: the differentiation between short- and long-run trends in prices; how large a buffer stock is required to stabilize prices; and conflicts of interest of various sorts between the participating nations.

¹For example, in the mid-1970s, commodity exports (excl. petroleum) amounted to about 2/3's of the foreign exchange earnings of more than 50 nations; and export earnings in turn constituted from 20-40% of GNP of 52 nations (McNicol, pp. 16-17).

²As a result of pressures emanating out of UNCTAD IV in May, 1976, the UN has been attempting to deal in a comprehensive way with primary commodity problems. Meetings are currently being held to establish a so-called Integrated Program for Commodities, which includes 18 primary commodities.

The United States is a member of several international commodity agreements. We have been a member of the various International Tin Agreements for a long time. Our membership is based on the fact that we are the leading consumer of tin and on our desire to be able to influence the international Tin Council's policies regarding the long-run supply of tin (Katz, pp. 3-4). As the world's largest wheat exporter, we have been involved in the various International Wheat Agreements. Our dominant position in world grain trade has been fairly costly because American farmers have had to adjust their production to changes in world demand and we have also held most of the world's wheat reserve stock. At present, we are interested in coordinating our efforts along these lines with other nations, thereby sharing the costs and responsibilities. We are active in two other commodity agreements as a consumer--coffee and rubber; and still two others as, producers and consumers--copper and sugar.

The USSR has naturally been much less involved in international commodity agreements than the US. This is a result of the fact that the preponderance of its trade in raw materials has been with other Eastern nations, and it does not want that trade included in Western commodity agreements. On the other hand, it has a motivation to join these commodity agreements in which it engages in substantial trade with the West because, as noted earlier (Chapter III), planners have a strong preference for stable prices and predictable trade patterns.

In 1958, the USSR created its first postwar stir in world commodity markets by disrupting the International Tin Agreement (ITA). Apparently the USSR was overloaded with tin imported from China. Tin was one of the few things China had available for export to finance its large import surplus from the USSR. In an effort to market the tin (and the same was true in 1959 of aluminum), the Soviets put their supply for sale at below going world prices. At that very time, the tin price had been falling and the Tin Council was actively purchasing for stockpile in order to support the price. The Soviet action more or less broke the bank of the ITA, at which point, as a defense of last resort, the Tin Council established import quotas on Soviet tin for its consumer members.¹

The USSR is also a major factor in the sugar market. While, at one time, they were almost exclusively importers, since they have been taking most of the Cuban crop, they have become exporters as well. In years, when they contract to import more than enough to fulfill domestic requirements (along with their own crop), they often re-export all or part of the surplus to the West. Because of their involvement in the sugar market, they participated in the UN Sugar Conference in 1977 and were signatory to the resulting International Sugar Agreement of Jan. 1, 1978. As an importer, the USSR should have been fairly limited in the amounts it would be allowed to export. However, the Soviet delegation fought for and won for the USSR the right to have its quota based on its exports to the West since it had proved, over a long period of years, to have been a consistent exporter in non-bloc markets (V. Polezhayev, 1978).

Perhaps the first commodity agreement joined by the USSR was the 1962 International Wheat Agreement. At the time the USSR had been, for roughly 100 years, an exporter in world grain markets and it was as an exporter that it joined the IWA. As is well known, within a year of joining, Soviet status changed and it became the largest single importer of grain in the world. At present, the USSR is a

¹It is only fair to point out that from the Soviet point of view, the tin and aluminum markets were effectively cartelized and, in order to get a share of these markets, they had to sell at below the world price.

member of the International Wheat Council and was joined with in 1978-79 by other large grain trading nations in unsuccessful negotiations to replace the 1971 agreement which expired in June 1978. Under present conditions, a wholehearted Soviet involvement would seem to be an important prerequisite to a successful agreement if the Soviet Union continues to trade freely in grains with the West, especially with the United States. In order to understand better the nature of the problem, it is worth sketching briefly (1) some of the factors affecting Soviet agriculture and the resultant impact on the world grain market and (2) the so-called "grain robbery" of 1972* and subsequent "Grain Agreement" between the US and USSR in 1976.

As noted above, the USSR had always been a grain exporter until 1963.¹ This did not mean that the USSR always produced enough grain to feed its population and livestock, but rather that Stalin made it a point to export grain in order to earn hard currency, even if it meant that the population sometimes had to go hungry. Khrushchev treated the consumer in a much less Spartan fashion and, in face of the very poor harvest of 1963/64, purchased close to 10 million tons of grain from the West. Imports were resorted to again in 1965/66 and in 1971/72, but on a somewhat smaller scale. Output declined very substantially below trend in 1972/73, and in that year and the succeeding year, the USSR imported about 32 million tons of grain of which two-thirds came from the United States.² These imports were dubbed the "great grain robbery." Strangely enough, the amount of these imports exceeded the shortfall below trend of Soviet grain output, suggesting a greater concern than ever before with the consumer. Finally, in 1975, the USSR experienced one of its worst shortfalls in history, with output down by about one-third. This led to the largest imports in history which were, however, in contrast with 1972/73, much less than the shortfall. It is not clear exactly why imports were so much less than the shortfall, but it could have been due to either intensification of the hard currency (shortage) or to lack of dock and transport facilities for handling such an enormous volume of grain imports.

The picture revealed above is one in which the USSR has changed from being (1) a net exporter every year to (2) occasionally shifting to a net importer to (3) the present status in which, over the past few years, net imports have been the rule with only occasional net exports. As we saw in Chapter IV, according to some predictions, net imports are likely to be the rule in the future. Whether a net exporter or importer, Soviet trade in grain has been, and now is, characterized by great variability, greater variability than exhibited by most other nations. All nations experience crop variability, of course, and much of this is due to variability in climate. The variability in climate and in crops had much less of an impact on trade in Stalin's time, even in Khrushchev's time, than at present because a much greater percentage of the crop fluctuations were reflected in domestic consumption. Over the past 10 years this has not been the case.

Because of "consumerism," all the Eastern nations, including the USSR, try to maintain food and meat consumption relatively stable in the face of shortfalls. Since the USSR is a net grain exporter to Eastern Europe, it is faced with having to offset almost the full extent of shortages in the whole Bloc by imports from the

*Discussed in Chapter VIII, p. 58 (bottom) 59

¹Much of what follows in this paragraph is conveniently laid out in Johnson, 1977.

²Bresnick and Hardt, p. 244.

West. The situation is exacerbated by the fact that prices of foods are kept stable despite shortages (or surpluses), thereby not taking advantage of the price mechanism to reduce (increase) purchases with changes in supply. A final factor serving to magnify the impact of crop variability on foreign trade is the fact that the USSR does not maintain adequate reserves of grain to cushion itself against changes in output (Johnson, Chapter II).

The impact of the Soviet shortfall in grain output in 1972/73 fell very heavily on US exporters. It was fairly clear in early 1972 that the harsh winter would probably bring Soviet purchasing agents to our shores later in the year. In late June, they arrived and, before they were finished some few months later, they had bought 12 million metric tons of wheat (1/4 of the US crop), 6 million tons of feed grain and 1 million tons of soybeans (Bresnick and Hardt, 240). Each of the six largest US grain exporting companies was approached separately and secretly by the Soviet purchasing agents so that, until the total amount was bought, none of the companies knew the extent of the total purchase. As a partial consequence of this, the Soviets made their purchases from each company at roughly the same price when, under ordinary conditions, one would have expected prices to rise sharply from such a large and sudden increase in demand. Prices did rise after the sales had been concluded, and contributed to the rising cost of living in the United States. It was widely felt that the Russians had pulled a fast one and that (1) they should have had to pay higher prices and (2) they should not have been able to buy so much as to cause an increase in the US inflation. This is why various invidious terms, such as the "great grain robbery", are used to describe the sale.

In fact, it seems clear from the secret manner in which the Russian group carried out its purchases that it was avoiding publicity in order to reduce or delay the impact on prices until purchases had been completed. This would be the normal operating procedure of any large purchaser on capitalist markets.¹ That they were so successful is due to several extraordinary factors, none of which were subject to their control. In fact, it is hard to believe that the Russians could have gone into this series of transactions with the belief that they would accomplish the total purchase without having to pay much higher prices before they were through.

The subsidies to the grain dealers were, of course, an instrument of the policy referred to by the Comptroller General; that is to say, the subsidies were designed, in part, to keep US prices of grain products low in order to encourage sales especially in foreign markets. This policy, and the way it was administered, was, to a considerable extent, responsible for the failure of the Soviet purchases to be reflected in higher prices. It was pretty clear, after the fact, that the USSR would probably have bought almost as much grain as it did even if prices hadn't been subsidized.

The subsidies kept prices from rising immediately by insulating the futures market from the shift in demand. That is to say, each grain dealer, upon receiving an order from the Soviet purchasing agents, claimed that it called the Department of Agriculture (DA) to ask if the subsidies were still in effect. According to the dealers, DA said that they were in effect.

This relieved the grain dealers from having to go into the market immediately in order to purchase grain for future delivery--since they knew that with the

¹In CPE markets, of course, shifts in supply and demand would not lead to short-run changes in price.

subsidy their costs would be fixed at the subsidized price of approximately \$1.65 a bushel. Had the subsidy program not been in effect, the first dealer would have gone immediately into the futures market, causing prices to rise; the same with each subsequent dealer.

Presumably, these calls from the dealers should have alerted the DA to the magnitude of the Russian purchases and led to a quick reconsideration of the subsidy program, which was under reconsideration in any case. The DA, however, denied that it had been consulted by the large grain dealers or that they had advance knowledge of the Soviet purchases. Whether the dealers or the DA, was telling the truth was never settled.¹ Whether or not the DA was telling the truth, it seems clear that its dominant concern was the historic one of exporting surplus US stocks.²

Several other extenuating circumstances should be mentioned. First, there is no question but that the Soviet purchases marked the beginning of a very rapid round of food price increases in the United States. This coincidence is responsible for much of the resentment stirred up by the Soviet purchases. But, to infer causation from this coincidence is to overlook several other factors which contributed more to the price increases than the 1972 sales to the USSR. For one thing, Japan and Western Europe bought a larger share of US exports in 1972 than the USSR and, in that sense, can be viewed just as, if not more, responsible for the price increases. Further, grain prices continued to rise by large amounts in 1973/74 and again in 1974/75 after Soviet purchases had declined sharply and eventually ceased (Johnson, p. 23). This suggests other factors than Soviet purchases were the major causes of the food price inflation. Some of these other factors were: the sharp drop in output of Peruvian fish meal; shortfalls in the output of grains, rice and peanuts in other parts of the world due to bad weather; a poor US harvest in the fall of 1972; the decline in the value of the dollar, which increased the demand for US products; and so forth (Luttrell, p. 5).³

Our view of the impact of Soviet grain trade based on events of 1972/73 has also to be tempered, according to Johnson (pp. 22-25), by the events of 1975/76. Soviet purchases from the US in 1975 were approximately 25 million tons, or 5 million more than in 1972. Despite these enormous purchases, grain prices declined slightly between 1975 and 1976. In fact, it can be argued that the Soviet purchases tended to stabilize grain prices, which, otherwise, would have fallen by still more than they did. Why the difference between the two periods? In the earlier period, a whole constellation of forces (above) acted to push prices up. In contrast, in 1975, grain stocks were much higher than in 1972 and, for reasons which need not concern us here, US and Canadian domestic grain use was more than 60 million tons below trend. Further, the 1975 US crop was a bumper crop (Bresnick and Hardt, p. 241). This combination of factors tended to depress the grain market into which the Soviet purchasing agents stepped. In fact, the Soviets paid

¹Russian Grain Transactions, Chapter V.

²The Comptroller General study of the "grain robbery" concluded that the DA was well aware of the strong US position in the grain market.

³Johnson (p. 26) attempts to test whether the Soviets actually bought US grain at below what should have been the market price by comparing US and Canadian sale prices. He found that Canadian prices to the USSR were somewhat higher than American. However, he could not deduce much from this because Canadian wheat is higher protein than American and because he could not identify the types of feed grains sold by Canada.

a higher price for their grain than if they had either bought less, or held off buying for a buying for awhile. A lesson to be drawn from these two experiences is that the reaction of many to the earlier sale that Russian grain purchases is "all bad" is a little hasty. To the extent that overproduction, however defined, may still occur, sales to the USSR can be of great value.

When the USSR came into the American market in 1975, a considerable stir was created because of the memories of 1972/73. In August, Secretary of Agriculture, Earl Butz, asked US grain exporters to withhold further sales to the USSR until the price implications of such sales could be determined. At roughly the same time, the US longshoremen boycotted ships loading grain for the USSR. On Sept. 9, President Ford extended the moratorium on sales until mid-October while announcing that he would seek a long-term grain trade agreement with the USSR (Bresnick and Hardt, 241-242). The Agreement to was signed in October and was to be operative from 1976 through 1981. The Agreement commits the Soviets to purchase annually 6 million metric tons of US grain, half wheat - half corn, with the option to buy another 2 million tons without consultation when the American crop is adequate (over 225 million tons). Purchases in excess of 8 million tons in a year require inter-Government consultations. The USSR agrees not to re-export US wheat and corn accord with the 1972 Maritime Agreement, one-third of the grain is to be shipped in US vessels at high US freight rates.

What beneficial effects will the Grain Agreement have? It could have several mildly stabilizing effects. First, it could prevent inflationary purchases of grain in the US market of the sort that many (perhaps mistakenly) felt occurred in 1972/73. The US Government certainly has the tools to make sure that the USSR doesn't import more than 6 million tons under very short-supply conditions. Second, since the USSR can no longer be sure of tapping the US grain market for unlimited amounts of grain in times of very bad crops, it "might"--but might not--have an incentive to develop additional storage capacity.¹

Having suggested some favorable possibilities stemming out of the Agreement, we must now indicate that, while the Agreement alleviates some of the US problems, it might not, in fact, change the world--or even the US--grain pictures, very much. The major difficulties with the Agreement stem from the facts that it is a bilateral, not multilateral, arrangement, and that there is no guarantee that the USSR will develop an adequate storage capacity, adequate in terms of that nation's very large consumption of grain and great variability of output and trade. Because the Agreement does not include other large producers and consumers, as an International Wheat Agreement would and should, the interests of the USSR, and to some extent of the US, are protected but not those of other nations. Failure of the Soviets to develop adequate storage capacity could further bias the gains of the Agreement in favor of the USSR. This may be demonstrated by examining alternative scenarios (Fried, 1975).

Suppose, first, that a surplus of grain output develops temporarily. This would tend to drive down prices which would be, in terms of our problem, destabilizing. Further, since the United States is the major exporter in the world, there would be there would be a tendency, judging from past experience, for US acreage under grain to be reduced. This would be, in itself, an unfortunate development because when the next shortage occurs, considerable hunger may result in third nations before acreage is increased again. Finally, to the extent that surpluses remain unsold, the US would be forced to bear the costs of

¹Johnson, p. 31, says there is some evidence that additional storage capacity is being developed.

storage. Suppose now, under these conditions, that the USSR is prepared to stockpile grain. It could put its surplus in storage and, if it had enough storage capacity, could buy grain on the world market, thereby helping stabilize the market. This would ameliorate all of the adverse impacts of the surplus just mentioned. Suppose, on the other hand, that the USSR had no commitments beyond those under the Grain Agreement and was not prepared to undertake any voluntarily. Under these circumstances, it would buy the minimum of 6 million tons required by the Grain Agreement and would then proceed to export its own surplus to third nations, thereby driving down the price still further and exacerbating all elements of the picture described above. Recall that the Agreement only precludes the USSR from re-exporting American grain.

Suppose, alternatively, that there is a shortage of grain. While in theory the USSR is restricted to 8, or under extremely unlikely circumstances, 6 million tons of American grain, it probably could expand its purchases in several ways. First, it might be able to negotiate more from the United States--or based on the Agreement, even get a priority on 6-8 million tons over other purchasers. Second, it could push Eastern Europe to buy elsewhere, as it did in 1972/73 and 1975/76, thereby saving itself from having to sell all of its traditional 5-6 million tons to fellow CMEA members. Finally, it could buy all it wanted, or was able to get, in third markets, possibly depriving poor LDCs of supplies essential for minimum necessary intake. All of these factors would aggravate world market conditions relative to a situation in which the USSR undertook serious storage policy.

Under existing conditions then, the USSR remains the most destabilizing element in the world grain market, fluctuating in its annual trade between exports of 5 and imports of 20 million tons. It uses the world market parasitically to iron out the fluctuations in its own output. It bears few of the costs of storage which a major consumer and supplier should and does usually bear in fair and rational international commodity agreements.

What are the costs of a proper storage program of the sort that might be negotiated under an adequate International Grain Agreement? It has been estimated by Philip Trezise of Brookings, (1976), that such a program should have buffer stocks of 30 million tons each of wheat and feed grains. The initial acquisition costs would have amounted in 1975 to some \$6 billion plus. Annually, there would be interest charges on the funds so tied up (which should be calculated in real terms). There would also be storage costs which were estimated, for 1975, at about \$7.50 a ton, or between 7 1/2 and 8 percent of the value of the stocks. Storage costs plus interest forgone was estimated at close to \$700 million annually. In addition, for the USSR, it would be necessary to add the costs of building additional storage capacity.

As a major beneficiary of a stable grain market, the USSR should be willing--should be forced--to incur its share of the above costs. If they are unwilling to bear their part of the burden, they should not be allowed to draw on available supplies until the needs of other members of the Agreement have been met. This would require coordination among the other members. To the extent that the USSR is allowed to draw relatively freely on exporters' surpluses in short supply years, they international raise the costs to others because it is the variability of Soviet supplies and lack of storage that makes larger reserves necessary and higher costs necessary to those who do the stockpiling. Under present conditions in the grain market and under the US-USSR Grain Agreement, the USSR is a free

rider. It should be required to pay its fare.¹ If it doesn't pay its fare and the other nations go ahead with an reserve system which excludes the USSR from priority access, that nation may find that it is more expensive to "insure" itself than pay the costs of being a responsible member of the International Wheat Agreement.

The International Monetary Fund (IMF)

Romania and Hungary have joined the IMF; other CMEA members, including the USSR, may apply for membership in the near future. Should the U.S. vote yes or no on future memberships, particularly that of the USSR?

It is of historical interest to note that the USSR was one of the founding nations of the IMF (and International Bank for Reconstruction and Development--IBRD) at the original Bretton Woods Conference in 1944. Russian representatives continued to be involved in discussions regarding the nature of the IMF as late as March, 1946.² In those early days, the USSR looked upon the IMF as having a "progressive and useful character." (Ibid.). Nevertheless, the Soviet Union did not join the IMF. Lavigne feels that this was the result of the rapidly changing political climate after World War II and the development of the cold war; I am inclined to agree with her.

This is not the reason given by Soviet spokesmen. Basically, they have argued that the IMF, like the GATT, is a tool of the advanced capitalist nations which dominate its policies to suit their own interests. Among their complaints have been the following:

1) The number of votes each country has is unequally distributed among the nations with the advanced Western industrial nations having by far the most. This enables them to control policy-making.³

2) Nations were required to report their foreign exchange and gold holdings and, further, to deposit a substantial part of their Fund quota in gold in IMF headquarters in the United States. The USSR still has not, since 1935, ever disclosed its gold or foreign exchange holdings and, right after World War II, was unwilling to part with any of their gold (to the IMF) because of their very great reconstruction needs.

3) Article VIII obliges Fund members not to limit in any way their foreign exchange payments and transfers on current international operations. This article is certainly inconsistent with the monetary institutions of centrally planned economies. Right after World War II, of course, most of the war-torn Western nations of Europe were also unable to meet their Article VIII obligations and were forced to invoke Article XIV, Section 2 which allows continuation of use of exchange controls. It is noteworthy that, as of 1976, 81 Fund members, mostly LDCs, were under the protection of Article XIV, 2, and only 44 had full convertibility (Wilczynski, p. 270). Nevertheless, it is a fact that the inadequacies

¹One final point, the dearth of information on Soviet output, projections of output, and reserves affects adversely the efficiency of the Western grain markets. If the USSR is to be accorded equal access to the market, it should be required to provide more information.

²Marie Lavigne, "Comments," in C. T. Saunders (ed.), Money and Finance in East and West, Vienna, 1978, pp. 124-5; and "The International Monetary Fund and the Soviet Union," in F. Levick (ed.) International Economics - Comparisons and Interdependences, Vienna 1978, pp. 367-82.

³In the original Bretton Woods Agreement, the U.S. had 28% of the vote whereas the USSR along with Poland, Czechoslovakia and Yugoslavia would have had 17%. Cf. J. Wilczynski, "Towards Trans--ideological Monetary Co-Operation", Banca Nazionale del Lavoro - quarterly Review, Sept. 1977, p. 262.

in this regard of capitalist countries may be viewed as non-systemic and, therefore, correctible, whereas those of the socialist nations appear to be systemic and perhaps uncorrectible. In counterargument, the examples of Yugoslavia, which has some real convertibility, and of Hungary, which may be close to convertibility, may be cited.

4) Conditional loans by the IMF to members with balance of payments problems had to be approved by a majority of the leading members of the Fund, approval involving the economic policies of the borrower and the purposes for which the credit was to be used.¹ From the standpoint of the CPEs (and especially of the USSR), this provision is an affront to their sovereignty, particularly since it involves capitalist nations judging and dictating economic policies to communist nations. Similar factors presumably led to the rejection of Marshall Plan assistance.

These 4 points basically add up to the fact that the USSR has viewed the IMF as a capitalist institution with capitalist standards and goals, an institution which views the problems of the CPEs with a jaundiced eye.² This was, in essence, the argument made by Poland when it resigned its membership in the Fund in 1950.³

As noted in the opening sentence, the situation has changed: Romania and Hungary have joined the IMF. Further, a vice-minister of Soviet foreign trade, in a 1973 interview, stated that Soviet participation in the Fund was a possibility, but indicated objections to the Fund weighted voting system and to member obligations to provide gold and balance of payments information.⁴ The USSR has also been reported to have put out feelers regarding joining.⁵

Why are the CPEs interested in joining the Fund and Bank now? Apparently, three sets of factors are responsible. First, the smaller CPEs, especially those with serious hard currency balance of payments problems, are eligible to receive hard currency credits from the IMF, the right to share in new issues of special drawing rights (SDRs), and are eligible for World Bank loans. This is strictly "manna from heaven" and certainly worth joining for. IMF credits and SDR allocations could total as much as \$5 1/2 billion for all the CMEA nations (Wilczynski, p. 270).⁵ Second, since East- West trade has developed in recent years to the extent that it now involves anywhere between 25 and 50 percent of the trade of the East (much less of the trade of Western nations), a degree of interdependence exists which makes the Eastern nations sensitive to economic perturbations arising in the West: inflation, changes in terms of trade, frequent

¹These 4 points are made by Boris S. Fomin, 'Monetary and Financial Aspects in East-West Cooperation,' in C. T. Saunders, 2p, cit., pp. 106-8.

²The one instance in which the IMF takes account of CPE trade institutions is Article IV, which permits a nation whose rate changes do not affect international transactions, to change that rate without IMF permission.

³Lavigne, p. 377

⁴Ibid.

⁵Wilczynski, Banca p. 270.

changes in or floating exchange rates, and economic recession.¹ Third, and related to the second, is the political factor: as a member of the IMF-IBRD, a CPE has a podium from which to express opinions and has more chance of affecting those organizations' decisions.

The first factor may be of some importance to the USSR, but certainly of less importance than to the smaller and poorer Eastern nations. The USSR, with its stronger balance of payments position, large supplies of gold and exportable energy, is much less likely to ask for, and get, help from the Bretton Woods organization.

Of the 4 sets of economic disturbances originating in the capitalist world, only frequent changes in exchange rates would be susceptible to CPE influence as members of the IMF. The CPEs are unalterably opposed to exchange rate changes and, in fact, most (but not all) Soviet economists believe that the world should return to fixed exchange rates.² Not only do they argue for fixed exchange rates, but argue for a return to fixed exchange rates which are based on gold rather, than on dollars or other reserve currencies or on SDRs. As a recent authoritative Soviet source put it:

"It is generally expected that the base unit of a monetary system must be something of intrinsic value, and a commodity which can be seen to be of real value by ordinary people.... Here gold surely provides the key. As a real store of value, with a supply that cannot increase in an inflationary manner by resort to the world's printing presses, it has no rival, even from possible synthetic competitors such as the SDRs" (quoted by Lavigne, p. 379).

Thus, we see that the CPEs have an interest in belonging to the IMF on financial grounds and because they do have some stake in the outcome of current discussions regarding the kind of international monetary order which should prevail in the capitalist world in the future. It is somewhat more difficult to understand why the IMF should be interested in admitting CPEs to membership. With the exception of Articles IV, 5e (see previous footnote) and Article XIV, 2--both exceptions to general rules--there is almost nothing in the goals of the IMF or mechanisms of the capitalist international monetary system which is intrinsically relevant to the CPEs, especially to the USSR. Basically, their relationship to the Western monetary system is parasitic. They use it in trade with the West and it provides them with the opportunity to conduct such trade multilaterally. They are even able to use Western hard currency to slightly multilateralize intracMEA trade. But they are not in a position, given the nature of central planning with direct controls, to aspire to any of the goals of the Western financial community or to subject themselves in an organic way to the disciplines of a world monetary mechanism. They are, in fact, nations without

¹Each of these factors complicate planning for trade, inflation can also be imported unless offset by undesirable subsidies or by changing the official exchange rate (used as a unit of account), changes in the terms of trade can cause unexpected gains or losses from trade, economic recession reduces hard currency earnings, and changes in Western exchange rates complicate portfolio management of reserves.

²It is a curiosum that Article IV, 5e of the IMF charter allows nations to change their exchange rates by more than 10 percent without Fund permission if such changes do not affect their international transactions--a condition that only applies to the CPEs (Lavigne, 125).

real international monetary systems. IntraCMEA trade is basically large-scale barter, currencies are completely inconvertible into other currencies as well as into commodities, exchange rates are not real prices and serve no real function, and prices in intrabloc trade are borrowed from the capitalist world. In East-West trade, the CPEs are like visitors from another planet: they use Western prices, exchange rates, and currencies, and none of these is organically related to their domestic economies. Further, their large and persistent deficits cannot be ameliorated by currency devaluation, the ultimate Western solution.

It might be argued that many Western nations have inconvertible currencies and avail themselves today of Article XIV, 2; and further, that Hungary has moved "halfway" toward convertibility and that the other Eastern nations may eventually follow suit. This is not a trivial argument. In reply, while it is true that many LDCs, in particular, have inconvertible currencies, the inconvertibility is due to the enormous stresses and strains under which they operate, rather than to systemic factors. In theory, without changing their systems, but by simply getting their balances of payments into equilibrium, they could achieve convertibility. It is significant that, while many capitalist LDCs have inconvertible currencies, some do not. Inconvertibility stems simply from disequilibrium in the international accounts. And, it should be noted, no capitalist nations need or can invoke Article IV, 5e.

Centrally planned economies with direct controls, on the other hand, can never aspire to convertibility. Yugoslavia has given up central planning and has a socialist market economy. Hungary has reduced its reliance on direct controls, but is still not a totally decentralized market economy. It is instructive to ask: why not? Aside from political constraints which stem from membership in CMEA and the Warsaw Pact, moving to a decentralized market economy necessary for convertibility would lead to conflicts between international trade and the economic goals of the society. Three major goals of all of the socialist nations are price stability, job stability, and full employment. Given the degree of market and decentralized economic activity required for convertibility, it would be much more difficult to insulate the economy from world inflation. Further, it would be impossible to guarantee job stability (not to mention the viability of state enterprises), without introducing quantitative controls (quotas) or tariffs every time the market of a domestic enterprise were threatened by imports; or granting subsidies every time the export market of a domestic enterprise were endangered. Unwillingness to compromise on the domestic goals we have been discussing is a major economic factor inhibiting the Hungarians from taking the steps required to become a full-fledged market economy, the prerequisite for currency convertibility.

If the Hungarian economy finds it difficult to introduce substantial enough internal economic reforms to achieve convertibility, etc., then, by this token, the USSR would find it even more difficult on economic, not to mention political, grounds. Soviet reforms have always been very conservative and have been designed to make central planning work better, rather than to decentralize the economy. Further, the Hungarians and many other Eastern nations have a greater motivation to reform in that their economies depend much more heavily, than the Soviet economy does, on foreign trade. It seems highly unlikely, in the foreseeable future, that the USSR will undertake radical enough reforms to form a basis for a real international monetary system.

Another set of factors on which several commentators have based the case for Fund membership for socialist countries, or some equivalent relationship,

has been the growing interlocking relationships between the socialist and Western banking institutions and communities. The two CMEA banks, IBEC and IIB, and the national foreign trade banks of the individual CMEA nations mostly have had dealings with capitalist banks and have branches in many Western nations. These banks borrow money in Western markets, lend money, accept deposits, jointly float loans and sponsor investment projects with capitalist banks, and so forth. On the other hand, leading Western banks not only are the other side of the coin in the aforementioned activities, but have branches in the Eastern capitals as well. There is a difference, however, between Western banks in CMEA countries and Eastern banks in the West. The latter operate like Western banks—in fact, they are in all essentially Western banks except in ownership. On the other hand, Western banks in Eastern nations handle only business relating to trade and credits: they do not accept local deposits, make local loans, or engage in any of the other normal activities of banks. They are simply special branches of Western banks set up to facilitate trade and investment in the host country.¹ This is to be expected. It is the counterpart of the fact that the East uses Western prices and currencies but the West doesn't use Eastern prices or currencies; or more generally, of the facts that the Eastern nations are centrally planned whereas the Western nations are free market--free to everyone.

Some have proposed that interdependence between East and West might be increased and trade and investment facilitated if IBEC and some other Eastern banks had an affiliation with the IMF and the IIB a similar affiliation or perhaps an affiliation with the IBRD. Since formal ties of this nature with the IMF-IBRD are not maintained by any Western banks, national or international, there would appear to be no precedent for the above proposal. In fact, interdependence is clearly proceeding apace without any such affiliations. The extensive activities in Western currencies of socialist banks and the huge approximately \$50 billion debt incurred as of end-1977 attests to this fact. A very large part of these activities is purely private and both non-governmental and non-international organizational in nature. Further, affiliations as proposed above would contribute nothing to the more profound problems impeding interdependence--like inconvertibility. This problem has been side-stepped by using Western currencies, by joint production (and the like) agreements, by counterpurchase agreements, and so forth.

If there is to be an affiliation of some sort on financial matters between East and West, this role might well be filled by the Bank for International Settlements and/or the Economic Commission for Europe. East-West financial relations are, in fact, recorded in the publications of the former, and policies are discussed in forums conducted by both institutions. It is not clear what more, if anything, is needed.

To raise again the question of Soviet (and other CPE) membership in the IMF, it is worth noting that such memberships would introduce a relatively retrogressive viewpoint into current discussions regarding the reform of the international monetary mechanism. The basic thrust of reform, so far, has been away from the rigidities of the Bretton Woods system and toward a more flexible market-oriented system. For example, the present tendency is to scrap fixed exchange rates in favor of floating rates, albeit under IMF surveillance; away from gold and toward a managed paper currency (SDRs) based on the values of

¹Cf. J. Wilczynski, Comparative Monetary Economics, New York, 1978 (Oxford Press), pp. 42-46.

the major national currencies, and to not fix the price of gold. These proposals are designed to meet the needs of the capitalist trading world, and most economists would argue that they make sense, although they may not be successful in totally eliminating chaos from the international monetary scene.

The Soviet Union opposes all of these proposals. As noted already, frequent changes in exchange rates create portfolio and pricing problems for Soviet foreign trade planners. However, these problems must be viewed as a second-order of magnitude in comparison with the kinds of problems which floating rates are designed to ameliorate in Western trade. As for gold, the Soviets are as dedicated to its role as a cornerstone of the monetary system as Charles DeGaulle was. This is a little strange in view of the ideological bias against gold in early communist writings. Lenin himself said, in 1921, that when socialism finally takes over in the world, gold will be used to build public lavatories in the streets.¹ In more recent times, however, the Soviets have legally tied the ruble, both internally as backing for paper currency, and externally as a basis of value, to gold. In neither case, however, is the tie anything more than a legal fiction. There is no evidence that the number of banknotes printed is in fact limited by gold cover; and as we have shown earlier, the external ruble has no real value. At present, the major factor behind Soviet enthusiasm for gold may well be its vested interest as a major producer and hoarder of the yellow metal. Whether the Soviets still hold to some mythology about gold or are interested in it for its asset value to them, neither factor is relevant to the current discussions regarding the future of the world monetary mechanism.

The preceding discussion leads us to conclude that Soviet (CPE) membership in the IMF would complicate the decision-making process without adding a useful viewpoint.

Despite these cautions regarding the relative undesirability on economic grounds of granting membership in the IMF to the Communist nations, it is easy to envisage overriding political considerations relating to detente. Membership of Socialist nations in the IMF, while not especially desirable, would certainly not seriously hurt the organization. IMF membership does not loom large among the many issues involved in trade expansion.

The Gatt

The MFN tariff and GATT issues have already been discussed in Chapters III and VIII. It has been pointed out that under central planning with direct controls, real tariffs do not exist and that reciprocation of MFN requires simulating the reduction of tariffs. While some simulation is possible and this enables CPEs to trade in a relatively nondiscriminatory way with the advanced Western nations viewed as a group, Western exporters are nevertheless unable to really compete with Eastern state enterprises, and Western traders in general are at a severe disadvantage vis-à-vis other bloc traders. The latter is because political, economic, and institutional forces lead CMEA nations to favor each other in trade.

The political factor relates to the importance of trade as a major tie which binds the other CMEA nations to each other. Over the past 30 years their economies have become more closely linked and, in particular, they have all become more closely tied to the Soviet economy. The USSR, at least, is likely to

¹Quoted by Wilczynski, Comparative, p. 199.

want to continue to use intrabloc trade as a political instrument. This is attested to by the adoption by CMEA in 1971 of the "Comprehensive Program" and in 1975 of the "Coordinated Plan." Both of these documents provided programs to increase the integration of CMEA nations and certainly had the blessing of the USSR. To the extent that attempts at integration are successful, trade may be diverted from the West. While in favor of CMEA integration, the USSR must nevertheless view it with some ambivalence because intrabloc trade has become increasingly costly to the USSR in recent years in terms of foregone opportunities to increase further their trade with the West. To some extent these costs have been reduced by the rise in the Soviet intrabloc prices of oil and gas. Further, new arrangements place much of the burden of investment in Soviet extractive industries on the Eastern European nations where these investments are designed to lead eventually to Soviet exports to Eastern Europe.

The economic factors which may serve to maintain a high level of intrabloc trade at the expense of East-West trade are the hard currency deficits and debts of the Eastern nations and the convenience to these nations of trading with each other on a nation to nation basis. With regard to the hard currency problem, it must be stressed that the USSR, however, is more credit-worthy than the other Eastern nations and should remain so for some time unless the more pessimistic predictions regarding oil exports and grain imports come true.

The major institutional tie is central planning - central planners find it easier to trade with each other in larger bilateral bargaining sessions than to trade piecemeal with individual capitalist enterprises. This factor will continue to lead CMEA nations to grant preferential treatment to each other in the absence of radical economic reforms. Such reforms, by decentralizing foreign trade decisions, would lead CMEA nations to buy in the cheapest and sell in the dearest markets, and such decisions would undoubtedly increase East-West at the expense of intrabloc trade. Such reforms could contribute as much to increasing East-West trade as any other possible development. Aside from eliminating discrimination against the West, radical reforms would probably improve the quality of manufactured products produced in Eastern Europe and thereby increase the potential for hard currency earnings - reducing that obstacle to East-West trade. What is the likelihood of such reforms - particularly in the USSR? Very slim, in our opinion. The 1965 reform, timid to begin with, was not a success and has largely been reversed. The 1973 reform was also timid and is unlikely to have any profound consequences since it doesn't decentralize but, rather, attempts to make central planning with direct controls work better.

We have presented some of the political and economic reasons why the CMEA nations, including the USSR, when they enter GATT, are likely to enter as representatives of what is in effect a fairly protective customs union. There is no reason why they should not have the privilege of such a classification. Sixteen of Eastern Europe's major Western trading partners are members of EEC and EFTA and at least 30 percent of all their imports are estimated to be governed by preferential arrangements.¹ This is viewed by the USSR as involving a massive amount of discrimination. Additional discrimination, the same author argues, results from the fact that so much capitalist trade today takes place between branches of the same multinational enterprise (Petrov, p. 46). Thus, roughly one-fourth of US exports are intra-multinational. Such trade is obviously

¹K. Petrov, "The Most-Favoured-Nations Principle and Discrimination in World Trade," Foreign Trade, 1974 No. 4, pp. 43-4-4.

discriminatory since the buyers and sellers are not independent. The question the US faces is: if the USSR applies for membership in GATT, should we support, it, support it with conditions, or oppose it. At the outset it must be recognized that past events leave us less than perfectly free to make a decision on matters of principle. For one thing, three CPEs are already members of GATT. Opposition to Soviet membership would logically call for expulsion of those CPEs which are already members.

Second, breaches of the spirit and law of GATT principles by Western nations, including the United States, have been fairly common in recent years and have been on the rise as a result of the raw material and energy shortages as well as difficulties with the international monetary mechanism. In principle, GATT members are not allowed to discriminate in favor of domestic enterprise.¹ However, market economies are allowed to introduce quantitative restrictions for balance of payments reasons, for purposes of development, and to protect agriculture. In addition, as just noted, protective devices have proliferated in recent years partly for balance of payments reasons but often just in response to domestic economic pressure groups. While market economy protectionism never approaches the degree that exists in CPEs, it nevertheless reduces the force with which Western nations can argue against Eastern protectionism. Since everyone's hands are a little dirty, it is difficult to cite dirty hands as a basis for exclusion.

Third, the United States agreed to grant MFN status to the USSR in return for a settlement of the lend-lease account not to mention other commercial arrangements and political concessions relating to freer emigration. Since matters relating to Lend-Lease and freer emigration are outside GATT's purview, it would be difficult to oppose accession to GATT. At this point in time (Dec. 1978), it is noteworthy that the Soviet emigration is reported to have risen again to the 25-30,000 persons per year level (New York Times, 12/10/78, F20), a level which may well satisfy the US administration's requirements for MFN.

Fourth, the USSR has already received MFN status bilaterally from most of the advanced industrial nations. Under these circumstances, the Russians lose little by not being admitted to GATT whereas the Western nations stand to gain from a multilateralization of MFN through GATT by arrangements such as those made with Poland and Romania.

Fifth, as argued in Chapter VIII, non-discrimination in trade can be viewed as the natural state of trade. As noted by a Soviet legal authority, the right to non-discrimination stems from the sovereign equality of states and is recognized by the UN.² Since non-discrimination in trade is impossible without MFN, then it is discriminatory, under this interpretation, not to grant the USSR MFN status. This reasoning would apply both to the US and to GATT.

In any negotiations with the USSR over accession to GATT, the USSR should certainly be required, as its MFN commitment, to guarantee *ceteris paribus*, that its imports from GATT members rise on a non-discriminatory basis along with its trade in general. Of course, its serious deficit in hard currency payments must be taken into consideration and this will certainly modify its performance. Another factor which should be taken into account – something the USSR which has been ignored in the cases of Poland and Romania – is that

¹Kenneth Dam, GATT Law and International Economic Organization, Chicago 1975, p. 322.

²D.T. Usenko, "Most-Favored-Nation Treatment in Soviet-American Trade Relations," Denver Journal of International Law and Policy, Vol. 5, 1975, pp. 244-245.

negotiations, like those in progress in Tokyo, which lower Western tariffs to all GATT members, have no counterpart in Eastern commitments to increase imports still further. In effect, Poland and Romania, once in MFN, are free riders after that. The Tokyo round should require increased commitment of its CPE members. This should apply to the USSR if it accedes to GATT. Pressures should be brought to bear on the USSR to reduce the preference it accords CMEA members and the amount of protection it affords domestic industry – since both are excessive by Western standards. More than this cannot be realistically asked of the USSR. Allowing the USSR into GATT appears costless and would appear to be beneficial to that country and to the members of GATT as well.

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Chapter X: Economics And US-USSR Military Interdependence

Perhaps the single most important economic relationship between the US and USSR - both in sheer magnitude and in its implications for the future of mankind - is, as it is commonly called, the "arms race. Not entirely, but to a very large extent, the growth in research and expenditures on armaments has been a byproduct of Soviet-American military-political-strategic rivalry. World military expenditures in 1977 amounted to \$411 billion or 5.7 percent of world GNP.¹ The Soviet Union and the United States, between them accounted for approximately \$250 bn. about 60 percent of the total. In dollars, in 1974, the US reported spending \$85.9 billion, and the USSR estimated by the US Government to have spent the equivalent of \$103 billion. (More on this estimate later). The magnitude of these figures is further highlighted by the following facts for 1974: GNP of Africa - \$113.2 billion (ACDA, p.15); GNP of Latin America - \$269.2 billion; public expenditures of 13 major nations on education, health, and foreign economic aid (in \$ bns.) - 271, 157 and 15, respectively.² The resources "wasted" on military expenditures each year by the US and the USSR, not to mention the rest of the world, clearly dwarf the annual gains from trade and investment which accrue to these two nations or which accrue to third nations which trade with them. Their own mutual trade and investment is, of course, relatively miniscule and will remain so under almost any conceivable scenario.³

The military expenditures of the two superpowers are not exclusively a function of the other's expenditures but of other factors as well. For example, it seems reasonable to argue that as each nation grows, under normal circumstances some part of that growth will be allocated to defense. In other words, growth of defense expenditures is partly a function of economic growth in general. Secondly, US or Soviet defense expenditures may increase as a result of political or military actions which are not at all or only indirectly related to activities of the other major antagonist. So, for example, US defense expenditures suddenly tripled between 1950 and 1952-53 as a result of the Korean War whereas Soviet expenditures followed the previous trend; after 1953, US expenditures declined whereas Soviet expenditures remained relatively stable. A similar pattern was followed over the period of the Vietnam War. On the Soviet side, it seems quite obvious that a large part of its defense expenditures are geared not to the potential threat of war with the United States but also to its Chinese flank. It has, after all, approximately 1 million men along the 4000-mile border between the two nations, and the cost of supporting such an army so far from its supply bases must be exorbitant.

¹ACDA, World Military Expenditures and Arms Transfers, 1968-77, p.27

²Ruth L. Sivard, World Military and Social Expenditures 1977, Leesburg, Va. 1977, p.21.

³Recall that the money value of trade itself is not "gain"---it is % only the profit on that trade and on the exchange of exports and imports that constitutes real gain.

Despite these caveats, the interrelationships between the two nations' defense expenditures are undeniable. That this is the case has been demonstrated econometrically by an American scholar, Paul Gregory.¹ Gregory estimated a regression in which he made Soviet defense expenditures (SDE) a function of Soviet national income (SY) and US defense expenditures (UDE). His results showed that both SY and UDE exerted positive and significant impacts upon the level of Soviet defense expenditures ..." (pp. 76-77). In particular, his model suggests that a 1.0 percent increase in UDE results in a 0.593 percent increase in SDE.² Another regression, designed not to explain levels of Soviet defense spending but changes in those levels pointed very clearly to changes in UDE as the major explanatory variable (p. 77). One implication of this finding is that if UDE should suddenly begin to rise without any obvious explanation like Korea or Vietnam, SDE would follow suit regardless of the strain this involved on the Soviet national economy.

For a number of reasons, Gregory did not attempt to "explain" the level or changes in the level of US defense spending. That a similar mechanism undoubtedly operates is much more obvious for the US than for the USSR simply because the US decision-making process is so exposed in Congressional Hearings and in the press. At the time that the budget for the subsequent fiscal year is being hammered out, witnesses by the dozens are paraded out and, with the exception of occasional peaceniks, a major part of the evidence which is presented to support an increase in US defense spending is the need to either catch up with or outpace the USSR. While probably more attention is paid to aggregate defense expenditures than to any other single indicator, witness after witness will argue that we are behind in civil defense, navy, ICBMs, numbers of soldiers in the European theatre, and so forth. Many of the witnesses are experts from the Department of Defense and the Central Intelligence Agency, of course, since it is the business of some members of these two organizations to know as much or more about the subject under discussion than anyone else in the world. Their knowledge is beyond question.

Unfortunately, knowledge in this area of discourse is not absolute. Further, even if there were incontrovertible facts, their use and implications would often be a matter of controversy and subject to differing judgments. Finally, to the extent that judgment plays a role in interpretation and decision-making, the opinions of "experts" will undoubtedly reflect their affiliations. It would be surprising, indeed, for a general or an admiral to argue that the defense allocation should be reduced in favor of higher welfare payments, more expenditure on environmental protection, or a smaller budget deficit and reduced inflationary pressures. There is little doubt in my mind that the DOD has a vested interest in expanding its province as rapidly as possible (the term province being defined, to include current and future weapons systems and military expenditures in general). Vested interest is partly just that - empire building - but it is also partly a genuine belief that the nation needs the appropriations requested by the DOD if it is to be properly defended.

¹Paul R. Gregory, "Economic Growth, US Defence Expenditures and the Soviet Defence Budget: a Suggested Model", Soviet Studies, Jan. 1974. See also discussion of Gregory's paper by Franz Walter in the July 1974 Soviet Studies as well as Gregory's response in the October 1974 issue.

² In this regression, the level of SY is as important as UDE in explaining the level of SDE.

Counterparts of DOD spokesmen we have just characterized undoubtedly exist in the Soviet Ministry of Defense, men who worry about US military power and who also have a career stake in insuring that the defense establishment continues to receive its fair share of the national pie.¹ Their tactics are probably not very different from those of their US counterparts - a statement which, however, cannot be verified because of the secrecy of the Soviet budgetary process.

As noted above, the level of and changes in aggregate military expenditures is probably the single most important pair of indicators used in the annual arms race debates. How they are calculated and presented in the annual US Hearings are an object lesson and shed considerable light on how an important share of this nation's GNP is allocated. Possibilities for obfuscation exist for two basic sets of reasons. First, the Soviet Government has not published, for at least 40 years, more than one figure for its defense expenditures. This would be a satisfactory state of affairs if it were absolutely clear what that figure included and if it were not the case that, in recent years at least, that figure is believed by Western experts to substantially understate the Soviet defense effort. In contrast, the content of the US defense budget is laid out in exhaustive detail for all to peruse. Second, even if there were a reliable ruble figure for Soviet defense expenditures, there would be no simple way of comparing that figure with its American counterpart because the ruble exchange rate is not a real price. Third, there are a number of difficult methodological problems which must be confronted in comparing economic magnitudes across countries. The most important of these is the so-called index number problem which will be explained below.

Various techniques have been used in the past to compare the defense budgets of the two nations. The major effort over the past dozen years or so has been that of the CIA.² The CIA procedure is to try to get quantitative estimates of everything that is included in "defense" - numbers of soldiers, numbers of tanks, missiles, submarines, and so forth -- and to value these at American prices allowing, wherever possible, for quality differentials. The quantitative estimates are based, wherever possible, on published sources (e.g. numbers of military personnel) but where these are lacking, resort is had to a wide variety of "intelligence" including, most important, interpretation of satellite reconnaissance photos. The resulting estimate of Soviet defense expenditures in dollars amounts to an estimate of what it would cost our Government to reproduce the Soviet defense effort.

It is well-known among economists that a comparison of US and Soviet defense expenditures in dollars tends to "exaggerate" - in the sense that it provides an upper limit of Soviet relative to US defense expenditures. Analogously, a comparison in rubles - if it were made - would tend to "exaggerate" US relative to Soviet defense expenditures.

¹Cf. Les Aspin, "How to look at the Soviet-American Balance", *Foreign Policy*, Spring 1976, (§ 22), p. 99; *New York Times*) 11/7/1976, p. 3.

²The following pages rely heavily on my "US-USSR Military Expenditure Comparisons: A Critique of the CIA Estimates and Their Policy Implications", *International Security*, March 1980.

This is the index number effect mentioned above and it applies to all sorts of economic comparisons between sets of countries. It makes little difference which nation's prices are used for the comparison if the nations are similar in per capita income, capital/labor ratios and particularly where the relative prices of labor and capital do not differ much between nations. Unfortunately, these conditions do not hold in US-USSR comparisons. Per capita incomes in the US are at least double those in the USSR, labor is relatively expensive and capital is relatively cheap. For this reason, US defense expenditures are relatively capital intensive, Soviet are relatively labor-intensive. Each nation as a result finds the other nation's defense effort more expensive to reproduce in its own prices. For those who prefer a nuts and bolts approach to vague generalizations, a simple illustrative example is presented which presumes to represent the defense establishments of the two nations aggregated into two classes of items: equipment and manpower.

Table X.1 Soviet and American Defense Expenditures

	<u>Equipment</u>		<u>Manpower</u>		<u>Value in</u>	
	<u>Q</u>	<u>P</u>	<u>Q</u>	<u>P</u>	<u>\$\$</u>	<u>Rubles</u>
USSR	11	5r	5	2r	\$72	65r
US	10	\$2	2	\$10	\$40	54r

Q is quantity; P is price.

The figures presented above are for illustrative purposes and need not be precisely representative, of course. Nevertheless, some of them are not too far off. First of all, we see that the US annually spends a little less on equipment and much less on manpower than the USSR. The manpower proportions are not far from the truth: our roughly 2 1/2 million man army in comparison with theirs of approximately 4 1/2 million. Second, US prices of manpower relative to equipment are higher than the Soviet ratio. Again, the wage figures are close to the reality of 1973, at which time the average wage plus maintenance in the US army was slightly over \$10,000 whereas the Soviet counterpart undoubtedly amounted to something less than 2,000 rubles. The index number effect is graphically represented in the last two columns. If both defense establishments are valued in \$s, the USSR (72) is 80 percent greater than the US (40) largely because their big army is valued at our high volunteer army, \$ wage rates.¹ On the other hand, valued in rubles the Soviet defense effort (65) is only .20 percent greater than that of the US (54) largely because our relatively large purchases of military equipment are valued at high Soviet ruble prices.

¹In fact, if the US had continued the draft and draftee pay scales, the US spending levels would be much closer to those of the USSR in dollar terms. This fact highlights the tenuous nature of such comparisons.

Which of the two estimates more accurately represents the comparative strengths of the two nations' defense establishments? The answer is that they are equally valid. They simply represent different measuring rods just as a man's weight on the moon is legitimately very much less than his weight on the surface of the earth.

The usual procedure in making such comparisons is to calculate expenditures in both countries in dollars and rubles *and* present the results either as a range or as the geometric mean of the two. So, the USSR was estimated in 1955 by an eminent scholar to have had a GNP that was .275 of the US in rubles but .452 in dollars.¹ Another example; CIA estimates for 1976, published in October, 1979, showed that Soviet GNP was only .495 of US GNP when both were priced in rubles but .737 when both were in dollars.² In the case of machinery and equipment, the ratios were .863 and 1.414, respectively. In every sector, the CIA dollar comparison favored the USSR (and the ruble favored the US) and usually by more than 30 or 40 percent. (That is to say, .737/.495 - 1.49 or 49% larger; 1.414/.863 1.63 or 63% larger.)

Now, in 1976 and 1977, the CIA estimated that in dollars Soviet defense expenditures were 1.40 times those of the United States. Under questioning by Senator Proxmire in the Joint Economic Committee Hearings, Director of CIA, Admiral Turner said that CIA's unofficial ruble pricing of both defense budgets put Soviet expenditures at 1.25 times those of the US.³ This amounts to an index number spread of only 12% (1.40/1.25) far less than the 30-60% generally experienced in US-Soviet comparisons. Given a dollar ratio of 1.40, one would expect a ruble ratio of, say, 1.05 or 1.10. The CIA admitted that the 1.25 estimate was, for lack of data, estimated at a very high level of aggregation, and that doing so does reduce the index number spread.⁴ It seems highly probable, therefore, that if the CIA could disaggregate its military estimates in rubles, that Soviet expenditures would drop from 1.25 of ours to perhaps, 1.10.

A second factor causing Soviet military expenditures to be overstated is the tendency of the CIA to value Soviet military equipment at the prices of higher quality US equipment. Attempts are made to adjust US prices for quality differences but, according to former Director Colby of the CIA, overstatement of quality and price is "the general case."⁵ How large the overstatement is is difficult to say for sure. However, there is pretty good evidence that Soviet civilian equipment tends to be, on an average, some 30-40 percent lower in value on markets than comparable Western equipment.⁶

¹A. Bergson, Productivity and the Social System - the USSR and the West, Cambridge, 1978, p.49.

²Joint Economic Committee, Congress of the United States, Soviet Economy in a Time of Change, I Washington, Oct. 10, 1979, p.378.

³Joint Economic Committee, Congress of the United States, Allocation of Resources in the Soviet Union and China, pp.22,40; 1978, pp.37,54. These Hearings have been published annually. Hereafter, references to them will be: JEC, year.

⁴ JEC, 1975, p. 24.

⁵ JEC, 1975, p83

⁶Paul Ericson, "Soviet Efforts to Increase Exports of Manufactured Products to the West", in Jt. Econ. Committee, U.S. Congress, Soviet Economy- in a New Perspective, Washington, 1976, p.723.

The US Arms Control and Disarmament Agency feels that the gap is probably just as large in military equipment despite Soviet incentive to produce high quality products because the pace of military innovation is relatively so rapid.¹ Eliminating this source of overvaluation of Soviet military equipment would reduce both dollar and ruble comparisons of the two nations defense expenditures.

A similar factor leads to overstatement of the relative amount of funds the USSR devotes to its military payroll. The CIA assumes that American and Soviet soldiers are of equal worth. Therefore, in their estimates, they use the same wage rate, whether in dollars or in rubles, to value Soviet and American soldiers. This is not the procedure they follow in valuing other sectors, however. For example, Soviet doctors and teachers are put at 80 percent of their counterparts in the United States because of poorer educational background and lower level of training.² The Soviet armed forces have a poorer educational background than the American and, furthermore, receive much less on the job training. There is good reason to believe that the 20 percent discount applied in other sectors should be applied here as well. This would reduce Soviet defense expenditures in both the dollar and ruble comparisons.

A final, but very important, CIA procedure leads to a significant understatement of US defense spending in rubles. We refer to the CIA procedure in valuing US very high technology weapons in a ruble comparison. According to the CIA, the major reason why a careful ruble estimate is not made and published is that while all military equipment the Russians produce is within our technology and can be given a real dollar price, a large part of United States equipment is beyond Soviet technology and cannot be given an actual ruble price. The CIA procedure in valuing American high-technology equipment is to use ruble prices "applicable to the closest substitute goods which can be produced in both economies."³ What this means is that the CIA's ruble calculation values this American equipment at ordinarily high Soviet ruble prices but not at what the former Director of Central Intelligence William E. Colby called prices that are so high as to be "almost uncountable."⁴ No wonder American defense expenditures priced in rubles are estimated at less than the Russians' defense expenditure. If a properly high ruble price tag could be put on our high technology, the American defense package would certainly cost the Russians more to produce than their own. It might well be that they cannot produce our defense package at any cost.

The major fallacy in the CIA procedure is that the very dimension of the arms race in which America has the greatest advantage--advanced technology--and which makes most of the difference between military superiority and inferiority, is enormously undervalued. The CIA's ruble comparison asks implicitly: Which country's defense package would cost the Russians more to produce assuming that America has no technological lead? This question is a proxy for another one: Which country's defense package is stronger, assuming that the United States has no lead in weapons technology? These questions are

¹See its World Military Expenditures and Arms Transfers, 1968-77, Washington, 1979, pp. 13-15.

²JEC, 1975, p.85.

³JCE, 1977, p. 40

⁴JEC, 1975, p . 24

analogous to asking: Would Wilt Chamberlain have been a greater basketball player than others if he had been six-foot-one instead of seven-foot-one inches tall?

These are the major specific sources of error admitted by the CIA, but never quantified, to which we call attention here. More generally, however, the CIA has to make many choices into which errors could creep--such as in interpreting the quantities of weapons from satellite photos and in the dollar costing of Soviet equipment. It seems reasonable to argue that all such choices are infected by an "asymmetric loss function" bias. That is to say, all those working for the US Government on US-USSR military expenditure comparisons are likely to view the danger from underestimating Soviet military output as greater than the danger (loss) from overestimating it. Over-estimation would, at worst, simply lead us to waste another \$5-10-20 billion worth of resources trying to catch up; underestimation could result in military inferiority or even defeat. So when the CIA admits to a possible error of + 15%, the chances are the errors are skewed to a range of from +25% to -5%.

What impact would correcting the major specific sources of CIA error have on their estimates of USSR/US defense expenditures. Very rough calculations¹ suggest that the Soviet excess spending in dollars would be reduced in 1976-77 from 1.40 to about 1.18-1.27; and that the Soviet excess in rubles would be reduced from 1.25 down to between .70 and .97. That is to say, the Soviets would still be spending more than we do in dollars but we would be spending more than they do when both defense establishments are valued in rubles. There is little basis, then, for claiming that either nation is outspending the other on defense. It is a serious disservice to our policy makers and to the public to have the CIA dollar comparisons, as these comparisons are presently calculated, used in the national security debates. Either both dollar and ruble figures, correctly estimated, should be presented--or neither should be.

It is also extremely important to recognize that there are undoubtedly Soviet counterparts to the CIA. At the aggregative level, for purposes of comparison, they probably calculate US defense expenditures in rubles. They are undoubtedly aware of index number effects but whether they make calculations in dollars or not we do not know. It seems reasonable to argue that the vested interest of those making the calculations in the USSR is to build up, as much as possible, the Soviet military-industrial complex. In this event, they would only make a ruble calculation or, at least, would stress the ruble calculation just as our policy makers stress the dollar calculation. They are also likely to be possessed of asymmetric loss functions which, in numerous ways, would lead them to overstate US military outlays and effectiveness relative to their own. The frightening thing about this highly probable scenario is that each nation, viewing the other's defense expenditure through exaggerated index number lenses and from the standpoint of an asymmetric loss function, is apt to try to increase its own defense expenditures beyond what is necessary to achieve any pre-assigned goal. So, for example, if both nations would be satisfied with aggregate expenditure parity, and actually have parity, each would nevertheless chase the other forever in upward escalation under the impression that it was behind. A rubles eye view of US defense expenditures plus an asymmetric loss function is even a possible explanation of the continuous rise over the past decade in Soviet defense expenditures.

¹Cf. Holzman, "US-USSR Military Expenditure Comparisons", March 1980.

At the micro level, the dynamics are similar. An overall military program consists of several dozen dimensions each of which is deemed very important by major nations. While it is probably impossible for either the US or the USSR to outdistance the other in every dimension, comparisons in every dimension are relevant in decisions regarding both overall expenditures and the allocation of expenditures among specific programs. The brouhaha over civil defense is an interesting case in point. The USSR has recently devoted more resources to civil defense than we have. They have done so despite the fact that they must know that any feasible amount of such expenditures could not significantly change the outcome of a nuclear war nor even make a very large difference in the number of casualties sustained. Careful analyses of the Soviet program have been published by independent scholars and by the CIA.¹ Despite these analyses, there has been considerable pressure in this country to counteract the Soviet program with a more substantial program of our own. As a result, President Carter has recently proposed that we spend an additional few billions of dollars on civil defense. Whether he has done so because he believes in the importance of civil defense or is simply trying to increase credibility with Congressmen who might oppose SALT II is a good question.

Each side obviously fears the other. One which is ahead, tries to stay ahead; one that is behind tries to catch up ; and if equal, each tries to exceed the other. The costs of such behavior are very high. As noted, the two nations together presently spend more than \$250 billion on defense if Western estimates of Soviet defense spending are reasonably accurate. US expenditures constitute about 5 percent of US GNP whereas Soviet expenditures are now estimated to amount to from 11-13 percent of Soviet GNP. These are huge burdens and, as we have seen a good portion of each is attributable to fear of, or competition with, the other nation. Certainly all those policy-makers in either nation who do not have a vested interest in building up the military sector are, or should be, highly motivated to end, or if possible, to reverse the arms race.

Despite the enormous economic gains which would be possible from an end to the arms race (not to mention the reduced dangers of conflict), very little progress has been made in this direction. The major case of bilateral US-USSR negotiations along these lines has been the SALT 1 Agreements. While SALT 1 constituted a step towards arms control, it did not significantly change the upward trend in military expenditures in the US or USSR. In fact, to the extent that controls are applied through SALT to some, but not all, dimensions of the overall military program, there is always the possibility that non-included dimensions will be recipients of offsetting increased funds - and some observers believe that this has, in fact, happened.

Another area in which arms control is being discussed is with regard to reduction of total defense expenditures. Discussions are currently being held in the United Nations of a Soviet proposal that each advanced industrial nation reduce its total defense expenditures by 10 percent. An expert group appointed by U Thant has been meeting on this proposal since 1974 in an attempt to iron out many technical details on which agreement is necessary if overall agreement is to be possible at least between the US and USSR. A major hurdle which has to be confronted is verification. This is a thorny problem in general, especially

¹Cf. articles in The Bulletin of the Atomic Scientists, April and May, 1978 ; CIA Soviet Civil Defense, 1978.

because of Soviet secrecy. While satellite inspection appears to be fairly adequate for monitoring the SALT agreements, it would appear to be much more difficult to devise foolproof schemes for monitoring expenditure reductions.¹

Other and related agreements have been signed or are being discussed but these would appear to have less potential for arms control than the above mentioned approaches. The first bilateral agreement was the Partial Nuclear Test Ban Treaty of 1963. Since SALT 1, there have been a number of less important agreements such as the Agreement on Prevention of Nuclear War, 1973, and the Vladivostok Accord of 1974. In addition, discussions have been or are in progress regarding Mutual Balanced Force Reductions (MBFR) in Europe, on a Comprehensive Test Ban, on conventional Arms Transfer Limitations, and so forth.² None of these, however, promises much in the way of reducing resource commitment to military goals. At this writing (January 1980), the prospects for ratification of SALT II appear dim. In fact, the Soviet invasion of Afghanistan promises to give an upward push to the US-Soviet defense expenditure ratchet which, by itself, may be more costly to each nation than any conceivable potential gains from expanded mutual trade.

¹This writer has devoted a book to the subject : Financial Checks on Soviet Defense Expenditures, Lexington Books, 1975.

²A description of most of these and other discussions are contained in Charles Gati and Tobi Gati, The Debate Over Detente, published by the Foreign Policy Association, Headline Series No. 234, Feb. 1977, pp. 16-19 ; and in : Marshall Shulman, " Overview of US-Soviet Relations" Department of State, Current Policy No. 33, Sept. 1978.

Chapter XI Détente and Linkage

Our history of US-Soviet economic relations in Chapter II ended with the cold war which embraced most of the period from 1946 until the late 1960s. The reduction in hostility and development of cooperation, however guarded, in selected economic and non-economic relations between the late 1960's and December, 1979 has become to be known as a period of détente. Détente involves relaxation of tensions. It does not mean the absence of potential conflict nor does it mean that the nations in question have no differences, fundamental or otherwise. Rather it refers to an attitude in which the belligerents attempt to avoid confrontation, particularly military confrontation, and attempt to identify, "... areas of common interest..." and work out "...ways to deal with these and other issues on which interests may diverge..."¹ In this formulation, competition between the superpowers is by no means eliminated--it continues in space, in weapons development, for political and ideological influence, etc. --but competition must be modulated and codified so as not to threaten nuclear holocaust. On the American side, the present détente also constitutes an implicit recognition of the USSR as a "strategic equal" and was an effort to deal with the USSR, as such, as the two nations emerged from the cold war.

The process of détente has generally been associated, over the past decade, with strategies comprising two related concepts, "linkage" and "leverage." Linkage involves dealings between nations on more than one level (set of issues) at a time with the negotiations on either level affecting the outcome with regard to the other. Leverage refers to the power that can be exerted on either level by one nation by using the other level as a bargaining chip. The use of linkage-leverage strategies requires that (1) there be more than one set of issues on which the nations are either interdependent or wish to affect each other's behaviour; (2) the relative importance to the nations of the various sets of issues must differ between them; and (3) and the leverage that each can exert in the various sets of issues must also vary between them. These points are by no means novel; nor, it should be stressed, is the present use of linkage-leverage strategies in US-Soviet affairs novel to the realm of international relations. Apparently the first instance, in the recent era, of use of linkage in US-USSR relations was the Nixon-Kissinger attempt to get Soviet assistance "...in calming down the Middle East as a condition of, or at least a proper background for, US-Soviet strategic arms talks..."² An early example of economic leverage is provided by Henry Kissinger:³

"...the first time we approved a commercial deal, which was on the order of some \$30 million, was in May of 1971, following the first breakthrough in the SALT...negotiations between us and the Soviet Union. In other words, for a period of more than two years, we told the Soviet Union that restraint in its foreign policy conduct would lead to an expansion of trade relations with the United States."

¹Horn, p. 101.

²Int'l Herald Tribune, 2/7/79, p. 6 reprinting a Washington Post editorial. This editorial quotes William Safire to the effect that Kissinger made this point in a briefing on Feb. 6, 1969. This would constitute, in effect, a political-strategic tradeoff.

³Cited in Yergin, "Strategies....", p. 22.

While the US and the USSR both use linkage and leverage with each other and with other nations, it is probably fair to say that in their bilateral relationship, one is more conscious of American than Soviet applications of such policies. This may be illusory and due to the fact that the factors behind American political decisions are usually widely publicized whereas in the USSR they remain in a black box. It may also be connected with the fact that the US has been stronger economically, and probably militarily, than the USSR and therefore in a better position to act aggressively in the applications of such policies than the USSR. To this can be added the fact that the one objective on which the US had an interest that was as strong as the Russian's, viz. SALT, was an issue which, until perhaps 1978, was insulated by mutual consent from linkage because of its overwhelming importance.

The path to the recent period of détente between the US and USSR was blocked temporarily in the 1960s by the accelerating participation of the United States in the Vietnam War during the Johnson Administration. Matters were compounded by the Soviet-led Warsaw Treaty Organization intervention in Czechoslovakia in 1968. Generally speaking, however, the East-West international climate in the late 1960s was growing more and more conducive to détente. A major factor was Willy Brandt's Ostpolitik. His efforts to relax tensions between West Germany and the Eastern nations resulted, in the early 1970s, in substantive treaties with the USSR, Poland, and the GDR. A Quadripartite Agreement on Berlin in September, 1971, was part of the same overall package. At about this time, the Soviets finally achieved success in convening an all-European Conference on Security and Cooperation in Europe (CSCE), discussions beginning in 1972 and ending in Helsinki in 1975. Most important of all, however, were the Strategic Arms Limitation Talks, SALT I, which were begun in 1969. Both superpowers undoubtedly had wanted such talks for more than a decade--when it had become clear that mutual destruction was possible and probably would always be possible in the absence of disarmament or some other stabilizing arrangement. Because issues relating to SALT have been of such central concern, it must be viewed not only as a product of détente, but a major force in its establishment. To quote two of the leading actors on this point: "In the age of thermonuclear weapons and strategic equality, the relaxation of tensions is the only responsible course and the only policy that can be pursued" (Kissinger); and "The struggle to assert the principles of peaceful coexistence for lasting peace and détente and, in the long term, to prevent the risk of a new world war has been and still is the main element in our relations with capitalist states" (Brezhnev).¹

Economic Interdependence

Détente has involved an increase in the economic relations between the US and USSR, not to mention between East and West as a whole. The increased intensity of economic relations created a greater degree of interdependence between the two nations which conferred both benefits and potential risks. The economic benefits are obvious and it is these which give both nations a positive economic interest in détente though, clearly, the political and strategic goals of détente much more important, especially to the United States. From a purely economic standpoint, international trade and investment between nations are by their very nature what might be called positive-sum games. Individuals and nations do not voluntarily engage in trading relationships unless something is thereby to be gained. In the case of Western capitalist nations, as noted earlier,

there are occasions when gains to private traders or investors do not represent gains to the nation as a whole--but such cases are likely to be exceptions to the general rule.

The major gains to the USSR have been the possibilities of importing food and feed grains in years of poor harvests, the possibilities of buying the fruits of US R&D to update its technology, and the ability to deficit-finance the preceding by external borrowing. In each case, of course, the US is only one of many possible markets and because of our controls, with the exception of grain, not the most important. The gains to the United States accrue primarily in the form of foreign exchange earnings, present and future. There is a large potential commodity gain to the US in Siberian natural gas, and perhaps even in petroleum, should we be prepared to make the venture, but at the moment this appears unlikely.

Opponents of détente (e.g., Grossman, 1977), tend to ignore or downplay the gains as of small consequence and stress the potential risks. There is an element of truth in each of their arguments and the validity of their total position depends in part on just how important each argument is. Some of the arguments and counterarguments are as follows:

(1) Whatever economic or military gains the USSR reaps from our grain, technology, trade, and credits, in effect, strengthen an enemy. In US Congressional debates, the aspect most often stressed is that the USSR is enabled, through Western trade and credits, to divert more resources than otherwise to military purposes.

There are several counterarguments. First, as noted above, trade is a positive-sum game and this means that cutting off trade would damage the United States as well. It may well be that the USSR stands to lose more than the US, but in either case, the damage is unlikely to be serious enough to be decisive in any dimension of the US-USSR relationship. Second, it could be argued that, with minor exceptions, virtually everything denied to the USSR by the US can be obtained elsewhere. In fact, throughout the 1950s and 1960s, the US did attempt to deprive the USSR of almost everything it wanted from us, and the consequences to the USSR were obviously less than catastrophic, especially in the military area.

(2) As noted in Chapter I, has been argued that with hostage physical capital sitting inside the USSR and hostage monetary capital on the asset side of the ledgers of our banks and businesses, we may face either outright losses or the possibility of avoiding losses only by accommodating our foreign policies in ways not to our advantage. Related to this is the argument that the increased trade and investment in the USSR will build up a group of lobbyists--farmers, bankers, multinational firms--whose lobbying efforts may be exerted for policies similarly not in our national interest.

While one cannot deny the possibilities just noted, it is difficult to believe that they could be quantitatively significant given the relatively small scale of potential trade and investment with the USSR under even the most optimistic assumptions.

(3) A third argument is that our independence in international affairs would be compromised if we were to allow ourselves to become dependent upon the USSR for such important products as gas and oil.

The main counterargument against this position is that it is hard to envisage the US importing so much of these or any other products from the USSR to be "dependent." In fact, the possibility of importing more oil and gas from the USSR would serve to diversify our supplies and reduce slightly our much more

vulnerable dependency on Middle Eastern oil.

It is also interesting to note that, in a fundamental sense, the argument for avoiding dependency on the USSR is contradictory to the first argument presented above, viz., that we are strengthening the USSR through its gains from mutual trade. That is to say, if we fear becoming dependent on Soviet gas and oil, by the same token we should try to make them as dependent upon us as possible rather than trying to prevent them from reaping gains from trade. The major Soviet dependencies at the moment are for grain, technology and credit; only a part of these, of course, is supplied by the US. Take technology, for example. In the case of a nation like the USSR, and in the absence of major systemic change, the technology dependency is chronic. The USSR will constantly be returning to the technology exporters for spare parts, replacements, and technology-update. Chronic borrowing also seems to be in the cards especially at the low real rates of interest available in the West. (Chronic borrowing, incidentally, does not imply a steadily growing debt but simply no net increase or no sharp decline.) Finally, the longer the USSR is able to avoid disappointing its consumers in years of bad weather through imported grain, the more difficult it will become to do so when there is a bad crop some time in the future. There is an additional dependency which sometimes develops and which is epitomized by the Polish golf cart case. To the extent that an Eastern nation gears itself to producing for Western markets commodities which are not in demand in the East, a dependency is created. This is, no doubt, an unusual case, but it characterizes a part of East-West trade and does create a dependency in the sense that a break in relations can lead to large losses. (This is equally true for the Western partner, perhaps more so.)

The opponents of détente overlook, or discount, two potential long-run gains from economic relations stemming from détente. First, as mentioned earlier, détente does involve an increase in human interactions between Americans and Russians at many different levels. These interactions are more likely, in a period of détente, to be positive than negative. As such, they could help to reduce the chances of a war between the two nations. The probability of such an effect is very slight, of course. But, as one writer has said, if increased trade reduced the chances of war by 1 percent, this would dwarf all other possible gains from trade (Clemens, p. 93). It must be remembered that the gains from mutual trade (and denial of those gains) between the two nations are also small to begin with. Along the same lines, it could be argued that if the same forces generated by increased interaction helped to reduce the arms race (e.g., through encouraging SALT type agreements), such gains could also dwarf the ordinary gains from trade.¹

To a considerable extent, factors mentioned as possible gains or losses to the US are possible losses or gains, respectively, to the USSR. So, dependency on the US can be viewed as a negative from the Soviet standpoint; so also must the necessity of servicing and repaying credits. There are also several factors which derive from East-West trade which cause the Eastern nations problems but which are independent of individual Western nations. We refer here to the fact that it is not always easy for Eastern nations to trade with capitalist nations. Unlike intrabloc trade, bilateral balancing is not practiced, deliveries are not guaranteed, prices do not remain stable for long periods of time, and exchange rates fluctuate. While trade with the West has always been, in several respects, less convenient or congenial than intrabloc trade, the problems with the former have multiplied since the breakdown of the Bretton Woods system some 10 years ago. Worldwide

¹Or potential losses from seizure of hostage capital.

inflation has caused two kinds of disturbances. First, constantly rising prices have complicated planners' calculations. This may seem like a small point. But consider that Soviet internal commodity prices remained almost absolutely unchanged from 1955 to 1967, and have, again, remained almost absolutely stable since 1967. And consider the fact that intraCMEA trading prices remained roughly stable over 5-year periods--until the recent worldwide price explosion induced annual changes within CMEA. In centrally planned economies, stability of prices vastly simplifies the activities of planners who have to make central decisions regarding millions of commodities. So, for this reason, worldwide inflation in a framework of expanding East-West trade has constituted a great big computational minus to the CPEs. Second, as already noted, Western inflation has forced inflation on intraCMEA pricing. It has also threatened internal inflation in the Eastern economies. Inflation has usually been avoided (from this cause), but at the cost of rising subsidies and the necessity of having to manipulate their own unit of accounting exchange rates.

For reasons similar to those just expressed, planners have preferred the Bretton Woods world of fixed exchange rates. To a large extent, in their dealings with the West they did not need to worry about exchange rate risks. In the present "floating" world, they face the same hazards that Western traders and foreign exchange dealers face--and probably with even more distaste. Frequent changes in exchange rates also complicate the planning of the geographical distribution of trade. Third, the recent Western recession found the Eastern nations totally unprepared for the drop in their exports to the West which resulted. As is now a matter of record, hard currency debts rose sharply because they were unwilling and unable to immediately cut back imports to the lower level of exports. The USSR had, of course, experienced this same problem to an even greater extent in the early 1930's. Nevertheless, that was a long time ago and the myth had developed that central planning was more or less immune to this kind of disturbance. In the Cold War days and before, communist theorists used to boast that the superiority of their system was most evident in the fact that capitalist powers were unable to avoid unemployment and depression. A rise in unemployment in any capitalist country always provided an opportunity for gloating. While some ritualistic gloating may still take place in the press, communist planners undoubtedly now secretly hope that recessions will not develop, since the cost to them of such recessions is in billions of dollars. In general, while nations in both camps may wish to reduce interdependence to avoid being dependent, to the extent that there is interdependence, they have a reason to avoid mutual disruption and to wish each other "good luck."

Finally, the sharp shift in Western terms of trade in favor of raw materials, especially oil and gas, led to similar, though somewhat muted and lagged, shifts in intraCMEA trade. Needless to say, the impact of this development was favorable to the CMEA raw material exporters (like the USSR and Romania) but very unfavorable to the others.

Greater economic interdependence between the US and the USSR (or US-East and USSR-West trade) as a result of détente may well reduce each nation's economic interdependence with other members of its own "bloc." To some extent, of course, the increase in US-Soviet (East-West) trade would involve trade creation--new foreign trade which results when two nations begin to trade a product that the importer previously produced itself or did not consume at all. On the other hand, much East-West trade has (and will) develop out of what might be

called trade diversion¹--trade which takes place between East and West which replaces East-East or West-West trade. The fact that East-West trade as a percentage of total Eastern (or Western) trade has risen so steadily since 1960 is evidence that much of it is probably trade diversion--at the expense of actual or potential intrabloc trade (cf. Table X.1).

Table XI.1
Soviet and East European Imports, from East and West*
(in 7 of total)

	<u>East</u>			<u>West</u>		
	<u>1960</u>	<u>1970</u>	<u>1976</u>	<u>1960</u>	<u>1970</u>	<u>1976</u>
USSR	71	65	53	20	24	38
Eastern Europe	71	68	59	23	27	34

Source: CIA, Handbook....1978, pp. 62, 66.

Note: East-West trade is a much smaller percentage of the trade of Western nations.

* West refers to the advanced Western nations.

The significance of reduced intrabloc trade is not so much in the economic as it is in the political sphere. Since trade dependency is one of the major substantive ties which bind the Eastern nations together, a reduction in this dependency could well affect adversely (but again might not) political relations within the Bloc. This may be one reason why, at the same time that Brezhnev was supporting détente and increased trade with the West, he was also preparing for possibly the most important single economic conference ever held in CMEA. This Conference, finally convened in 1971, was the one which generated the "Comprehensive (or Complex) Program" for integrating the CMEA economies over the subsequent 10-15 years. This was followed, in 1976, by a follow-up Conference in which a "Multilateral Program" was developed, carrying on the work of the Comprehensive Program. Trying to increase East-West trade, and simultaneously trying to increase the integration of the CMEA nations, are not necessarily contradictory goals; both can, in theory, be achieved simultaneously. Nevertheless, an effort to increase trade in either direction is almost sure, in practice, to affect adversely trade in the other. The strength of the Soviet political commitment to trade with the Bloc is evidenced by the facts that, despite its rising hard currency debt and the very high price of petroleum and other raw materials sold in Western markets, the USSR continues to supply Eastern Europe with most of its import requirements of petroleum and natural gas at much lower prices and also imports grain at a high dollar cost to meet Eastern Europe's short-falls in these food products.

¹Usually trade diversion refers to trade which develops between two members of a customs union at the expense of a more efficient outside supplier. Such trade represents a loss to the importer since he shifts his purchases to the less efficient customs union supplier. Much of the increase in trade in CMEA in the early years especially represented such trade diversion. The present increase in East-West trade represents a diversion which is the reversal of this process from the standpoint of the CMEA nations and is, therefore, profitable.

The Trade Agreement of 1972

As already noted, our COCOM partners began to part ways with us as early as the mid-1950s, and the gap between our trade and credit controls and theirs gradually widened. The growing inclination of the Kennedy and Johnson Administrations to ease US East-West trade restrictions was largely stymied by such events as the U-2 incident, the Berlin Wall, the Cuban Missile Crisis and, during the Johnson Administration, by the war in Vietnam. Certainly, it was not politically possible while that War was still heating up to relax controls over trade with the nation which was the primary supplier of weapons to North Vietnam, namely the USSR

Sentiment for a change was, nevertheless, developing. As the popularity of the War waned, pressures to dismantle our export controls increased. These culminated in the passage of the Export Administration Act of 1969, which represented the first significant liberalization of Congressional sentiment on export controls since the original Export Control Act passed 20 years earlier. Liberalization took several forms. First, controls were only to apply to products which had potential military significance and no longer to products with potential "economic" significance, as in the amended Act passed in 1962. Second, Congress took note of the adverse impact on our balance of payments of both restrictions on some exports, per se, and the fact that ambiguities in our controls on other products made it difficult for our exporters to compete successfully. Finally, it was clearly stated in the 1969 Act that one of its purposes was to expand peaceful trade with the USSR and other Eastern European nations. Passage of the Act was followed by further reduction of the list of controlled commodities and some simplification of procedures. Our control list remained, however, substantially longer than the Cocom list despite these belated reductions.

This American change in sentiment and legislation was matched by reaffirmation of interest in East-West trade by Soviet leaders. The 23rd Party Congress (1965) called for increasing "international division of labor" and for "increasing substantially the volume of purchases from capitalist countries" (cited in Wilson, et al., p. 643), and Premier Kosygin admitted, in 1965, that "The pattern of production of machinery and equipment being turned out by branches [of Soviet industry] does not conform to modern standards" and, at that time, spoke of the possibility of saving "hundred of millions of rubles on scientific research work during the Five-Year Plan" (Wilson, et al., p. 643) by purchasing Western licenses. Subsequently the Ninth Five Year Plan (1971-75), clearly relied on increasing East-West trade for the development of a number of industries, especially industries serving the consumer sector plus electronics and chemicals. Further, the Plan stated that "Consideration is being given to mutually beneficent cooperation with foreign firms and banks in working out a number of very important economic questions associated with the use of the Soviet Union's natural resources, construction of industrial enterprises, and exploration for new technical solutions."¹

¹ The State Five Year Plan, pp. 53-54.

The gradual convergence of commercial and political interests came to a head in November, 1971, when then-Secretary of Commerce, Maurice Stans, arrived in Moscow for official exploratory talks with Soviet officials on the whole range of outstanding trade and commercial issues. This was followed by several other sets of preliminary discussions, culminating in May 1972, in the Nixon-Brezhnev Moscow Summit at which the two nations agreed on "Basic Principles of Relations between the United States of America and the Union of Soviet Socialist Republics." The seventh principle states that:

the United States and the Soviet Union regard commercial and economic ties as an important and necessary element in the strengthening of their bilateral relations and this will actively promote the growth of such ties. They will facilitate cooperation between the relevant organizations and enterprises of the two countries and the conclusion of appropriate agreements and contracts, including long-term ones.¹

At the summit, a Joint US-USSR Commercial Commission was established headed by Soviet Minister of Foreign Trade, Nikolai Patolichev and Secretary of Commerce, Peter Peterson. Its first task was to write a Commercial Agreement including, among other things, arrangements for: reciprocal MFN treatment, reciprocal availability of government credits, reciprocal establishment of business facilities to promote trade, mutually satisfactory arbitration mechanisms for settling commercial disputes, settlement of Lend-Lease, questions regarding patents and licensing, joint development of resources, etc. The Commission was thereafter to meet every year to settle outstanding issues.

While negotiations were proceeding, evidence from the US side suggested the wholehearted enthusiasm of the Administration for expansion of economic relations. Secretary Peterson spoke of the possibilities of multi-billion dollar transactions and administration support for raw material development in Siberia.² Shortly afterwards, he called for a \$10 billion increase in Ex-Im Bank's loan resources in order to implement these Siberian investments (Hardt, 1979, p. 27). At the same time, the Department of Commerce approved the sale of a foundry to the Kama River truck factory project, in contrast with its surprising rejection, less than a year earlier, of an application to participate in this same project by Mack Truck.³ Also at this time, one set of American companies (Occidental Petroleum, Bechtel Corp., and others) were participating in multi-billion dollar negotiations by an international consortium to develop gas reserves in Yakutsk in Eastern Siberia for eventual shipment to the US West coast, while another set of companies was negotiating a similar development of Northwest Siberian reserves to be exported through Murmansk to the US East coast.

¹Quoted from Wilson, et al., p. 645.

²New York Times, Aug. 2 and 15, 1972.

³Brada and King, p. 353.

Finally, on October 18, 1972, a set of commercial agreements were signed by the two nations. These agreements were part of a larger set of agreements signed over a two-year period which included science and technology, space, medical science and public health, and environmental protection. That this was the case is evidence that "overall détente" rather than pure economics was the major motivating factor. The Trade Agreement itself, however, is noteworthy in its own right since it represented at that time only the second such bilateral agreement in which the US Government was involved, the other having been with the Philippine Islands. On the other hand, the bilateral trade agreement is the major technique for organizing trade by nations in the Eastern Bloc, whether the trade is intrabloc or East-West, and the Soviet Union's trade is conducted in the framework of trade agreements with close to 100 separate nations. It is important to examine the content of the three major economic agreements concluded in October 1972.

The core agreement was the Trade Agreement, the objective of which was to normalize commercial relations between the two systemically different nations --as had already been accomplished to some extent by other trade agreements between CPEs and western nations. Article 1 of the Trade Agreement provides that each nation accords unconditional MFN to the other with regard to tariffs and a whole range of other usual matters. In agreeing to this, the US brought itself into line with the unanimous practice among western nations, and the USSR likewise brought its practice vis-à-vis the US into line with its almost unanimous practice toward third nations of applying its lower column of tariffs. As we saw in Chapter VIII, the granting of MFN in both cases is probably as important politically, if not more so, than it is economically. The USSR certainly views it as such. The USSR does, however, stand to gain economically since it will be able to compete more easily in our markets in some products. But for the most part, it exports to the US primarily products which are not subject to high tariffs in the first place; secondly, its problems in competing in our markets for most manufactured products are often due more to non-price than price factors.¹ The US also stands to gain economically, not because MFN lowers the tariffs on its exports to the USSR, but because the latter is motivated politically to trade with us instead of with our competitors in the face of what it views as discriminatory treatment. Strangely, the US did not insist, as has been the common practice and as was done in our trade agreements with the USSR, in the 1930s, that MFN be implemented by a guaranteed increase in Soviet imports from the US. Perhaps our negotiators realized that the USSR would buy all it could from us, availability of hard currency being the major constraint. Moreover, the second article of the Agreement did, in fact, envisage a tripling of US-USSR trade relative to the 1969-71 levels. It anticipated the USSR purchasing large quantities of all kinds of goods in the United States. It also pledged both governments to examine the two economies for possible expansion

¹Two possible exceptions are vodka on which MFN reduces the duty from \$5 to \$1-1/4 per gallon; and caviar on which the tariff is reduced from 30% to 15% (Starr, 1973, p. 68). In the case of caviar, Soviet supply available for export has been reported so seriously reduced by the drying up of Soviet seas and lakes that MFN may make no difference.

of long-term cooperation with regard to virtually all areas of the economy and to promote cooperation "between interested organizations and enterprises of the two countries."¹ This is a fairly extraordinary pledge on the part of the US Government which, while very active in restricting trade with various nations, has not usually taken a similar role with regard to trade expansion. Many other western nations have, in trade agreements with the Eastern nations, made similar pledges, of course; and for Eastern nations, it is the natural course. The importance of such intervention, especially in connection with large-scale long-run projects cannot be overstated. As noted in Chapter III, it is very difficult for the USSR to trade ad hoc with a capitalist enterprise on the latter's initiative because it may be difficult to find a place for that trade in the plan and it may take time to clear the transaction with the western government, especially the US with its export controls. Article 2, in effect, proposes that the US Government adapt itself to removing or reducing these obstacles to facilitate trade. The agent of the US Government which has, so far, taken part of the burden of this commitment, has been the Joint US-USSR Commercial Commission. For example, at its second meeting, the Commission reported that it had formed a working group to coordinate Soviet-natural gas projects (Starr, p. 70). The Bureau of East-West Trade of the US Dept. of Commerce has also done a lot of work, such as in the market research field, which serves to facilitate East-West trade.

It was natural to expect some sort of import protection clause in the Agreement if it was to pass the Congress, and this need was met by Article 3 and Annex 1. These sections of the Agreement comprise anti-market disruption procedures similar to those included in the Trade Reform Act of 1974 (described in Chapter VIII). This is, of course, a rather extreme form of protection and, depending on how it is administered, could preclude serious Soviet competition in the US domestic market.² This clause is essentially political, not economic. Article 4, which provides that trade shall be conducted in US dollars or other freely convertible currencies, is also politically inspired, since that is how the USSR has always conducted trade with the advanced industrial nations. However, it is not an uncommon clause in East-West Agreements and it does not appear ever to preclude barter arrangements which are satisfactory to both parties.

Articles 5 and 6 deal with each nation making space available to the commercial representatives of the other government and to US private business interests and Soviet foreign trade organizations. Article 7 encourages third country arbitration for disputes. This was undoubtedly a clause requested by the American side since, typically, business men trading with the USSR have used the Foreign Trade Arbitration Commission in Moscow. Actually, this Commission has a very fine reputation and can still be used. However, it appeared desirable, on the American side, to make it clear that American business men had a clear right to a choice.

¹From the text of the Agreement as quoted in US-Soviet Commercial Agreements, 1972, p. 89.

²In fact, the way the clause is worded suggests that it is virtually a voluntary export restraint.

Article 8 states that "The provisions of this Agreement shall not limit the right of either Government to take any action for the protection of its security interests." This is self-explanatory and from the American side protects our panoply of export controls which MFN might otherwise preclude as discriminatory. Since the Soviet export controls are hidden, the clause is largely unnecessary; however, they also are protected to the extent that someone might argue that their export policies discriminate against the US.

The Trade Agreement was scheduled to remain in force for three years, once it had been approved by the US Congress. It could then, of course, be extended. Among other things, approval by Congress was dependent upon a settlement of the World War II Lend-Lease Debt, and a settlement of that account was signed at the same time as the Trade Agreement. The background of that Agreement was presented in Chapter II. Basically, the USSR agreed to pay the US at least \$722 million over a period ending in the year 2001. Three payments totalling \$48 million were to be made unconditionally by July 1, 1975. The remainder of the payments were conditional on the US Congress approving MFN. While, as noted in Chapter II, the Soviets really felt that they should not have to repay the Lend-Lease debt in money, having contributed so many lives to the mutual war effort (Wilson, et al., p. 646), clearly it, nevertheless, was in their self-interest to give in on this issue. They certainly stood to gain enough from MFN to defray the costs of repaying Lend-Lease, not to mention the potential gains from increased access to US credits.¹ As for the United States, the repayment represents more of a symbolic gesture, without which MFN would never be granted by Congress, than anything else.

Two other economic Agreements were signed on Oct. 18, 1972. One was a Maritime Agreement. This Agreement was, primarily, for mutual port access and a sharing by the merchant marines of the two nations of cargoes with particular reference to grain and oil. One result of this Agreement was to eliminate, in 1973, the substantial unemployment in the US merchant marine. The second Agreement was an "Agreement on Financing Procedures" signed by the Ex-Im Bank and the Soviet Foreign Trade Bank. This Agreement provided for Ex-Im credits and credit guarantees to commercial banks making loans to the USSR. Direct loans were to be made via the Soviet Foreign Trade Bank. At the time of the signing of this Agreement, these credits and guarantees were not available to the USSR as a result of the Fino Amendment passed by Congress in 1968. This legislation prohibited Ex-Im credits and guarantees to nations assisting nations in conflict with the US, in this case Vietnam. The Export Expansion Financing Act of 1971 gave the President authority to override the Fino Amendment if in the national interest. The President did so, in the case of the USSR on Oct. 18, 1972. This Agreement, incidentally, presumably was to stand on its own feet and not be dependent on Congressional approval of MFN to the USSR to implement the Trade Act (Wilson, et al., p. 654).

¹Actually, the payment of \$722 million beginning in 1973 probably amounts to no more, in real terms, than the \$300 million offered at end of World War II, if one takes into account forgone interest for 25 years plus the doubling or more of world prices. From the Soviet standpoint, its capability for repayment is much greater now than it was because its GNP per capita is so much larger.

This, then, was the new edifice constructed by the US and USSR within which a new era of expanded trade relations is to develop. It is an impressive edifice both from economic and political standpoints. Both nations have compromised on important issues in order to put a total package together from which both stand to gain in overall economic terms. The set of Agreements covers in one fell swoop a wide spectrum of institutional and economic arrangements from port access to MFN to credits--and so forth. Many bridges have been built between the two systemically different economies in these Agreements. Having said this, however, it is also important to note that there is little original or novel in the Agreements, especially on the Soviet side. The USSR has made similar agreements with most of the other advanced industrial nations. The novelties which do exist relate to Lend-Lease and to the several byproducts of the Cold War in our legislation vis-à-vis the USSR: withdrawal of MFN, application of the Johnson Act of 1934, and Fino Amendment on credits to Soviet Bloc nations, and so forth. The USSR has been ready, with the possible exception of the Lend-Lease settlement, to sign such a set of Agreements for a long time. The achievement that these Agreements represent is that of the US finally relinquishing, in part,¹ its ineffective cold war economic policies.

Attempts to get the necessary Congressional authorization for the Trade Agreement were made almost immediately. A bill which would have extended MFN to the USSR on a reciprocal basis was proposed by Congressman Moorhead; so also was an "East-West Trade Relations Act of 1972," an updated version of the Johnson Administration 1966 bill. Neither of these bills was enacted (Starr, p. 79, fn. 48). The Trade Reform Act of 1973 submitted to Congress in April of that year also authorized MFN and, in its original form, provided implementation of other features of the Trade Agreement. This Act, finally passed by the Congress on Dec. 20, 1974, and signed in January, 1975, as the Trade Reform Act of 1974 was, as we shall see, amended by Senators Byrd and Jackson in ways that were unsatisfactory to the USSR.

While the Congress proceeded slowly to consider the Trade Reform Act--which covered the whole range of American Trade relations with the world as a whole, in addition to the US-USSR Trade Agreement--the momentum of the Trade Agreement was reflected in many ways. In the aggregate, trade between the two nations increased moderately as the following figures demonstrate:

¹The Agreements do not deal with our export controls.

Table XI-2
United States-USSR Trade

	US Exports = Soviet Imports			US Imports = Soviet Exports		
	<u>\$mns</u>	% of Soviet	% of US	<u>\$mns</u>	% of Soviet	% of US
		<u>Imports</u>	<u>Exports</u>		<u>Exports</u>	<u>Imports</u>
1970	119	1.0	0.2	72	0.6	0.2
1971	162	1.3	0.4	58	0.4	0.1
1972	542	3.4	1.1	96	0.6	0.2
1973	1188	5.7	1.7	214	1.0	0.3
1974	608	2.5	0.6	350	1.3	0.3
1975	1834	4.9	1.7	255	0.8	0.2
1976	2306	6.1	2.0	221	0.6	0.2
1977	1624	4.0	1.3	235	0.5	0.1

Source: US Dept. of Commerce, Selected Trade and Economic Data of the Centrally Planned Economies, Jan. 1978, p. 7; CIA, Handbook, 1978, pp. 53-54.

Further, approximately 20 large American firms were given permission to open offices in Moscow, and even more entered into scientific and technological cooperation agreements with the Soviet State Committee for Science and Technology. In addition, dozens of US firms signed sizeable contracts with Soviet foreign trade organizations, including the massive 20-year Occidental Petroleum deal for an exchange of fertilizer over the period, valued at from \$8 to \$20 billion.¹ At the same time that business activity was building up, the USSR made its first two unconditional payments toward settlement of Lend-Lease.

The Jackson-Vanik and Stevenson (Lyrd) Amendments

That part of the debate over the Trade Reform Act of 1974 that dealt with East-West trade was particularly intense and gathered more than its fair share of headlines. Those who opposed increasing trade with the USSR particularly felt that, as a second best policy, if MFN had to be granted to the USSR, we should, at least, extract from that nation concessions on other matters. For reasons which can be guessed at, but which are not absolutely clear, the other matters very rapidly narrowed down to human rights and then to emigration issues, particularly, though not exclusively, Jewish emigration. It received its legal embodiment in the Jackson-Vanik Amendment to the Trade Reform Act in which MFN was made conditional on a satisfactory emigration policy which was defined as the right to emigrate without having to pay more than a nominal fee (tax).

¹A partial listing of business and technology contracts is contained in Goldman, Appendix 2. A very complete listing and discussion of Governmental and private cooperative agreements in science and technology is contained in Theriot, 739-766.

For many years, there had been, and still is, great dissatisfaction among various articulate groups in the US--Jews, scientists, academicians, etc.--internal discrimination and repression in the USSR against Jews, dissidents, and intellectuals; the very high tax on emigrants which, at one time, amounted to approximately \$30,000 per person on those with advanced degrees; and the difficulty obtaining visas which faced those who wished to leave for religious reasons or because they were suffering various other kinds of repression. In 1970, for example, fewer than 1000 visas were reported to have been granted (Pisar, p. 111). Possibly as a result of public opinion in western nations, combined with the spirit of détente, the number of visas granted to Jews increased in 1971 to approximately 15,000 (Pisar, p. 111). The number increased again in 1972 to 31,500 and reached a peak in 1973 of 33,500.¹ Many felt that these large numbers were evidence of a Soviet concession designed to gain Congressional approval of MFN. It was widely reported in the press that Kissinger informally had impressed on the Russians the importance of such a show to facilitate passage of the Trade Act.

The parallel between the 1974 move, spearheaded by Senator Jackson, to tie MFN to (Jewish) emigration, and US abrogation in 1911 of the trade treaty of 1832 with Russia, primarily on that nation's denial of visas to former Russian (become American) citizens (see Chapter II), is too close to be overlooked. Public opinion on the denial of visas in the early 1900's gradually built up over a two-year period. A mass meeting, held in New York City, included leading business men, congressmen, and academicians. Woodrow Wilson, then a presidential candidate even as Henry Jackson was in 1974, was paraphrased to have said "...that America was not a mere body of traders but a body of free men whose freedom was built on moral not material considerations..." (Tuve, p. 55). At the same time, a resolution, passed overwhelmingly by the House of Representatives, was paraphrased to have said "...that the people of the United States asserted as a fundamental principle that the rights of its citizens should not be impaired at home or abroad because of race or religion, that the government of Russia had violated the treaty [of 1832] by refusing to honor American Jewish passports, that the treaty ought to be terminated at the earliest possible date..." (Ibid.). President Taft had little choice but to follow the advice of the House, although both he and the State Department felt that abrogation of the treaty was unwise and uncalled for.

It is also interesting to note that the debate over MFN was joined by Soviet dissidents. Both Alexander Solzhenitsyn and Andrei Sakharov argued that one way of getting social change in the USSR was by applying strong external pressures. Sakharov felt that, without MFN, the Soviets might be forced to introduce radical reforms, whereas MFN and increased trade with the US would enable the USSR to postpone, perhaps indefinitely, such reforms. He, therefore, publicly supported the Jackson amendment. The Soviet historian, Roy Medvedev, argued against Sakharov and against the amendment on the grounds that one could not be sure how the Soviet authorities would react to such external pressures. He personally guessed that the Amendment "will probably

¹Dept. of State, p. 18.

not improve, but will worsen, prospects for settling the emigration question in the nearest future" (cited by Caldwell, p. 36).

And so, the debate proceeded on both sides of the Atlantic. While the debate was going on, the Soviet hard currency balance of payments situation underwent a significant improvement. First, there was a sharp increase in the price of gold from approximately \$100 to \$200 an ounce between January and December, 1974. This involved, at the time, a big increase in the value of both Soviet gold reserves and current gold output. Second, the quadrupling in the price of oil in the fall of 1973, not to mention the rise in prices of natural gas and other raw materials exported to the West by the USSR, constituted another windfall. Third, the rise in oil prices also meant an increase in weapons sales for hard, rather than soft currencies to OPEC nations in the Middle East. In total, these developments meant that, overnight, the USSR had \$3-4 billion more worth of hard currency available to it on an annual basis,¹ plus a large stock of gold (of uncertain size) which had just doubled in value.

The debate in the United States over what kind of treatment the USSR and other Eastern nations should get in the Trade Reform Act of 1974 continued throughout 1974. Senator Jackson claimed to have 75 senators who would vote his way on the MFN amendment; certainly a large segment of public opinion also supported the amendment. On the other hand, the administration objected to the amendment, pointing out, on the one hand, that it was unnecessary since, as revealed by recent emigration figures, the USSR had informally altered its emigration policies to meet western objections; and, on the other hand, that, while increased emigration was viewed as a desirable objective by the administration, a formal amendment was an affront to the USSR and its passage could prejudice the other more important goals of détente. Along these lines, Kissinger testified on the Trade Act before the Senate Foreign Relations Relations Committee on Sept. 19, 1974 that:

"Where the age-old antagonism between freedom and tyranny is concerned, we are not neutral. But other imperatives impose limits on our ability to produce internal changes in foreign countries. Consciousness of our limits is recognition of the necessity of peace--not moral callousness. The preservation of human life and human society are moral values, too" (cited in Caldwell, p. 37).

As noted above, the Trade Act was passed by Congress on December 20, 1974, and signed by the President on January 3, 1975. The Act included, among other things, denial of MFN to nonmarket economy countries which deny their citizens the opportunity to emigrate or impose substantial taxes on those emigrating or desiring to emigrate. In the final version of this Section (402), not

¹Exports to non-communist nations increased from \$5.4 bn in 1972 to 9.0 bn in 1973 to \$12.7 bn in 1974 (Handbook, 1975, p. 54). The 1974 figure probably would have been higher had the western recession not already set in, reducing demand for Soviet exports.

only was traditional MFN denied these nations for failing to meet emigration standards, they were also excluded from participating "...in any program of the Government of the United States which extends credit guarantees or investment guarantees, directly or indirectly...." Finally, Section 402 precludes the President from concluding a commercial agreement with any such nation. At the last moment, a final amendment by Senator Byrd (Section 613) was tacked on to the Act to make it conform to Senator Stevenson's Amendment to the Export-Import Bank Act. Section 613 prohibits agencies of the US Government, excluding the Commodity Credit Corporation, from approving "...any loans, guarantees, insurance, or any combination thereof, in connection with exports to the Union of Soviet Socialist Republics in an aggregate amount in excess of \$300 million without prior Congressional approval..." This contrasts with Ex-Im Bank loans of approximately \$470 million in the previous two years (Technology Transfer, p. 91), and expectations of billions of dollars more generated by proponents of increased trade, like former Secretary of Commerce, Peter Peterson.

As if these two sections of the Trade Act were not bitter enough pills for the Russians to swallow, Senator Jackson celebrated the passage of the Trade Act with a press conference on the White House steps in which he publicly gloated over what he viewed as a victory over the Russians.

At the same time that the Trade Reform Act of 1974 was passed, the Export-Import Bank Act was amended similarly (as noted above), limiting Ex-Im loans, etc., to the USSR to \$300 million over a 4-year period, unless more were approved by the President and the Congress. It also forbade Ex-Im loans to the USSR for energy production and transmission, and set a maximum of \$40 million for petroleum exploration and research. These latter clauses also represent an unprecedented, in Ex-Im history, type of restriction (Ibid.). It is interesting to note that the credit Amendments to the Trade Reform and Export-Import Bank Acts both made inoperative the 1972 Agreement on Financing Procedures, despite the fact that the Agreement was meant to be independent of approval of the 1972 Trade Act.

Soviet Nullification of the Trade Agreement

Senator Jackson's apparent victory over the Russians was, in some views, short-lived. On January 14, 1975, the Soviet Union did what many of Jackson's opponents feared, namely, it nullified the Trade Agreement, since the Congress had legislated into it conditions which were substantially different from those which had been agreed to in 1972.

It is difficult to say whether Section 402 or 613 was more offensive to the Soviets; western commentators have divided on whether Senator Jackson or Senator Stevenson¹ should get most of blame or credit, depending on one's view, for Soviet nullification of the Trade Act. Either Section would seem to have been sufficient to cause the USSR to nullify the Trade Agreement. Section 402 was

¹Despite the fact that Section 613 was Senator Byrd's amendment, Senator Stevenson was the moving spirit behind it and it largely followed his amendment to the Export-Import Bank Act.

politically offensive on three counts. First, it attempted to dictate to the USSR regarding an important aspect of internal policy, namely emigration. While the USSR might be willing, as it appeared to have been, to bend such policies on an informal basis, to be compelled to do so through legislative action of another country, was undoubtedly an affront to its sovereignty. Second, as we saw in Chapter VIII, the Russians consider MFN to be a right; to be denied MFN on any grounds constitutes an affront. Third, the Section 402 denial of credit on emigration grounds was also viewed as highly discriminatory.

The Stevenson-Byrd Amendment, Section 613, constitutes an affront which is equivalent to the denial of MFN. In the past, Ex-Im Bank legislation has contained many conditions with respect to the lending of money and guaranteeing of loans, but none of these conditions has ever been based on the national origin of the other transactor. Section 613 limits the loans to the USSR--the first time in Ex-Im history that any nation has been so singled out--a clear-cut case of discrimination.

It is difficult to say whether denial of MFN or denial of credit hurts the USSR more from an economic standpoint. Typically, it has been argued that denial of MFN, especially when most important Soviet exports are not subject to high tariffs, is much less important than setting a \$300 million credit ceiling (albeit subject to increase by Congressional action) for a four-year period at a time when the USSR was envisaging multi-billion dollar investments. To a considerable extent, of course, the importance of American credit was reduced by the sudden increase in Soviet hard currency earnings capabilities noted above. By the same token, these earnings reduced the need for the 1972 Agreement in the very short run. The modifying adverb "very" is used here because it was just shortly after the USSR got its windfall of hard currency earnings that the western recession set in, thereby generally reducing Soviet ability to earn hard currency. Further, the 3-4 billion dollars by which hard-currency earning capabilities were increased for reasons indicated above, while substantial and very welcome, were, nevertheless, undoubtedly small in comparison with the excess demand of the USSR for western products. In fact, in 1975, the USSR was forced to seek loans from other advanced nations and is reported to have received from England, France, Germany and Japan a total of some \$8 billion in official credits, not to mention further borrowing from private sources.¹ The credits extended to the USSR by these other nations obviously vitiated the intended impact of US credit policy as reflected in the 1974 Act, just as the unwillingness of Western Europe and Japan to align their COCOM export policies with ours vitiated the impact of our export control policy.

While it is impossible to prove cause and effect, it is a fact that Jewish emigration fell sharply from the peak of 33,500 that it had reached in 1973: 1974 - 20,700; 1975 - 13,300; 1976 - 14,250; 1977 - 16,700.² That emigration

¹Between mid-1974 and early 1976, Western government backed credits totaled over \$11 billion (Brougher, New Perspectives, p. 691).

²Dept. of State, Special Report No. 45, pp. 18-19. It may or may not be significant that ethnic German emigration from the USSR increased by 50% in 1974 and again by 50% in 1976.

declined in 1974 before the Act was signed suggests that the Jackson amendment (and perhaps the Stevenson-Byrd amendment) was not the sole factor behind the drop, although the way events were shaping up had become fairly clear from Congressional discussions in the latter part of 1974. In any event, one must entertain the possibility that the Jackson-Vanik amendment not only was partly responsible for the nullification of the Trade Agreement of 1972, but may have had counterproductive effects on the emigration of Soviet Jews. It is impossible to explain the small upward trend in emigration from 1975 through 1977 with any confidence, but one factor behind it may have been the signing of the Helsinki CSCE Agreement with its various clauses designed to increase freedom of emigration.

Did the nullification of the 1972 Agreement have any impact on US-Soviet trade? Looking at Table XI.2 (above), we see that US exports to the USSR rose substantially in 1975 and 1976, whereas US imports declined relatively and even absolutely.¹ The rise in US exports was undoubtedly partly a function of the disastrous Soviet grain crop in 1975, and implies little about US-USSR economic relations. However, there, nevertheless, was still an increase in US exports to the USSR, both absolutely and as a percentage of total US exports even without the grain exports. So, non-grain imports from the US by the USSR increased from 1.367 of the total in 1974 to 1.95% in 1975, and 2.53% in 1976.² How to interpret these data? First, it would seem fair to argue that, if the Agreement had been put into effect, a more significant increase in US exports than occurred should have been expected and there certainly should not have been a decline in US imports. The increase in non-grain exports from the US might, in fact, represent the delivery of goods under contracts which were signed in anticipation of confirmation of the Agreement. Finally, non-grain exports from the US might also reflect the relative cheapening of US exports as a result of the decline in the value of the dollar.

To sum up the impact of the Jackson-Vanik and Stevenson-Byrd Amendments and subsequent Soviet nullification of the 1972 Trade Agreement, the Jackson-Vanik amendment attempted to link the granting of MFN to Soviet emigration policy, a link which the USSR appears to have accepted on an informal basis but rejected on a formal basis. The Stevenson-Byrd amendment was gratuitous: it simply withdrew the opportunity for the Soviets to get a significant amount of credit or credit guarantees from the Ex-Im Bank, thereby severely limiting the importance to the USSR of trade relations with the US, given the Soviet hard currency deficit. The result has been to prevent what might have been a substantial increase in US-Soviet trade and investment, largely to the benefit of Western Europe and Japan. Trade continues, but at roughly the previous low levels, with the exception of fluctuating US grain exports to the USSR. Soviet repayments on the Lend-Lease debt have ceased. And emigration fell sharply, possibly in part a reaction to the two Amendments.

¹The decline in US imports from the USSR may well have been induced partly by the US recession.

²Calculated from same source as Table X-2 above.

What non-economic effects, if any, were there on the détente and on other issues which might be affected by the attitudes of the two nations toward détente. The US, having been, in effect, the aggressor in this instance in the sense of having pushed linkage too far, experienced little or no change in its attitude toward détente. Those who were against the Jackson and Stevenson Amendments regretted what had been done, and were anxious to eliminate the two amendments as soon as possible; this has been an objective of each US administration since Soviet nullification. And some of those who were for the amendments may also now regret their passage, since they have proved largely counterproductive. Senator Jackson undoubtedly regretted the Soviet renunciation of the Trade Agreement, since they led, eventually, to a decline in emigration. In his eyes, this must have constituted a political defeat. On the other hand, as a hard-liner opposed to détente, he must have derived some satisfaction from his contribution to the Soviet renunciation (Stern, 1979).

As for the USSR, its behavior did not appear to have changed notably, with the exception of that part of it directly affected by the two amendments. That is to say, the failure of trade with the US to expand, and the decline in emigration, may well have constituted reactions to the 1974 Trade Reform Act. For the rest, one can cite examples of both restraint and lack of restraint in Soviet behavior. On the one hand, they concluded the Vladivostok Agreement and, in 1979, concluded the SALT II Agreement with the US. This, undoubtedly, reflects their deep interest in insulating arms control and stability at the military level from disturbances which may emanate from lesser issues. They have also shown restraint in not doing anything dramatic which might have disrupted either (1) US efforts since the Yom Kippur War to achieve a peace in the Middle East, or (2) the Sino-American rapprochement. On the other hand, the Soviet-Cuban intervention in Angola is an act which, from the US point of view, involved an unwarranted meddling in Africa and did strain the détente relationship. While the Angolan intervention may well be unwarranted, it is probably no more unwarranted, in their eyes, than the US interventions in Vietnam and Cambodia, for example. Further, it is important to note that the Soviets have never understood détente to exclude political and ideological competition in the Third World.

In sum, the failure to conclude the Trade Agreement of 1972 does not appear to have changed significantly the course of Soviet behavior except in those areas directly affected by or related to the Jackson and Stevenson Amendments. Nevertheless, the MFN and credit-limiting sections of the Trade Reform and Export-Import Bank Acts are irritating to the Soviets and certainly counter-productive, even if not on a major scale, in US-Soviet economic relations, and perhaps with regard to emigration. The Ford and Carter Administrations have both expressed their dissatisfaction with the status quo. The situation was further complicated in 1978 and 1979 by the fact that negotiations on a Trade Agreement with the Peoples Republic of China (PRC) were under way. The United States was faced with either not granting MFN status to the PRC or, if they did so, giving the PRC such status at the same time that it was denied to the USSR.

Similar considerations had to be faced with regard to the waiver or emigration and the extension of credits, introduced by Senator Stevenson in January, 1979, which would modify the controversial sections of the Export-Import Bank and Trade Reform Acts. First, the nature of the tie between MFN and emigration in the Trade Act is changed so that instead of the United States having "received assurances" from the communist government regarding its emigration policies, the United States simply makes a "determination" as to whether migration policies are in accord with our legislation. This avoids the embarrassing problem of another sovereign nation having to explicitly derogate itself formally before us in order to get MFN. Further, the determination is to be made, not annually as in the existing Act, but every five years. This change is necessary to provide stability for business relationships and, also, to prevent short-run shifts in emigration, for whatever reasons, from disrupting things. Second, S.399 would eliminate the discriminatory \$300 million credit restrictions against the USSR in both Acts, and substitute a \$2 billion restriction which applies against each of the non-market economies. It would also remove restrictions on Ex-Im financing of exports to the USSR of energy equipment, preferably putting these restrictions, if at all, in the Export Administration Act.

This bill, if adopted, would certainly have gone some way toward redressing the problems created by the Jackson-Vanik and (original) Stevenson-Byrd Amendments. However, it doesn't go all the way. It continues to discriminate against the communist nations by special restrictions, *viz.*, requiring an emigration performance in exchange for MFN, and by setting special limits on the total value of Ex-Im credits, which can be outstanding at any one time. No other nations have ever had such restrictions imposed on them. The USSR fares somewhat better than before in that it is no longer the only country in the world subject to credit discrimination--it has all the other non-market economies to keep it company, plus a higher credit limit. On the other hand, as the largest by far in economic terms of the non-market economies, the \$2 billion credit limit is, in fact, potentially much more restrictive of Soviet borrowing than of the other nations. There really does not appear to be much rationale behind the formal \$2 billion credit limit and, in this writer's opinion, it should have been eliminated. Presumably, this bill will not be adopted under present post-Afghanistan circumstances.

Carter's Policies: A Critique of Human Rights Linkage

Recent events have confused the American policy regarding the détente-linkage picture still further. Part, but not all, of the confusion stems from the fact that American policy is not just made by the President but, as we saw with the Jackson-Vanik and Stevenson-Byrd Amendments, is subject to Congressional opinion, not to mention pressures from various interest groups. On taking office, President Carter reinforced a disturbing element regarding détente by stressing his interest in improving human rights all over the world. In practice, this has involved greater interest in human rights in the communist nations than elsewhere. Carter has been fairly clear (but see below) that he would, nevertheless, not allow the issue of human rights to interfere with the achievement of a SALT-2 pact (Yergin, p. 30). However, despite his desire to insulate SALT from human rights, such an insulation was not likely to be observed by the Congress. In fact, not only human rights, but the alleged Soviet

arms build-up, Soviet activities in Africa and Cuba, and just about anything else that the USSR did was bound to have an impact on Congress' decision. At its February, 1979, meeting in Easton, Md., the Republican leadership said as much (IHT., 2/7/79, p. 3). With the hearings on SALT-2 about to begin (Sept. 1979), ratification was clearly threatened by the "Soviet troops in Cuba" and other issues.

While no linkage had been attempted between human rights and SALT, human rights remained as important as they were in 1974 in US-USSR economic relations. In the summer of 1978, two Soviet dissidents, Anatoly Scharansky and Aleksandr Ginzburg, were tried and convicted. Carter reacted immediately and forcefully and, although he never specifically tied his response to this event, "White House officials...said the action had been taken in response to Moscow's trials of Soviet dissidents..." (IHT., 7/19/78, p. 1). Carter's reaction had three prongs. First, he cancelled the sale of a \$7 million Sperry-Univac computer to have been used by the Soviet press agency, TASS, particularly for covering the 1980 Olympics. The reason given was that this computer would upgrade Soviet data-processing capabilities.¹ Secondly, he cancelled a \$144 million contract between Dresser Industries and the USSR to set up production of high quality drill bits for the petroleum industry (IHT., 7/19/78, p. 1). These drill bits presumably had potential military uses.² Finally, and most important, all American exports of oil technology were put back on the export control list. This reversed, for exports of oil technology, the policy adopted in the Export Administration Act of 1969, of only controlling the exports of products with direct military applications. Clearly, in choosing to put controls over exports of petroleum technology, Carter was attempting to put economic pressure on the USSR and was assuming the correctness of the CIA's judgment that the Soviet petroleum industry was in deep trouble.

Curiously enough, while the export control decisions still stood (1979), the President announced that he was planning to ask the Congress to accord MFN to the USSR (and China) on the grounds that they had conformed with Jackson-Vanik standards on emigration. This was based on the fact that 30,300 Jews were allowed to emigrate in 1978, almost as many as in 1973, and almost twice as many as the 17,100 who left in 1977 (IHT, 3/1/79, p. 1) and that emigration in 1979 had been running at almost a 50,000 a year rate.

In effect, we were using economic leverage as a carrot and stick simultaneously, punishing bad behavior in the case of Scharansky-Ginzburg trials and planning to reward good behavior in the case of emigration. This leads one to wonder what might happen if, say, Sakharov were to be arrested and, then, 6 months later Medvedev was put in a psychiatric hospital! Would we put controls on all computer exports as a reaction to Sakharov's incarceration? And if we did, would we react in a similar fashion--say refuse to sell the USSR transportation equipment--if Medvedev were maltreated? In theory, we could "link" each dissident or each Soviet policy we didn't approve of to a product of ours which they can't get elsewhere and sorely need. This would require that we

¹This decision was reversed in April 1979 (IHT, 4/7/79) but TASS had just bought a French computer for the same purpose (IHT, 3/29/79).

²This was denied by officials of the Dresser Industries, (N.Y. Times) 7/21/78, D1).

have as many such products as they have maltreated dissidents and offensive policies.¹

This is the logical implication of Carter's recent actions on human rights. One could argue that such a piecemeal kind of policy hardly adds up to a national policy--it simply isn't practical. How would one make the detailed decisions required? How long would it take for the Soviets to stop doing business with us? Or, for American business in the area of high technology to give up? On the other hand, would anything less amount to more than lip service to human rights? Scharansky and Ginzburg, and Jewish emigration, are the tip of the iceberg of Soviet actions in the area of human rights of which we disapprove. To go to bat for human rights in selected cases, and ignore the rest, as we have done, does not bespeak high principle. One could generalize this argument and ask why; if we are protesting the denial of human rights in a substantive way in these 3 Soviet cases and in the case of emigration throughout Eastern Europe, are we not using economic or other sanctions against the thousands of other such instances around the world. In fact, although we did embargo arms sales to the Union of South Africa, many other instances can be cited in which we actively supported regimes that were notorious for trampling on human rights often to the detriment of more humane regimes. Our wholesale application of a human rights requirement for MFN in the case of the communist nations is clearly and obviously discriminatory. We require a much higher standard of "humanity" of our enemies than we do of our friends. This implies, not surprisingly, the higher priority we accord "politics" than "humanity" in our relations with other nations. Has it ever been otherwise? Probably not very often!

It is perhaps worth raising at this point whether it is at all appropriate to use trade denial² as a political instrument in linkage policy as the US is currently doing. There are many who feel that such policies are inappropriate and that trade should be insulated from political machination. For one thing, to the extent that trade is based on non-economic (i.e., political) criteria, to that extent the gains from trade are reduced.³ It is hard to imagine what international trade and investment would be like today if it were more politicized--it would, in effect, be a mess. In fact, it would probably be largely zero-sum or negative-sum rather than the positive-sum economic game it is. Fortunately, trade has been governed largely by acceptable legal-economic codes (Cooper, 1972-73).

Nevertheless, it must be recognized that trade denial or its threat has been fairly frequently employed since World War II with varying degrees of success and failure. Many nations have applied economic sanctions against South

¹This is an analogue of the proposition that a nation has to have as many policy variables as it has independent economic goals if it is to achieve all the goals simultaneously. It is the mathematical equivalent to having as many independent equations as unknowns.

²The argument which follows is more generally applicable to all kinds of economic warfare and also to the granting of aid for political purposes.

³This argument is vulnerable on grounds of the poor international distribution of income, unequal bargaining power, and so forth.

Africa and Rhodesia. The US export controls against Eastern Europe have been documented above, not to mention our complete embargoes against China, Cuba, North Vietnam and North Korea. Similar economic warfare was conducted by the USSR against Yugoslavia in the late 1940s and then, after 1960, against Mainland China and Albania. During the Egyptian-Israeli conflict in 1973, the OPEC oil embargo against the advanced industrial nations, and the threat of another such embargo, provided a new dimension in economic warfare. The denial or threat of denial of petroleum has proved to be the most effective economic weapon ever unveiled, so effective that it may be classified as a military weapon since, if applied rigorously, it could destroy the economies of many nations as effectively as bombs, and could only be countered in the short-run by military measures. It would be unrealistic to expect denial of petroleum and other scarce raw materials not to be used as political or military weapons today.

Furthermore, even though it is easy to argue that, on economic grounds, it is undesirable to use trade denial as a political weapon, there is nothing absolute about the international economic mechanism that requires its insulation from other aspects of international policy, any more than there is anything absolute about the internal economy. There are more important goals than free, multilateral trade, and, in extreme circumstances, it seems reasonable to argue that trade should be available to be used to achieve what are viewed as higher goals. Economic goals, in the last analysis, are not ends in themselves, but means to other ends. On this basis, it seems reasonable to argue that, in principle, there is nothing wrong with the US using economic pressure to influence Soviet policies on other matters.¹ Further, trade is bound to be politicized by the USSR. Under capitalism, trade is sure to be based largely on commercial principles, because it is carried out by profit-seeking private enterprises. Under central planning, trade is carried out by government enterprises and is, therefore, much more likely to be affected by politics.

One further question needs to be considered. Many would not object to the use of trade as a trade-off in SALT negotiations. But, some feel that human rights, emigration, and so forth, are internal matters embedded in the concept of national sovereignty and, therefore, not to be subjected to such pressures. In reply, two points can be made. First, the military power of a nation, as affected by SALT negotiations, is certainly as important to the exercise of national sovereignty as any other issue. If use of economic linkage is not ruled out on principle from use in military issues, it certainly need not be as linkage in human rights questions. Second, and more important, one could argue that, in much of the world today, human rights have been elevated to a position more sacred than national sovereignty--that is, in principle, nations should be limited in how they can treat their own citizens, national sovereignty notwithstanding. The United Nations sanctions against Rhodesia constitute a recognition of this attitude. And the United Nations declaration, signed by the USSR, that the right

¹To digress a moment, it could be argued that this same argument should not be applied to the denial of petroleum by OPEC on the grounds that the denial of petroleum is so much more effective than other instruments of economic warfare that it falls in a different class. That is to say, denial of petroleum could be viewed as the economic analogue of nuclear or germ warfare; and that its use could lead to enormous destruction and to war.

to emigrate is a fundamental human right, provides justification, supported by international law, for the application of the Jackson-Vanik Amendment to the Trade Reform Act of 1974. Ex post justification is provided by the Soviet signature on the CSCE Helsinki Declaration.

Assuming then that there is nothing in principle wrong with applying economic pressures to achieve human rights objectives, two further questions can be raised: (1) are such pressures likely to be effective in achieving human rights objectives? and (2) are human rights objectives the appropriate US option on which to employ whatever economic leverage we possess?

(1) We have already discussed the first question in some detail. The Soviets nullified the 1972 Agreement, but several factors, other than the tie to emigration, may have been responsible: the increase in hard currency earnings as a result of the high price of oil and gold; the Stevenson Amendment; and Senator Jackson's histrionic behavior. In fact, it does appear that (a) the USSR had stepped up emigration in 1973 and 1974, in response to informal US pressures, and, (b) again in 1978 and 1979, stepped up emigration possibly to encourage renewed efforts by the Carter Administration to restore and ratify MFN, SALT II. Thus, there is some evidence, not unambiguous, to suggest that higher levels of emigration may be viewed by the USSR as a reasonable but informal tradeoff for MFN and perhaps an increase in credit limits. Even if the Soviets respond positively to an informal trade/emigration linkage, they can be expected to deplore publicly, as they have done in the past, any suggestion that such a linkage is possible.¹

(2) The reason that the Jackson-Vanik amendment was successfully included in the Trade Reform Act of 1974 was because a considerable amount of anti-Soviet feeling had built up as a result of "the great grain robbery," the alleged arms buildup, the crackdown on dissidents, etc. As a result, many Americans and, specifically, Congressmen, felt that, since the USSR wanted expanded trade more than we did, we should extract some political concessions from them in return for what were viewed as trade concessions. There was widespread sentiment around the nation that the Soviets were prepared to grant greater concessions than had been extracted from them--the single major concession having been an agreement to settle the Lend-Lease account. Senator Jackson got in there first with his amendment, in effect, filling the vacuum. Several questions can be raised regarding the wisdom of this move. First, if it is decided to extract political concessions for MFN, then it would seem sensible to conduct a full review of US policy objectives to see if there are other issues, which could equally well be traded off against MFN, but which are more important to the nation. Certainly, nothing less than a full review should have preceded such a linkage. Second, if emigration (or anything else) were to be identified as the major issue for which the Congress and Administration wish to

¹Referring to (1) the linkages between trade, on the one hand, and emigration and other human rights on the other and (2) that between local conflicts in the Horn of Africa and Salt-2, the Soviet New Times (p. 1.) editorializes: "The absurdity of such 'linkage' invented in Washington in recent years is as plain as a pikestaff. The solution of one or another issue must facilitate and not impede the solution of other issues. Making one thing artificially dependent on another can only reduce both to naught."

push, then the most effective means available for achieving it should be used. So, for example, linking emigration to export controls or the threat of more restrictive controls might have exerted more leverage on the Soviets than withholding MFN.

Finally, a serious question which must be raised regarding the Jackson-Vanik Amendment, is its criterion, or lack of same, as to what constitutes an adequate level of emigration. The level which seemed to be viewed as acceptable by the United States was around 30,000 per year. But this seemed to have been a very impressionistic judgment and it is not clear whether 30,000 represents 95 percent of those desiring to leave in a year, or, say, 30 per-cent. Further, the Soviets apparently still persecute those who apply for emigration which, in itself, is to be condemned, but which also may reduce the number who apply. Moreover, it should be asked if those who are not allowed to emigrate are sufficiently worse off as to more than offset the gains to those who are allowed to emigrate! If the answer is yes, the whole operation must be questioned. All in all, the Jackson Amendment leaves much to be desired. However, given the nature of the legislative process in the United States, perhaps it is a mistake to assume that more could have been accomplished or that a more rational procedure was possible.

Final Remarks on Détente

Neither the United States nor the USSR took to détente like a duck to water yet, until 1979, despite some ups and downs, both seemed determined to preserve the essence of that approach to their problems. This was, of course, wise, since as time passes, the interdependencies among nations--economic, strategic, technological, ecological--are escalating (Clemens, p. 106). One of the major problems is that the two nations viewed each other as permanent adversaries and, as such, get much more annoyed when either did something the other opposed than if the same thing had been done by a friend. It was only such a view on the part of the US that lead to actions such as: tying MFN to freer emigration, establishing a special market disruption clause and discriminatory credit limits, making such a fuss about communist dumping in US markets--virtually a non-problem (Chapter VIII), and branding the Soviet grain purchase in 1972 a "robbery" (Chap. IX). On the other hand, if the two nations had not been adversaries of long-standing, there would, in fact, have been no need for détente. One can only hope that, over the longer-run, there will be a gradual shift from zero-sum linkages in the bilateral relationship to the positive-sum cooperation which is more characteristic of friends.

Since the US and USSR do have an adversary relationship, it behooves them both to try to avoid irritating the other since a succession of irritations could degenerate into another cold war. Fortunately, both nations seem to feel that SALT is too important to be linked to other issues and one would hope that recent threats by members of Congress to put SALT into an overall political perspective will not materialize. On other issues, it would seem worthwhile for each nation, before it takes a controversial action, to consider the possible short- and long-run consequences of that action for détente. This would call, in my opinion, for a reconsideration of the Jackson-Vanik and Carter linkages on

human rights and, especially, for the unlinked and discriminatory Stevenson-Byrd Amendment.

On the Soviet side, they might well consider, in their civil rights policies, its impact on the West; unfortunately, détente itself is so threatening to internal control that not much can be expected here in the short run. On the other hand, the Soviet harassment of American businessmen and journalists in 1978 was the kind of petty action, like Carter's cancellation of the Sperry-Rand contract, that should be beneath the dignity of a great power. The Cold War was characterized by trivial tit-for-tat actions and reactions like these by superpowers.

Over the longer run, both nations have taken major actions which have been counter-productive in terms of their central interests. Speaking to this point, Daniel Yergin has argued that "The 1948 Berlin blockade was what made possible the creation of West Germany, and without the Korean War the rearmament of West Germany would have been impossible" (Yergin, NYT). He raises the question as to whether uncertain ventures, such as Angola, may not be similarly counterproductive, in this case in terms of both détente and Sino-American relations. The list of uncertain and unsuccessful ventures of a similar sort by the United States is as long as that of the Soviets and requires a similar rethinking.

One final remark on American policies. Much of what we did in the past was a function of the fact that we entered the post World War II as the strongest nation in the world, economically and militarily. We no longer have such a position of dominance. If we are still the strongest nation militarily, it doesn't much matter, given the levels of destructive power available to several nations. As Kissinger put it in 1974:

"One of the questions we have to ask ourselves as a country is what in the name of God is strategic superiority? What is the significance of it, politically, militarily, and operationally, at these levels of numbers? What do you do with it?" (quoted by Simes, p. 40).

Our economic dominance is also marginal today, and becoming more so all the time. While no one would recommend that we let our adversaries have access to our latest military secrets and weapons, it is time that we stopped playing economic warfare games, particularly against the USSR, which is relatively impervious to such tactics. Further, the time may not be far off, if it is not here already, when we have potentially more to lose than to gain from such policies.

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