Surprises in the International Economy

Toward an Agenda for Planning and Research

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C. R. Neu, Donald Putnam Henry

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PREFACE

On December 5 and 6, 1985, The Rand Corporation hosted a conference of expert observers of international affairs to consider potentially "surprising" international economic developments. The aim of the conference was to identify plausible—although in some cases unlikely—future developments that should be borne in mind by those charged today with formulating U.S. economic, foreign, and national security policies. This report is a digest of the conference proceedings.

In organizing the conference and in producing this digest, the authors received essential assistance from Charles Wolf, Jr., director of Rand's International Economic Policy Program. Katharine Watkins served as rapporteur for the conference, and her notes and summaries of conference discussions have contributed importantly to this report. The authors' Rand colleagues K. C. Yeh and Keith Crane offered detailed and constructive comments on earlier drafts. The most important contributions, of course, came from the conference participants themselves. The Appendix to this report provides a full list of these participants.

The report represents an attempt to gather and to summarize the verbal products of two days of discussion and speculation on a wide range of topics by a highly varied group of distinguished observers of international affairs. Errors of fact or failures of understanding that may appear here reflect the weaknesses of the authors and should not be attributed to any of the conference participants.
SUMMARY

International economic conditions are becoming increasingly important to U.S. policymakers. The declining share of world economic activity accounted for by the United States, the growing interdependence of national economies, and the emergence of commercial and financial activities of truly global scale have all combined to erode the ability of the United States to formulate its economic, foreign, and national security policies without careful attention to international economic circumstances. It is also increasingly important that U.S. policymakers anticipate significant changes in international economic conditions. Policies cannot be formulated, implemented, or redirected instantly, and failure to anticipate a substantive development may result in a failure to make an adequate or timely policy response.

Unfortunately, forecasting the course of the international economy is at best an imperfect art. We are constantly surprised by international economic developments. In the face of inevitable uncertainty about future conditions, the only practical approach is often to design policies today with an eye toward what might happen tomorrow, designing policies that can survive or be readily adjusted in the face of changing circumstances. This approach to policymaking requires compiling an inventory of potentially important contingencies and understanding what kinds of policy responses they may require.

On December 5 and 6, 1985, The Rand Corporation convened a conference of experts to discuss possible international economic developments during the next ten years. We asked participants to try to identify potentially "surprising" developments—developments the probability or consequences of which are insufficiently recognized by U.S. policymakers today. In a sense, the work of the conference was to draw up an agenda for planning and research: a list of topics that are receiving insufficient attention is a list of topics for more careful planning and research.

This report provides a digest of conference discussions; as such it cannot be easily summarized. We sought to encourage speculation and discussion on a broad range of topics, and in large measure we succeeded. In this summary, we provide brief notes on the major potential "surprises" identified during the conference.
International Financial Markets and Capital Flows

Participants voiced concern that, although there has been much discussion of a possible U.S. banking crisis brought on by the problems of Third-World debtor countries, the consequences of a major write-off of these debts would still be a "surprise" in the terms of this conference: U.S. policymakers have not given this possibility the attention it requires. On a related matter, our participants speculated about the implications of large-scale attempts to convert Third-World debt into equity stakes in enterprises located in those countries. Also interesting was the suggestion that the United States might find it possible and attractive in the near future unilaterally to return the world to a system of fixed exchange rates. The suggested mechanism for this would be an announcement that the United States would restore dollar convertibility into gold for any central bank that agreed to maintain a fixed exchange rate vis-à-vis the dollar.

Concerning international capital movements, two potentially interesting subjects were addressed. The first was the possible emergence of China as a major destination for international capital flows. The second concerned the possibilities for and the problems created by large-scale capital flight from politically or economically unstable countries. Participants noted that capital flight might in some cases be suddenly reversed and that better methods might be devised to deal with volatile capital flows.

International Trade Patterns and the International Trading Regime

Our participants noted an intensifying struggle between multinational enterprises on the one hand and national governments on the other over who will control trade policy. The former seek to distribute production in search of lower costs and improved market access while the latter seek to maintain local employment and incomes. Clashes seem inevitable. Discussion also touched on the possibility that the recent movement of industrial production to low-wage developing countries might be reversed. Technological progress and more sophisticated production techniques may require a better trained work force than can be found in some developing countries, and low wages alone may no longer be sufficient to attract new manufacturing enterprises.

Numerous potential obstacles to maintaining the liberal principles of the General Agreement on Tariffs and Trade (GATT) as the basis for international trade were also noted. There seems to be growing sympathy for "organized" as opposed to market-determined trade. This
will be further encouraged by the enormous complexity of the next multilateral trade round. Maintaining political support for what will certainly be a lengthy and difficult set of negotiations may encourage nations to conclude bilateral and commodity-specific deals that may be inconsistent with the spirit of the GATT. The emergence of new nations as major traders will also complicate the next trade round. China, Mexico, and Saudi Arabia are not members of GATT today. Their trade is becoming increasingly important, but applying current GATT principles to these countries will be problematic.

**Macroeconomic Conditions and Policies**

The adoption of aggressive anti-inflation policies by a number of industrialized countries in the late 1970s and early 1980s came as a surprise to many. The high interest rates and slow economic growth that resulted from these policies have caused considerable hardship for individuals, firms, and some nations. Governmental changes are possible in some industrialized countries during the next few years, as are significant redirections of economic policies. There also seems to be a growing impatience with the traditional processes of macroeconomic policy. Governments may become increasingly willing to adopt direct (and possibly simplistic) approaches to solving complex economic problems. Some of our participants feared that the Gramm-Rudman-Hollings legislation in the United States might serve as a model for macroeconomic policy formation in the future.

Conference discussants noted an apparent complacency about inflation. Although a return to double-digit inflation would be surprising, it is nonetheless possible. There was also speculation that the power of the U.S. Federal Reserve to determine the level of world interest rates may soon weaken, with perhaps the Bank of Japan assuming the dominant role in determining international monetary conditions. Finally, our participants cautioned that large U.S. current account deficits might disappear as rapidly as they arose, creating problems both for the United States and for other countries—problems that are not attracting much attention today.

**Critical International Markets: Energy and Agriculture**

Despite recent declines in oil prices, the possibility of sharply higher oil prices in the future remains. Higher prices may, in fact, have become more likely. Among the shocks that could bring about higher oil prices could be a total abandonment of nuclear energy in the wake of a serious accident. It is also possible to construct scenarios that will
favor a continuation of low oil prices. Among the more interesting possibilities are a breakthrough in nuclear fusion technology, the discovery of "deep earth gas," or the development of an effective low-cost battery suitable for powering automobiles.

Potential surprises in agriculture will most likely arise from technological developments. Genetic engineering may allow dramatically increased yields or the development of nitrogen-fixing strains of grain. Either of these developments would probably force radical changes in U.S. and European farm policies.

**Human Resources: Population, Immigration, and Labor**

The current situation in South Africa may provide a forecast of how the world will look in the future: a mostly poor, mostly non-white majority coexisting with a mostly rich, mostly white minority, with economic and political power firmly in the hands of the latter. Most observers think that the current situation in South Africa is highly unstable; so may be the future world situation.

One manifestation of demographic instability will be attempts at large-scale flight from political or economic hardship. The Philippines, Central America, Hong Kong, Afghanistan, or South Africa could all produce large numbers of refugees in the next decade. A bizarre twist was given to these discussions by speculation over what might happen if South Africa declared its "black problem" to be an international rather than a purely domestic concern and demanded that other nations provide homes for South African blacks, threatening civil war as the alternative. Problematic migrations might also arise if depressed oil prices were to force the expulsion of foreign workers from oil-producing Persian Gulf states. This could exacerbate already serious political problems in the Middle East.

Some interesting speculation arose over possible future attempts to encourage "elite immigration." The issue is whether nations would permit highly educated or technically skilled workers to be enticed to jobs abroad. Concerns were also voiced about the consequences of failure to assimilate future waves of immigrants into the national societies of their host countries. To the extent that they remain distinct populations, the possibility for conflict with native residents increases.

The most striking speculation about labor markets in the industrialized world centered on efforts by national labor unions to deal with international businesses. Among the potential developments cited were the negotiation of international "fair labor standards" and closer cooperation between unions and corporate management. This closer
cooperation might come about through more widespread use of profit-sharing arrangements for labor or through increased labor representation on corporate boards of directors. A somewhat more surprising development might be the use by unions of pension funds to acquire major stakes in employing companies and thus directly to influence their policies.

**Threats to the Commercial Order**

The international commercial order is frighteningly fragile. Either bad luck or concerted efforts by national or subnational interests could seriously disrupt the conduct of international business. A persistent campaign of terrorist attacks against aircraft bound for a particular country, for example, might have the effect of gradually isolating that country from its commercial and cultural allies. Similarly, a persistent campaign of product contamination could destroy a firm. A chilling variation on the contamination theme was offered by one participant who speculated on the possibility that someday an AIDS-like disease might be purposely introduced into the United States, making U.S. citizens and perhaps U.S. soldiers unwelcome in other countries.

The international financial system also seems vulnerable. There have already been disruptions of the wire services through which banks settle accounts with each other. These disruptions have been the result of computer failures; a determined terrorist might cause much more damage. The growing reliance on electronic rather than physical documents to execute business transactions may also provide new opportunities for counterfeiting.

**Geopolitical Developments**

It is not hard to imagine geopolitical developments that could have profound economic consequences: a new Arab/Israeli conflict, the overthrow of the Saud dynasty, the collapse of the Iranian regime followed by a Soviet grab at power in Iran. More difficult to imagine, but still plausible, are circumstances that could lead to national deviations from what we may consider economic rationality. The accession to power of an Islamic fundamentalist government bent on eliminating all "impure" influences in Saudi Arabia, for example, could bring radical changes in Saudi oil policies. Similarly, the resurrection of rigidly Maoist economic and social policies in China could have consequences for many other nations.

Participants noted that U.S. and Japanese economic interests must inevitably clash and that unless mechanisms are established for easing
the resulting tensions, the larger relationship between the two countries may suffer. More ominously, it was noted that a widening gap between U.S. and Mexican living standards is bound to bring increased tensions between the two countries. One participant raised the specter of U.S. troops being deployed to defend the southern U.S. border after a Communist regime has established itself in Mexico City. But strained relations with allies may not be a problem for the United States only. Closer ties between Eastern Europe and the West and the continuing failure of centrally planned and Soviet-dominated economies of Eastern Europe to provide the amenities so visibly enjoyed by West Europeans may pose a challenge to Soviet dominance of its satellite nations.

**National Sovereignty and the Significance of National Borders**

Current notions of national sovereignty are likely to be inadequate for dealing with many of the economic developments that will confront policymakers during the next decade. Increasingly, these developments will have important consequences for nations not directly involved, and new and untried multilateral arrangements will likely arise to deal with them. The results will almost surely be surprising. In our discussions, we noted the need for international efforts to deal with Third-World debt problems, environmental concerns, and international terrorism. We also noted difficulties that will arise because of the potential inability of nations to control the flow of “contraband” information to their residents.

**Major Conference Themes**

A number of major themes ran throughout conference discussions. On methodological matters, there were repeated warnings about the dangers of extrapolation as a forecasting method. There was also a clear recognition that no forecasting technique would totally prevent “surprises.” Policy must be formulated so as to be robust in the face of changing circumstances.

A second major theme was the “internationalization” of economic phenomena. In particular, our discussions kept returning to the increasingly extranational nature of modern multinational enterprises. These enterprises pose a challenge to national governments; and in confrontations between governments and multinational enterprises, governments can no longer count on winning. Surprises are likely to arise as these enterprises struggle with national governments and
national labor unions for primacy in shaping the economic environment.

A third theme was uncertainty about the proper role of the United States in today's international economy. The United States cannot and should not play the dominant role that it did in the immediate postwar years. But neither is it just another country. A particularly interesting debate arose over the U.S. role as technological leader of the world economy. At issue was the true importance to the U.S. economy of U.S. preeminence in science and engineering, and whether the future vitality of the U.S. economy requires that important technological breakthroughs be made in the United States rather than abroad.

The final major theme of the conference was Japan. No other country figured so prominently in our discussions. Japan was seen as an emerging force in the international economy, as a central element in many unresolved problems, and as a source of economic ideas and organizational arrangements increasingly attractive to Western observers. Retrospective reflection on conference discussions leaves the distinct impression that Japan will be the primary focus of U.S. economic policy deliberations in the coming decade.
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I. INTRODUCTION

Economic forecasting is an imperfect art. Despite our best efforts, we are continually surprised by economic developments. The likelihood of surprises is particularly high when we try to forecast international (as opposed to purely national) economic developments or when we try to forecast developments of any sort more than a year or two in the future. Yet anticipating major developments in the international economy—sometimes years in advance—is becoming increasingly important for U.S. policymakers.

That changes in international economic conditions can necessitate changes in U.S. economic policies is no longer open to serious challenge. Events of the last decade have clearly and sometimes painfully demonstrated that the U.S. economy is open to foreign economic influences. Oil price movements, the debt problems of developing countries, and the emergence of Japan as a major competitor to the United States in world markets are only a few of the most prominent examples of foreign developments that have profoundly affected the U.S. economy. Similarly, it is clear that developments in the U.S. economy and changes in U.S. domestic economic policies can importantly influence economic developments abroad. These foreign developments can in turn produce further changes in U.S. economic circumstances. Changing U.S. policies, for example, brought a sharp increase in the value of the dollar during the early 1980s, which in turn led to a sharp deterioration in the U.S. trade position.

Just as clearly, economic, foreign policy, and national security considerations are increasingly intertwined. Where once it was common to speak only of the economic consequences of geopolitical circumstances, it is now essential to speak also of the geopolitical consequences of economic developments. The success of democracy in some Latin American countries, for example, may depend crucially on the degree of austerity that will be required to keep foreign debt service current. Japan’s role in the politics and the security of the Pacific Basin will be heavily influenced by that country’s economic strength, by its trading relations with other Pacific nations, and by the degree to which U.S./Japanese tensions over trade issues spill over into other areas. Soviet relations with other Eastern Bloc countries will be colored by the latter’s desires for and access to Western goods and Western credit.

Effective policy formation often requires more than just an understanding of current international economic conditions. National
policies cannot be formulated, implemented, or redirected instantly, and failure to anticipate an important development may result in failure to make an adequate or timely policy response. This need to anticipate events is particularly pressing when policies must be coordinated with those of other nations. The need for international cooperation obviously complicates and slows down the work of redirecting policy. Inevitably, though, attempts to anticipate future economic developments are bound to fail at least some of the time. The global economy is immensely complex. Recognizing all its trends and understanding all its mechanisms is obviously impossible. It is bound on occasion to produce surprising developments.

In many instances, then, planning and policymaking will rely less on accurate long-range forecasting—often impossible—than on compiling an inventory of potentially important contingencies and on understanding what policy responses these contingencies may require. If policymakers cannot know which developments will occur and when, they can at least design current policies with an eye toward possible future circumstances. Identifying possible future developments is also the first step toward a more careful inquiry into the likelihood of and the preconditions for such developments; it is the first step toward making better forecasts.

**The Rand Conference on International Economic Surprises**

On December 5 and 6, 1985, The Rand Corporation convened a conference to discuss possible international economic developments during the next ten years. The purpose of this conference was not to forecast the future course of world economic events, but rather to identify plausible, even if unlikely, developments that ought to be borne in mind in current policy deliberations. In particular, we encouraged conference participants to identify potentially “surprising” developments—the likelihood or consequences of which they thought were not sufficiently recognized today. In a sense, the work of the conference was to draw up an agenda for planning and for research; a list of topics that are receiving insufficient attention in policy circles today is almost by definition a list of topics for more careful research and planning.

To encourage intense discussion, the number of conference participants was limited to twenty. In inviting participants, we sought knowledgeable and imaginative observers of the international scene with diverse backgrounds, professional disciplines, and viewpoints. Included among the participants were economists, political scientists, and sociologists. Many of the participants had served in the higher
levels of the federal government, some at cabinet and subcabinet levels. Experience in international business was represented among the participants as was experience with both the theory and the practice of public policy. Nearly all of the participants currently hold or had at some time held academic appointments. The current professional and research interests of participants included international trade and finance; energy and agricultural markets; population, immigration, and labor markets; the processes of technological change and technology transfer; centrally planned economies; terrorism, subnational conflict, and economic warfare; and international diplomacy and national security policy. The conference discussions reflect clearly, we believe, the distinction and the diversity of these participants. A list of the participants and their current affiliations is provided in the Appendix.

Conference discussions were organized around nine principal themes. (The complete agenda for the conference is also reproduced in the Appendix.) One or two conference participants were asked to offer brief introductory remarks on each of these general themes to set the stage for a subsequent general discussion. In choosing these principal themes, we adopted a rather broad view of what constitutes an international economic development. Our discussions ranged from such traditional topics as international trade and finance to distinctly nontraditional subjects such as economic warfare and the meaning of national boundaries. Neither did we restrict our attention to developments that would have exclusively economic consequences; we sought as well to identify economic developments that might have important implications for U.S. foreign and national security policies.

Plan of this Report

This report provides a digest of the conference discussions. It notes the most striking of the potential surprises identified in the course of the conference. The emphasis in this report, as it was in the conference, is on identifying potential surprises that may require U.S. policy responses and on identifying topics for planning and research. Accordingly, this report offers only brief discussions of the implications of particular developments for U.S. interests and policies, leaving these matters for the most part to the imagination of the reader. Where appropriate, we have suggested promising avenues for future research. In addition, this report discusses some possible developments that were not discussed at the conference but which were identified by Rand staff as being potentially important. These latter developments were noted in a discussion paper distributed to all participants before the conference. To encourage free and candid discussion, all conference
discussions were considered off the record. Accordingly, suggestions, arguments, and viewpoints noted in this digest are not attributed to particular participants.

The order in which potential surprises are discussed in this report does not reflect our view or the view of any conference participant about the relative importance or likelihood of the developments described. We deal first with the more traditional subjects of international economic analysis. Later sections of the report move further afield. For convenience, we have divided the main body of this report into eight sections. The subjects of these sections are similar to but not identical with the nine major items on the conference agenda. The organization of the material reflects our own ex post facto grouping of points raised in the course of the conference. The concluding section of the report considers some general themes that ran through all conference discussions.

Needless to say, no list of potential surprises can be in any sense complete. Inevitably, we will be surprised in the future, no matter how prescient we are today. This report represents a digest of discussions that took place at a particular time among a particular group of experts. Other discussions held at another time with other experts would doubtless generate a different list of surprises. We believe, though, that we assembled a group of particularly astute observers of international affairs and that the list of possible surprises that emerged from our conference is an exceptionally rich and provocative one; thus, our desire to make this list available to a wider audience.

The aim of this report is to stimulate thinking about events that might happen. To this end, we have made no attempt to assess the likelihood or the importance of the surprises discussed here. Neither did we ask conference participants to do so. Such assessments, we feel, might concentrate attention on a few possible developments rather than encouraging consideration of a broad range of potential surprises. We have preferred instead simply to lay out the possibilities noted during the conference, leaving their likelihood and importance to the imagination of the reader.

For convenience, we have described these possible surprises as isolated developments, although many are potentially closely interrelated. If some occur, others become more or less likely. In some combinations, the consequences of different surprises will offset each other. In other combinations, one surprise will compound the effects of others. Even a cursory consideration of the possible linkages among the potential surprises would make this report oppressively long. We have preferred to leave these linkages to the reader's imagination.
II. INTERNATIONAL FINANCIAL MARKETS AND CAPITAL FLOWS

International financial markets have produced numerous surprises during the last fifteen years: the collapse of the Bretton Woods system of fixed exchange rates; wide variations in the relative values of currencies; unprecedented real and nominal interest rates; dramatic shifts in international capital flows; failure by some developing countries to service their foreign debts; dramatic increases in the volume of international financial transactions; the near failure of a major U.S. bank; and the apparent loss of monetary autonomy by countries that found their own interest rates and monetary policies increasingly dictated by the U.S. Federal Reserve. It is perhaps a measure of the magnitude of these recent developments that conference participants tended to focus their attention on somewhat less revolutionary developments. Even having lived through the events of the last fifteen years, it seems to be difficult to imagine that equally striking developments may lie in the future. Yet some surprises are certainly possible.

A Banking Crisis

In setting the agenda for the conference, we defined surprises as events whose likelihood or consequences were not receiving adequate attention in research and policy circles. With this definition clearly in mind, a number of participants identified a major write-off of developing country debt by U.S. banks as a potential surprise. At first, this may seem odd. Few economic or financial topics have received such wide attention in the past three years, and there has been no shortage of dire predictions that a major banking crisis lies ahead if these loans are finally and definitively recognized as uncollectable. Nonetheless, some of our participants insisted that planning for such contingencies was still hopelessly inadequate, and that more had to be done.

There seemed to be little disagreement with this last view. A number of participants, for example, expressed discomfort with the so-called "Baker Plan" for easing the situations of debtor countries, generally noting that it is hard to see where such a plan might lead. Perhaps by making the government "responsible," even to a small degree, for LDC (less-developed countries) debts, we might be letting the other concerned parties—private lenders and the debtors themselves—off the hook. The result, it was feared, might be the
creation of a debt “tarbaby” from which the government might never disentangle itself. Others noted that neither the United States nor other industrialized countries had in place mechanisms adequate to deal with a major debt crisis. The Mexican and Brazilian crises had been managed ad hoc, and there is no reason to believe that the difficulties of these countries and their creditors will not resurface. The major drop in world oil prices that was beginning as our conference met provided a dramatic example of how debtor nations’ economic prospects could change radically in very short periods of time.

There was sharp disagreement over the likelihood that a major crisis would one day arise. Some participants flatly argued that loans to many developing countries were worthless and that as a result some major international banks were in truth insolvent. It would be only a matter of time until this became apparent and the insolvency of both debtors and creditors became a technical reality. Attempts by banks to “grow out of” their problem loans (by raising more capital and generally expanding the scale of their operations in order to reduce the relative size of these problem loans) while temporizing with loan reschedulings and other maneuvers were eventually doomed to failure. Others argued that a crisis was far from inevitable, that a combination of renewed economic growth, perhaps somewhat higher inflation, and continued “muddling through” could eventually reduce these problem loans to manageable proportions.

**Transforming LDC Debt into Equity**

Closely related to questions about LDC debt was a suggestion that some portion of this debt might somehow be converted into equity holdings in various enterprises located in LDCs. Banks currently holding loans might be given these equity holdings, which they would then sell; or LDC governments might sell equity positions directly to foreign investors using the proceeds of these sales to retire bank loans.

In some eyes, an arrangement like this would represent nothing more than creative accounting to get problem loans off of banks’ books. The equity positions offered would, it is argued, be worthless, and the only buyers of these equity stakes would be government agencies in industrialized countries or official international financial institutions. Purchase of the equity assets would constitute nothing other than a bailout of banks—a result that could be accomplished more easily by direct means.

But this may be too harsh a judgment. Some suggest that LDCs could create circumstances that might make equity ownership attractive to foreigners. They could, for example, offer such enticements as
freedom from taxation, freedom from certain provisions of local labor or environmental laws, special import and export privileges, and preferential access to government-controlled services such as transportation, electricity, or even police protection.

What makes this possibility interesting and potentially problematic are the political and diplomatic consequences of extending to foreigners the kinds of concessions that would be necessary to attract the necessary investment. Clearly, these concessions would have to be substantial, and they could amount to setting up almost colonial enclaves. Foreign investment on the scale necessary to reduce indebtedness significantly would also sharply intensify foreign interest in the internal policies of debtor countries. Perhaps more importantly, much of this interest would be concentrated in foreign commercial enterprises rather than in foreign governments. The result could be a rather complicated triangle of potentially conflicting host-country, home-country, and corporate interests. To the extent that debt-to-equity transformations might be viewed as at least a partial solution to some LDC debt problems, much more careful consideration of the consequences of such transformations is required.

A Return to a System of Fixed Exchange Rates

Among the more provocative suggestions made during the conference was that we may see in the next few years a return to some sort of fixed exchange rate regime. At least one essential precondition for such a development—a convergence of inflation rates in the major industrialized countries—has already been satisfied. Also suggesting the possibility of a return to fixed exchange rates are obvious governmental and private sector dissatisfaction with the workings of the current “non-system” of exchange rate management, the recent apparent success of the European Monetary System in stabilizing exchange rates among the major European currencies, a new willingness on the part of the U.S. administration to consider means of managing exchange rates, and recent intense, if vaguely focused, pressure to “do something about the yen”—at first as a means of stemming what is widely perceived as a flood of exports from Japan and subsequently to prevent an excessive decline in the value of the dollar.

Despite these circumstances, few observers seem to think that a return to some sort of system of fixed exchange rates is likely any time soon. It seems unlikely that foreign governments and central banks would again assume the burdens of maintaining fixed exchange rates without some mechanism having been put in place to ensure that the United States also bears part of the responsibility for exchange rate
stability. A lack of such a mechanism was largely responsible for the
collapse of the Bretton Woods system in 1971 and of the subsequent
"Smithsonian" system in 1973. No such mechanism has been devised,
and the United States has given no indication that it is willing to relin-
quish any significant part of its economic policy autonomy. Recent
U.S. willingness to "coordinate" exchange rate and interest rate policies
with Germany, Japan, France, and the United Kingdom and President
Reagan's call for a U.S. study of adjustments to the current exchange
rate suggest the possibility of some slow multilateral movement toward
some kind of a system of managed exchange rates. But the work and
negotiating still to be done in this area will be very time-consuming,
and no multilateral agreements can be expected soon.

While multilateral agreement on a new system of fixed exchange
rates might be out of the question for the foreseeable future, conference
discussions raised the interesting possibility of a unilateral attempt by
the United States to reestablish such a system. In this scenario, rising
congressional pressure, a continuing U.S. trade deficit, and perhaps a
new round of currency market gyrations would finally force the U.S.
Treasury Secretary to take radical steps to stabilize the dollar. He
would announce the resumption of dollar convertibility into gold: the
United States would trade gold at a fixed dollar price with any foreign
central bank that agreed to peg its currency to the dollar. If the Bank
of Japan and the major European central banks agreed to this scheme,
the result would be a de facto return to something like the Bretton
Woods system. An international conference would no doubt quickly be
convened to give some sort of multilateral legitimacy to the new system
and to begin what would likely be an unending debate about exactly
who had responsibility for taking what action to maintain established
parities. The essential fact would have been accomplished with the
original U.S. announcement, however. The world would be back on a
fixed exchange rate system.

Whether this kind of scenario is credible or not is a matter of some
debate. Whether a U.S. Treasury Secretary could ever make such an
offer and whether foreign central banks could ever accept it must
remain matters for speculation. What is certain, though, is that a
return to fixed exchange rates accomplished by these means would by
necessity be a surprising event. Any planning for a unilateral move to
restore dollar convertibility would have to be carried out in complete
secrecy. Even rumors that this sort of move was imminent would
seriously disrupt financial markets, perhaps making it impossible to
choose appropriate rates at which to peg currencies in the new system.
China as a Destination for Foreign Capital

The last decade has seen dramatic shifts in the patterns of international capital flows. The United States has become an enormous importer of capital while Japan has emerged as the largest exporter of international capital. The Persian Gulf oil producers have come and gone as important capital surplus countries and are now importers of capital. Latin American development, once fueled by large inflows of foreign capital, has been drastically curtailed as the debt problems of these countries have brought an apparent end to voluntary capital inflows. What capital still flows to these countries seems to be mostly in the form of disbursements from earlier commitments and refinancings to allow continued debt service.

That international capital flows can be extremely volatile is well recognized, and conference participants were unanimous in their belief that further sharp changes in these flows were not only possible but likely. If nothing else, the recent enormous flows into the United States in the last two years will somehow have to come to an end—perhaps a rather abrupt and disequilibrating end.

One shift in international capital flows that received particular attention was the possible emergence of China as a major destination for foreign capital. In a world where fewer and fewer of the countries that need foreign financing are creditworthy enough to attract it, China might prove a striking exception. The need for investment in modern plant and equipment in China is clear, as is the necessity that much of this plant and equipment be imported. If export earnings are inadequate to finance this investment—and this is likely to be the case if rapid modernization is attempted—the only alternative sources of financing are lending by foreigners and foreign direct investment in China. With a very low current debt servicing burden and the potential for substantial export earnings in the future, China may be one of the few opportunities for sound foreign lending and investment available during the coming decade.

The implications of such a development could be far-reaching. The direction of economic policies in China would take on increased significance for foreign lenders and investors. Since the counterpart to a major inflow of foreign capital into China would necessarily be a sharply expanded Chinese current account deficit, China would become a major customer for some foreign suppliers. If the investment programs financed by foreign capital prove successful, China could emerge as a serious competitor for some of the newly industrialized countries of the Pacific rim, countries whose economic and political prospects figure prominently in U.S. national interests. A growing foreign
presence in China and a growing dependence by China on foreign suppliers and customers could also bring changes in China's internal and external political relations.

Another surprise should perhaps be noted in this context. Recent efforts by China to open and to liberalize its economy have produced widespread optimism about China's economic prospects. There seems to be a general consensus that lending to China is a prudent and profitable line of business. But China's economic future—particularly its future as a major exporter—is far from certain. Political or economic events could sidetrack what looks at the moment like promising economic developments. Those who count too heavily on China's emergence as a major exporter—like those who counted too heavily on $50 per barrel oil—may be in for a painful surprise.

**Capital Flight and Repatriation**

Increasing integration of national financial markets in recent years has facilitated the international movement of funds. In particular, it has facilitated capital flight—the movement of financial assets from one country to another, often in the face of changing political circumstances, in an effort to protect the value or the liquidity of those assets. The last few years have seen several examples of large-scale capital flight. In the early 1980s, for example, funds flowed to the United States from Europe in response to fears about Soviet intentions in Poland and the coming to power of Socialists in France and Italy. Large amounts have apparently been transferred (often illegally) to the United States by wealthy Latin Americans seeking to protect their assets from the effects of austerity programs, exchange controls, and income redistribution schemes. Concerns over the future of Hong Kong led to a dramatic outflow of capital that destabilized the Hong Kong dollar, disrupted the local real estate market, and brought the collapse of prominent Hong Kong firms. A similar flight of capital from South Africa may be under way today.

These capital flows can have significant consequences, sometimes welcome and sometimes not. The inflow of foreign capital in the early 1980s, for example, made it easier to finance the emerging U.S. external deficits, allowing U.S. interest rates to remain lower than they might otherwise have been. On the other hand, the flight to U.S. financial markets and to dollar-denominated assets more generally contributed to the dollar's rise, creating difficulties for U.S. export and import firms and a new irritant in U.S. economic relations with our industrialized allies. Capital flight has also drained the foreign exchange holdings of some debtor countries and complicated their efforts to service their foreign debts.
Repatriation of flight capital can also have significant effects. Some capital that has fled to the United States in recent years—say, from Hong Kong or from South Africa—will probably never go home. But the much larger amounts from Western Europe might be rather suddenly withdrawn as political circumstances in either Europe or the United States change. The results could be upward pressure on U.S. interest rates and a declining dollar. (The dollar’s recent decline might suggest that some flight capital is indeed being repatriated.) On the positive side, one might hope that funds might be repatriated to debtor countries, easing their burdens.

The point of all this is that changing political conditions abroad can trigger large international capital flows, which in turn can have significant effects on U.S. and international financial markets. In many cases, these capital flows will come as surprises because we have not foreseen the political developments that give rise to them. As a consequence, U.S. financial authorities may sometimes have difficulty forecasting or coping with developments in dollar financial markets. These observations prompted a half-joking comment during our conference about the urgency of the tasks likely to face various U.S. cabinet officers in the event of a major political upheaval. If some sort of crisis affecting the Persian Gulf were to arise during the Washington night, it was suggested, it might be quite all right to allow the U.S. Secretary for Energy to sleep undisturbed. There would, after all, be little he could do in the face of the impending crisis. The speed with which financial markets would react, however, and the consequences of this reaction for the U.S. economy would be such that the Secretary of the Treasury should be awakened immediately.

None of our participants suggested that it was either feasible or desirable to insulate U.S. financial markets from the effects of foreign political developments. Several, however, expressed a desire for better monitoring of foreign-controlled assets in the United States. Such monitoring might allow U.S. authorities to anticipate better the financial implications of certain foreign events. In extreme cases, it might facilitate the execution policy. Several participants noted that when U.S. authorities tried to freeze Iranian assets during the hostage crisis, they had trouble identifying just which assets were to be frozen.

One particularly interesting suggestion that arose in this regard was that the United States might find it advantageous to adopt a policy of refusing to share information about individual financial transactions with foreign monetary or tax authorities. In return for this guarantee of confidentiality, U.S. authorities could demand a much more thorough registration of foreign assets in the United States. This would allow more thorough monitoring of potentially volatile capital
flows and perhaps facilitate financial measures (like freezing assets) that are adopted from time to time in support of U.S. foreign policy objectives. Such a policy would, however, almost certainly lead to a refusal by foreign authorities to assist U.S. investigations of international financial dealings. The advantages and disadvantages of this kind of policy might make an interesting research question.
III. INTERNATIONAL TRADE PATTERNS AND THE INTERNATIONAL TRADING REGIME

Questions about the operation of the international trading system and the U.S. role in it are popular current topics for academics, politicians, business leaders, and the general public. Vigorous action to reduce the very large U.S. trade deficit is routinely urged, even if it is unclear exactly what sort of actions would accomplish this end. Debate—more lucid at some times than at others—continues over whether the current poor trade performance of the United States is simply the result of an unfortunate conjunction of cyclical factors or whether it is an indication of a secular decline in U.S. competitiveness. The need for debtor countries to be able to export in order to service their debts is increasingly recognized, yet most observers have difficulty forecasting which countries might willingly accept the requisite volumes of imports. And all the while, preparations are being laid for a new round of multilateral trade negotiations, negotiations that will focus on such difficult issues as trade in agricultural products and in services.

Given the current attention on trade issues, it is perhaps not surprising that conference discussants noted a particularly rich set of potential surprises in the patterns and nature of international trade. Clearly, our participants had thought a great deal about trade-related issues, and this thought led to an unusually interesting set of speculations.

Who Will Make Trade Policy?

Several participants noted the inevitable tension that arises between multinational enterprises and national governments over where goods are to be produced and sold. Economic realities increasingly favor operations on a global scale, and multinational enterprises face growing pressure to distribute production in search of lower costs, to implement product changes on a worldwide basis, and to amortize R&D costs over global markets. The policy agendas of national governments, however, may be quite different, directed towards maximizing local income and employment and promoting the growth of particular domestic industries. Where multinational firms seek low-cost procurement, governments may demand local content. Where firms may seek to substitute
capital for labor, governments may insist on local job creation. Where the competitive environment requires the rapid introduction of new technologies and products worldwide, public policy may require export controls on one side and market protection on the other. The interests of multinational firms cannot be coincident with the interests of all the nations with which the firms must deal, and increasingly they may not be consistent with the interests of any nation. The stage is set, then, for a struggle between governments and multinational enterprises over which will determine future patterns of production.

As the economic importance of multinational enterprises grows, the balance of power in this struggle will likely shift away from governments, and particularly away from smaller governments. Government leverage in dealing with multinational firms arises ultimately from the ability of governments to deny access to their national markets. A firm dissatisfied with the policies of a particular government can (and increasingly will) relocate production. But to sell its products in any country, the firm must come to terms with the government. Clearly, the extent of governmental power of this sort is dependent on the size of the national market that a government can offer or withhold. The trend in the future may be for multinational enterprises simply to "opt out" of countries whose governments seek to place too many restrictions on access to their markets. Even the threat of expropriation is weakened by the growing tendency of firms to do business in foreign markets through licensing arrangements, management contracts, information processing, and distribution services. The assets required for such business are less vulnerable to expropriation than is a plant owned outright by the parent company.

Thus, we may be entering an era in which the power of governments in all but the very largest countries to influence global patterns of production and trade is significantly reduced. Such a development would not really be surprising. The real surprises might lie in the actions that governments might take in efforts to retain the control they have enjoyed in the past and in the behavior of very large multinational firms as they enter directly into the process of making international economic policy. This may be a particularly fruitful area for future research.

Are Low Wages Enough?

Among the most widely recognized and commented on economic phenomena of the postwar period has been the continuing shift of employment in "basic" industries from the advanced economies of Europe and North America to developing economies. The primary
impetus for this shift, of course, has been the lower labor costs characteristic of developing countries. Products whose manufacture requires large amounts of semi-skilled labor—textiles, apparel, shoes, electronic components, and small household appliances are the most prominent examples—are increasingly made outside what we generally think of as the industrialized world. This process has gone on for so long and seems so natural that we have grown to regard the continual shifting of industrial employment to less-developed countries as an inevitable consequence of global economic growth.

But this may be too simple a view. Among the more striking hypotheses raised during the conference was that a combination of technological progress and a changing mix of goods and services produced in the world economy is bringing an increase in the capital intensity of overall economic activity. A consequence of this development is that investment in relatively low-wage and low-skill areas may be less attractive in the future than it has been in the past. Increasingly, this hypothesis concludes, investment and employment growth will occur in areas such as the United States, Japan, and Western Europe, where the education and technical sophistication of the labor force will permit use of the most advanced production techniques and where markets for an array of newly developed, highly technical products are most likely to grow.

The consequences of such developments could be dramatic. The high-wage countries of the traditionally defined industrialized world could be in for a new round of strong economic growth. The newly industrialized countries of the Pacific Basin might find themselves precariously balanced, the most advanced continuing to attract the investment necessary for future growth while the more backward lose investment and see their previously rapid growth rates slow. For most of Latin America and Africa (and perhaps for their creditors) these developments would spell disaster. The principal resource that these countries have is cheap, abundant, unskilled and semi-skilled labor. If the value of this resource fails to keep pace with the costs of imports, the gap between living standards in these countries and in the developed world will widen, perhaps with serious political and military consequences.

That this kind of scenario could really come to pass is at this stage only informed speculation. What kind of labor force will be required in the future? Will the demand for highly educated and highly skilled workers really grow faster than the demand for unskilled and semi-skilled labor? Or will the increasing capital intensity of production allow lower-skilled workers to perform functions now reserved for the highly skilled?
The Growing Attraction of Organized Trade

Serious concern was expressed during our discussions over the prospects for continued operation of an international trading regime based on the liberal principles of the General Agreement on Tariffs and Trade (GATT). Among the particular threats that were noted was what seemed to be a growing acceptance in elite opinion of the concept of "organized" trade—trade governed not primarily by market forces but instead by agreements among governments. Some recent examples of organized trade are: the Multifiber Agreement, which sets limits on imports of textiles and apparel into developed countries and allocates opportunities to supply these products among a variety of developing nations; a variety of international agreements that set prices for such basic commodities as sugar, cocoa, and coffee; "voluntary" export restraints such as the recently expired agreement by Japan to restrict automobile exports to the United States; and a variety of "counter-trade" and "offset" arrangements whereby imports of specified products are balanced by exports of others.

Current interest in an extension of organized trade derives from a variety of sources. Perhaps the most important is the widely perceived difficulty of making further progress toward what might be considered truly "free" trade through traditional channels—that is, by reducing overt trade barriers. Previous rounds of trade negotiations have reduced tariffs and overt quantitative import restrictions dramatically. Yet a variety of government policies ostensibly instituted for reasons other than inhibiting foreign access to domestic markets (product standards codes, health and safety requirements, import documentation regulations, and so on) and established national ways of doing business still deny foreigners entry into important domestic markets. Reducing such barriers to trade through the application of traditional GATT principles is a slow and frustrating business, and many observers are beginning to give up hope.

U.S.-Japanese trading relations provide a particularly clear example of how difficult it can be to achieve "fair" trade. American firms complain (probably legitimately) that they are excluded from dealings with Japanese firms because of the closed nature of Japanese business relationships and the Japanese preference for dealing with suppliers with whom they have established relationships. Japanese firms wishing to do business in the United States, they point out, face no such barriers, and trade between the two countries is thus inherently unfair. The Japanese competitors of these American companies point out (also with justification) that American companies are impatient, that they have failed to learn the language and the methods of Japanese
business, and that if they were to devote themselves to gaining a foothold in Japanese markets as the Japanese have done in American markets, they would find no discrimination. No doubt the current tension between the United States and Japan has led to some exaggeration of the difficulties that American firms face in Japan. The fact remains, however, that linguistic and cultural barriers do hinder the operations of U.S. firms in Japan, and no amount of negotiating under the auspices of the GATT will eliminate these barriers. What good then, some would argue, is it to seek "fairer" trade with Japan through traditional channels? If we want to reduce the U.S. bilateral trade deficit with Japan, better to sit down and negotiate explicitly which Japanese exports will decrease and which U.S. exports will grow.

As general obstacles to trade such as tariffs and quantitative restrictions have been reduced, the remaining problems become more specific to particular products and to trade between particular countries. Product standards or documentation requirements that may cause no problems for certain kinds of trade may, for example, stand as significant barriers to other kinds. Faced with the necessity of negotiating these details product by product and country by country, governments may be tempted to take the apparently more direct route of simply negotiating an acceptable level of trade in particular classes of commodities with each of its trading partners.

Concern over international financial conditions may also encourage attempts to negotiate and to regulate international trade patterns. Both the United States and Europe, for example, have strong interests in making sure that debtor countries can export sufficiently to service their debts. But whose responsibility is it to accept the necessary imports? One might imagine some future agreement between the United States and the European Community setting minimum levels of imports from particular debtor countries.

Conference discussions identified a variety of other ways in which organized trade might become more prevalent. The above examples suffice, however, to give the general flavor of the concern. A world in which organized trade has replaced market-oriented trade to any large degree is a world rather different from the one we have experience with, and the economic and political consequences of such a development are almost certain to be surprising.

**The Need for Interim Progress in Trade Negotiations**

The next round of multilateral trade talks will be much more complex than any previous round. More countries with more divergent
interests will debate a wider variety of more difficult issues than ever in the past. Six years were required to complete the last round of trade talks, the so-called Tokyo Round, and few observers expect that the next round can be completed by the end of the century. As noted above, interest in alternatives to the traditional multilateral, market-oriented trade negotiations of the past is growing, and some have expressed doubt that another full-scale round of multilateral trade negotiations will ever be completed.

Few nations, however, are willing to turn their backs on the traditional multilateral approach to trade issues. The United States, for example, seeks broad new international agreements on trade in services. And many developing countries perceive that it is only in a multilateral context that their needs will be recognized; none of them represents a sufficiently large market by itself to wield much power in bilateral talks with the major industrial powers. An attempt to begin and to complete at least one more round of multilateral trade negotiations will therefore almost certainly be made.

To maintain political support for negotiations which may stretch on for years, negotiators will have to be able to demonstrate to their national constituencies that some progress is in fact being made and that benefits are accruing to participating nations even before the entire package of agreements is concluded. This need for interim results will introduce new dynamics into the negotiating process that are likely to make final results hard to predict. One relatively attractive method of allowing interim progress would be to negotiate trade concessions with “snap-back” provisions: nations would begin one by one to observe new rules of behavior while reserving the right at some future time to “snap-back” to old operating rules if a sufficient number of other countries does not adopt the new set of principles. A more disturbing possibility is that the search for interim results will force the conclusion of a variety of bilateral or “plurilateral” agreements covering specific commodities, turning the multilateral negotiations into little more than a framework for legitimizing a movement toward more organized trade and ultimately defeating the purpose of the multilateral trade round.

New Nations in the International Trading System

Another threat to the traditional GATT framework for international trade is the growing importance in international markets of countries that are not members of the GATT and whose membership might be difficult to accommodate in the present GATT structure. The most
prominent of these new trading nations is China. China’s vast potential both as importer and exporter will, if it is ever realized, radically alter established trade patterns, affecting the fortunes and the prospects of industries in many other countries. Change of this magnitude cannot be expected to take place without creating tensions and disputes. The size and political importance of China require that there be some sort of shared understanding of the terms on which Chinese products will enter world markets and the terms on which China will accept foreign products. Without such understanding, China’s entrance into the larger global trading system will bring a chaos of competing bilateral arrangements with particular trading partners—a situation that will benefit few and that could possibly lead to serious diplomatic tension.

The problem here is that the set of basic principles for international trade to which most nations now subscribe, the GATT principles, are largely inapplicable to the case of China. The basic premise of the GATT framework (observed perhaps more often in the breach than otherwise) is that trade should be determined by market forces and that government interference in trade through subsidies and quantitative controls should be kept to a minimum. How such principles of non-interference are to be applied to what is still largely a centrally planned economy is problematic. It is hard enough for the present GATT community to agree on what constitutes unfair subsidies by, say, European Community governments to their national steel industries. How are we to know whether textiles produced in state-owned mills in China are or are not being inappropriately subsidized?

Some centrally planned economies do subscribe to GATT principles already. The trade of these nations (Poland and Yugoslavia are examples) with other GATT members is sufficiently small that the problems inherent in applying GATT rules to centrally planned economies have been largely ignored. This is unlikely to be possible in the case of China.

An interesting potential problem along these same lines was suggested by a participant who speculated about the consequences of adoption by the Soviet Union of economic reforms as sweeping as those we have seen recently in China. If in the process the Soviet economy became more open and trade oriented, many of the same issues of how to set trading rules for non-market economies would be raised. The difference from the Chinese case would arise because the Soviet economy is more heavily industrialized than the Chinese economy. Different industries in different countries would be threatened by an emerging Soviet trade presence. Those most at risk from expanded Chinese imports would likely be light manufacturing industries in the
newly developed countries, while the industries threatened by Soviet exports would probably be the aging “smokestack” industries of Western Europe. The political as well as the economic implications of an opening of the Soviet economy might, therefore, be rather different than those of the current Chinese reforms.

Mexico’s emergence as a major trading nation may also present special problems for the GATT framework. Not now a member of GATT, Mexico must export heavily in the future if it is to service its enormous foreign debt. As its oil revenues decline, Mexico’s exports will have to take other forms, and many of Mexico’s most promising opportunities for export growth will be in commodities—agricultural products and apparel, to name only two—that have proved particularly difficult in the GATT framework. Perhaps more problematic is the inevitably bilateral nature of Mexican trade. Mexico’s proximity and political importance to the United States make Mexican trade policies a particularly U.S. concern, and perhaps both Mexico and the United States will prefer to negotiate these policies outside the multilateral framework of the GATT. Among the more specific surprises suggested during the conference was the possible emergence sometime in the near future of some sort of North American free trade area, beginning perhaps with an agreement between the United States and Canada to drop all trade restrictions between them, and with the eventual extension of membership to Mexico. The economic and political consequences of such a trade area and the problems of keeping it functioning might rival those associated with the European Community.

Another potentially problem country is Saudi Arabia, also not currently a member of GATT. In recent years, the Saudis have shown interest in developing a major petrochemical industry, hoping to export at least a part of their crude oil in a more valuable form. The problem here is that Saudi Arabia has in the past played (and perhaps still does play) a major role in maintaining the price of crude oil, the basic feed stock for the petrochemical industry, above the level that would be set by world markets. If Saudi petrochemical producers have access to crude oil at less than world prices, they will have a substantial advantage over other producers. How are both Saudi oil pricing policies and Saudi aspirations to become a major exporter of petrochemicals to be accommodated within the present GATT framework?

**Agricultural Trade**

Policies affecting agricultural trade are also likely to produce surprises in the coming years. Past rounds of trade negotiations have
not dealt effectively with agricultural issues, and most industrialized countries still maintain extensive and expensive programs for supporting the prices of agricultural commodities and subsidizing their export. Surprises are likely because something will almost certainly have to give during the next few years; dramatic changes in current agricultural policies must be expected. Agricultural products are sufficiently important in world trade that any major policy shift by the larger producing countries is bound to have important international effects.

The most pressing reason for changing agricultural policies is that in many countries current policies have become budgetarily unsustainable. With the United States facing large reductions in federal spending in the effort to reduce the federal deficit, the $25 billion annual cost of current farm programs will come increasingly under attack. The European Community's Common Agricultural Policy already absorbs two-thirds of the entire Community budget, and limits on Community revenues make reduction of outlays for agriculture a precondition to expanding Community spending in other areas.

Continued rapid biotechnological progress promises to add further to the costs of current programs if major adjustments are not made soon. The costs of current crop price support programs could rise sharply, for example, in the face of increased yields that result from continued progress in genetic engineering. Further progress in the production of, say, artificial sweeteners could deal yet another blow to an already reeling world sugar market—arguably the agricultural market already most distorted by an array of government policies. Where demands for fiscal responsibility have failed to bring about more rational farm policies, perhaps scientific progress will.

It is impossible to foresee how agricultural policies in the major industrialized countries will develop over the next few years. The history of the most recent U.S. farm bill provides ample evidence of the odd twists and turns that agricultural policies can take on their way toward political acceptability. That these policies must change soon, however, seems beyond question.

Colonial Trade Patterns

Finally, an interesting speculation was offered concerning changes in trade patterns that might arise from increased trade in services. Trade in services, it was pointed out, often requires considerably more communication between buyer and seller than does trade in goods. This communication is facilitated if both parties to the transaction speak the same language. One might therefore expect that trade in
services would grow most rapidly between countries sharing a common language, a characteristic of industrialized nations and their former colonies. With the growth of trade in services, then, we might begin to see trade more oriented along linguistic and former colonial lines than is the case today.
IV. MACROECONOMIC CONDITIONS
AND POLICIES

During the seventies, individuals, firms, and governments borrowed heavily in the belief that the governments of the major industrialized economies would never sacrifice economic growth to combat inflation. These governments (first in the United Kingdom and the United States and later in Germany, Italy, France, and Canada) surprised many observers by adopting a variety of aggressive anti-inflation measures. Among the results were unprecedented interest rates, the most severe recession since the Great Depression, and sharply lower inflation rates. Mistaken forecasts about the direction of policy and the consequent prospects for interest rates, economic growth, and inflation led to a wave of personal and corporate bankruptcies, concern over the quality of bank loan portfolios, grave difficulties for developing countries in servicing their external debts, and highly volatile financial markets.

Another round of major changes in the direction of macroeconomic policies may face us in the next few years. Enormous federal deficits and the departure from the government of the “true believers” has brought an end to the fever of “supply side” economics that marked the early years of the Reagan administration. Similarly, subsidence of inflation as a major current problem in most of the industrialized world, the apparent volatility and unpredictability of monetary velocity in many countries, demands for lower interest rates, and the need for some form of macroeconomic stimulation during what is expected to be a period of relative fiscal austerity have brought some drawing back from the monetarist principles that were the foundation of macro policies in a number of countries during the late seventies and early eighties. The United States, for example, has for a year and a half now allowed money supply growth far in excess of targets set by the Federal Reserve, and the United Kingdom has officially abandoned targets for monetary growth.

The political climate also seems to be changing in the major industrialized economies. The end of the Reagan administration is now clearly in sight, and uncertainty surrounds the fundamental economic orientation of potential successor administrations. The Thatcher government is doing badly in public opinion polls and is riven with internal disputes; informed opinion gives the opposition Labour Party, with a radically different economic agenda, a realistic chance of
regaining power in the next general election. French Socialists lost control of the National Assembly in the recent election, and questions have been raised about President Mitterrand’s ability to complete his seven-year term. The West German government of Helmut Kohl has been shaken by recent non-economic developments, and the opposition Social Democrats have chosen a new and untried candidate for chancellor. Japan is feeling increasing pressure from its trading partners to make basic changes in the operation of the Japanese economy to open it to foreign goods, and in the normal course of Japanese politics, Prime Minister Nakasone is almost certain to be replaced (but by whom?) in the next year.

In this environment, we face the undoubted possibility of further shifts in the macroeconomic policies of the major industrialized countries. The experience of the past seven years confirms that these shifts can have profound implications not only for economic conditions but also for relations among nations. Public and private planning during the next few years will have to take account of these possibilities for change.

Conference discussions generally did not focus on how policies might change in particular countries. There was little discussion, for example, of how Democrats in the United States, Labour in the United Kingdom, or Social Democrats in Germany might alter economic policy. There was, however, considerable discussion about the nature of macroeconomic problems that will have to be faced in the coming decade and the attitudes and policy levers with which governments will face these problems. Some of the more prominent macroeconomic concerns raised in our discussions are described below.

Impatience with the Policy Process

Perhaps the greatest source of uncertainty about macroeconomic policies arises from a widely perceived impatience with the process by which they are devised and implemented. This impatience is not a new phenomenon. When faced with rapid and accelerating inflation, many countries have found the apparently simple and straightforward step of introducing price controls politically preferable to the complex, difficult to explain, and slow-acting fiscal and monetary policies that would eventually slow inflation. As inflation has faded in the public view as the principal macroeconomic ill, concern has increased over other problems. In the United States, Canada, and Japan, the size of central government deficits and (not unrelated) imbalances in external accounts have become the major concern. In Europe, the problem is unemployment. If anything, the policy process moves more slowly in
dealing with these problems than it did with inflation. The appropriate policies for fighting inflation were widely recognized. They were not implemented in many cases because they were simply too slow and unpredictable in their consequences to be politically feasible. In contrast, there is no “right” approach to cutting government spending or raising taxes; difficult fights inevitably erupt over which programs should be cut or whose taxes should be raised. Similarly, steps cannot be taken to eliminate an external imbalance without affecting economic conditions in other countries; reducing trade imbalances is necessarily a multilateral undertaking. And it is becoming increasingly apparent that the major increases in employment will require large-scale (and as yet not fully specified) changes in social conditions, industrial structures, and relative wages. Correcting today’s economic ills will be a slow and painful process. The result, some fear, will be growing impatience with the policy process and a growing tendency to substitute (over-)simple and often draconian policies for more carefully considered ones.

The clearest example of this sort of development has been the passage of the so-called Gramm-Rudman-Hollings legislation in the United States. If the Congress and the President fail to agree on budgets that shrink the federal deficit by prescribed amounts in future years, this legislation provides for automatic spending reductions, with cuts being spread evenly (with some important exceptions) across all budget accounts. Legislation has already been proposed requiring similar automatic, across-the-board reductions in imports if targets for reducing the trade deficit are not achieved by other means.

How the provisions of the Gramm-Rudman-Hollings legislation will operate in practice is unknown. The constitutionality of the legislation has not been established. If the legislation stands, its effects could be profound, either by bringing arbitrary reductions in federal spending or by substantially altering the political process by which budgets are arrived at. The uncertainties arising from the international economic environment will be minor, some observers have noted, compared with those that may be generated by the operation of an untried and radically different budget process within the United States.

Major surprises may also lie in the extension of principles like those embodied in the Gramm-Rudman-Hollings legislation to other economic issues or to other countries. The U.S. government deficit is, after all, not the largest as a fraction of GNP in the industrialized world, and the burden of servicing the U.S. public debt is lighter than in many other countries. Moreover, other industrialized countries have political systems much more prone to deadlock over macroeconomic policy issues than does the United States. One might wonder what the
consequences would be if Gramm-Rudman-Hollings-style legislation were adopted in other countries as an alternative to what may often appear to be endless and fruitless political debate over economic policy.

A Return of Inflation

A number of participants noted the dangers inherent in extrapolating current conditions into the future. They suggested that a good way to identify potential future surprises is to imagine what might happen if the conventional wisdom about the future turns out to be incorrect.

One element of the conventional wisdom that received particular attention was the assertion that double-digit inflation in the major industrialized countries is a thing of the past. A widely held view is that the experiences of the late 1970s and early 1980s have sensitized (perhaps oversensitized) financial markets to the implications of inflation. Lenders, badly burned by the inflation of the recent past, have developed much more cautious attitudes toward fixed-rate lending and have devised a variety of new floating-rate lending instruments. They have also, it seems, begun to watch much more carefully for the alleged preconditions of inflation. In particular, financial markets appear to have become obsessed with the growth rates of national money supplies, the key to inflation in the simplest versions of monetarist theory. The result has been that the slightest indication that inflation may be returning or that money supplies may be growing too fast brings forth a sharp rise in interest rates. This in turn slows economic activity to the point at which the threat of inflation vanishes. The sensitivity of financial markets to early inflation indications and to monetary growth rates may have declined somewhat during the past year as inflation fears have subsided. There remains, though, a widespread view that the major industrialized economies may have been "immunized" against inflation, at least for the next decade or so. The reaction of financial markets to the first signs of returning inflation will guarantee that the next round of inflation simply does not happen.

The consensus among conference participants was that the above view of the world is basically correct. None expected a new surge of inflation any time soon. All believed, therefore, that a rekindling of inflation would indeed be a surprise. None, however, completely excluded the possibility. Some noted, for example, that the rather simplistic monetarist views that lie behind the recent fixation on monetary indicators had become somewhat discredited. The U.S.
money supply, they noted, grew well in excess of Federal Reserve targets during 1985, and there were as yet no signs of resurging inflation in the United States. Perhaps more importantly, financial market reaction to this most recent round of monetary expansion had been quite restrained—nothing like we might have seen in, say, 1983. Perhaps the sensitivity of financial markets to possible inflation has been exaggerated; perhaps the “immunization” against inflation has been much shorter-lived than we had expected.

Other participants noted the emergence of potentially powerful constituencies with a clear interest in higher rates of inflation. Debtors—both sovereign borrowers and private firms—who had borrowed in the hopes of repaying their loans in deflated currencies have suffered greatly as a result of the sharp decline in world inflation rates. The results are well known: international crises followed by debt reschedulings; growing volumes of nonperforming assets on banks' books; and a consequent loss of confidence in major lending institutions. This last reflects a growing realization that in the current environment lenders are as much at risk as borrowers. Increasingly, inflation is seen as a means of effectively reducing the size of today's problem debts without forcing massive (and in some cases surely fatal) write-offs by lenders. During the early 1980s, the political consensus throughout most of the industrialized world was that inflation was sufficiently dangerous to justify rather harsh anti-inflation programs, even if these programs brought slower economic growth and higher unemployment. Today, this consensus may be eroding, and support for a return to economic growth even at the cost of higher inflation may be growing. Inflation may soon become politically acceptable again.

Whereas more rapid economic growth and somewhat higher world inflation rates might ease some of today's most pressing economic and financial difficulties, a return to higher inflation could bring a host of problems not much considered during the past few years. It could also bring some striking new developments in the form of political realignments both within countries and among countries as the relative burdens of servicing outstanding debts allow the relaxation of current disciplines and the redirection of national economic policies. A great deal of attention in both the public and the private sector is currently and correctly focused on how to deal with the problems brought on by reduced inflation rates. It would probably be worth bearing in mind, however, that this period of disinflation will not last forever. It might, in fact, end rather soon.
Where Will World Monetary Policy Be Determined?

Some interesting speculation arose during the course of the conference concerning the independence of national monetary policies. During the early 1980s, it appeared that the U.S. Federal Reserve was to a large degree making monetary policy for the entire industrialized world. When U.S. interest rates rose, foreign central banks were forced either to raise their own interest rates or see their currencies decline against the dollar. The degree to which individual central banks felt compelled to match U.S. interest rate movements varied depending on the degree to which their domestic credit markets were integrated with dollar credit markets and on their levels of concern over the inflationary consequences of a declining currency. In every industrialized country, however, interest rates rose and fell at least roughly in parallel with U.S. interest rates. In most countries, both real and nominal interest rates reached unprecedented levels, largely as a consequence of an aggressive program of monetary restraint in the United States.

Conference discussants noted that the role of the world's dominant central bank had passed—probably sometime during the 1930s—from the Bank of England to the U.S. Federal Reserve. Speculation arose over whether some other central bank, most probably the Bank of Japan, might within a few years supplant the Federal Reserve as the principal maker of international monetary policy. Clearly, the yen is playing an increasing role in world finance, and Japanese financial market liberalization is strengthening the links between Japanese and foreign financial markets. Japan's share of world trade continues to expand and one might expect other countries to show increasing concern about the consequences of exchange rate movements vis-à-vis the yen. This concern would increase further if important commodities began to be priced in yen rather than in dollars—an increasingly likely possibility as Japan comes to account for a larger share of commodity imports. Finally, simple growth of the Japanese economy will make Japanese suppliers and demanders of funds more important in international financial markets.

Whether these conditions could conceivably lead to policy dominance for the Bank of Japan during the next few years would be an interesting area for research. The consequences of such dominance might also deserve consideration, both with respect to the ability of U.S. monetary authorities to chart an independent course and with respect to the structure and operation of international financial markets. These questions might be of considerable interest to current U.S. policymakers who are actively engaged in encouraging the liberalization and the internationalization of Japanese financial markets.
Even if the Bank of Japan exercises something less than clear dominance over international monetary conditions, the growing importance of the yen and of yen financial markets may complicate the tasks facing U.S. monetary authorities. To the extent that yen financial markets and Japanese monetary policy come to constitute an independent pole in international monetary affairs, failures to coordinate U.S. and Japanese economic policies may lead to large fluctuations in the dollar/yen exchange rate and to large and destabilizing flows of funds between yen and dollar capital markets. (The recent sharp decline of the dollar against the yen suggests that this situation may already be developing.) An unstable relationship between financial markets of the free world's largest economies will be in neither country's interest, and both U.S. and Japanese authorities are likely to find their freedom of action restricted by the need to coordinate policies.

Volatility in Trade Patterns

The fundamental causes of the very large U.S. trade and current account deficits of the past few years are easy to identify: a strong dollar, which made U.S. products uncompetitive in world markets, and relatively rapid economic growth in the United States after the 1981–82 recession and the attendant rise in U.S. demand for foreign products. Given the circumstances, U.S. trade and current account deficits is not surprising.

What has been surprising, though, is the size of these deficits and the speed with which they emerged. The growing "internationalization" of markets for goods and services has continually exposed new industries to international competition and has opened new opportunities for disposable income to be disposed of abroad. The result has been an increased sensitivity of the U.S. international accounts to changes in exchange rates and to differential rates of real economic growth. Although most observers would have acknowledged that such processes were at work during the late 1970s, few had adjusted their economic models to take account of these developments. Neither had current theories anticipated that the dollar could have remained as strong as it did in the face of rapidly growing U.S. current account deficits. The results of these forecasting errors were repeated surprises as the U.S. external accounts became more and more unbalanced and there was a rush to devise policies to deal with these imbalances.

But the same internationalization of industries that allowed an explosion of the U.S. external deficits could, a number of participants noted, shrink or reverse these deficits again rather quickly. The dollar has already declined substantially from its peak in early 1985,
improving the competitiveness of U.S. products. Similarly, the possible changes to economic policies noted in the introduction to this section could bring significant changes in the relative growth rates of major countries, bringing in turn major changes in their external positions. Just as rapidly as they appeared, the external deficits that are a central macroeconomic concern today might disappear.

If this comes to pass, a major redirection of U.S. policy might be required. Considerable amounts of U.S. influence and diplomatic energy have been invested in recent years in encouraging other nations to open their markets to U.S. goods and to restrain their own exports to the United States. One wonders how quickly and gracefully U.S. policies could be shifted to encourage a flow of imports or to restrain our own exports if this should become necessary to preserve economic stability in, say, Europe or Latin America. U.S. political interests in these areas might outweigh the purely mercantilistic advantages of exporting more. The danger lies in becoming so concerned with the problems inherent in U.S. deficits that we fail to recognize that equally difficult problems may rather quickly arise because of future U.S. surpluses.
V. CRITICAL INTERNATIONAL MARKETS:
ENERGY AND AGRICULTURE

Supply disruptions and price shocks can occur in any commodity market and can bring problems for particular economies. The markets for two particular classes of commodities, however, are sufficiently central to global economic activity and are potentially of such political importance that supply shocks or long-term trends in these markets can have important effects on the shape of the global economy. These are the markets for energy and for agricultural products. Both have been of recent concern. Oil prices have fallen sharply, raising questions about the financial stability of oil exporting countries, of firms engaged in oil exploration and refining, and of the banks that have lent heavily to the oil industry or to oil-producing countries. A highly visible famine in Africa has raised both political and economic concerns at the same time that the United States and the European Community are seeking ways to reduce the costs of their agricultural price support programs. There seems to be a widespread perception that neither energy nor agricultural markets are in any kind of long-term equilibrium, that conditions in these markets are almost certain to change in significant ways. The recent past has taught us that we cannot easily forecast these developments; both energy and agricultural markets are likely to be important sources of surprises during the next decade.

Higher Energy Prices

Declining oil prices have been welcomed by many. These lower prices, however, have caused just as much disruption of international financial markets, national aspirations for economic growth, corporate planning, and international political relations as did the earlier rises in oil prices. The underlying cause of these disruptions was the same in both cases: oil prices did not behave in the way that many expected them to. Major movements of oil prices in either direction remain possible, and both rises and further drops could bring further dislocations. Current attention, however, seems to be almost solely on the consequences of declining or continued low energy prices. Surprises are thus more likely to come from another round of increasing oil prices.

Perhaps the most important element in scenarios that feature rising oil prices is OPEC’s continuing ability to maintain oil prices above free market levels. Repeatedly, our participants questioned the conven-
tional view of OPEC as an organization whose day has passed. The
lesson to be learned from recent history, they argued, is not how weak
OPEC is, but rather how strong it is. True, oil prices have fallen. But
the consensus was that, all things considered, until early 1986 OPEC
had succeeded to a remarkable degree in restraining these declines.
Even the very sharp declines in oil prices early this year might be
viewed as a sign of potential OPEC strength. These sharp declines
were largely the result of a conscious effort on the part of Saudi Arabia
to reestablish discipline over production levels. The apparent Saudi
intention is to maintain very low prices until sufficient other
producers—both within OPEC and outside it—agree to curb production
or are driven out of business. This is obviously a bold gamble for
Saudi Arabia; but if it succeeds, the role of OPEC in determining world
oil prices and the role of Saudi Arabia within OPEC will be signifi-
cantly strengthened.

Whatever the outcome of the current oil price war, time seems to be
on the side of the oil producers. Economic growth will continue to
increase demand for oil, and current low prices will discourage conserv-
ation, exploration, and development of new oil resources. When the
next supply shock comes, as it surely must, the rest of the world may
discover that despite its internal problems OPEC still possesses consid-
erable political cohesion and economic power. Some interesting simu-
lations presented during the conference illustrated that, current opin-
ion to the contrary, it is more likely that unpredictable factors will lead
during the next ten years to oil prices much higher than current esti-
mates rather than to oil prices that are much lower.

A wide variety of possible shocks to world energy markets were iden-
tified in the course of our discussions, some further from widely held
views of what is possible than others. Among these of course was the
possibility of political or military developments that will once again
restrict the flow of oil out of the Persian Gulf area. Less well recog-
nized, perhaps, is the possibility of surprising growth in the demand for
oil. Most analysts were surprised by the degree of conservation that
was called forth by the oil price increases of the 1970s. In technical
terms, almost all analysts had underestimated the price elasticity of
demand for oil. It is still uncertain how much of the response to
higher oil prices will turn out to be permanent and how much will
ultimately be seen to have been a temporary result of a view that social
morality required all to conserve energy. It remains to be seen what
will happen to demand for energy in general and for oil in particular as
this view fades. One can already note in the United States the
renewed popularity of large automobiles and the difficulties of contin-
ued enforcement of speed limits alleged to conserve energy.
A sharp rise in the demand for oil could also come from a sudden and possibly complete abandonment of nuclear energy. The electrical power industry and its government regulators have set a quite public and almost certainly impossibly high standard for nuclear safety. They have not argued, as they plausibly might have, that no form of power is without some risks, but that the risks inherent in nuclear power are less than those associated with the generation of electricity from fossil fuels (mining accidents, acid rain, and so on). Instead, they have argued that nuclear power is essentially risk free. Someday, there will certainly be fatalities as a result of an accident at a nuclear power plant. It would perhaps not be surprising for all nuclear reactors to be shut down after such an accident no matter where in the world it occurred. Yet the increased demand for oil and the resulting price rise (to say nothing of the financial disruption in the electrical power industry) would undoubtedly come as a surprise to many.

**Lower Oil Prices**

At the time of our conference the general consensus—both among the larger public and among our participants—was that further declines in oil prices were likely. These forecasts have, of course, been fulfilled in spades. Most of our participants would probably have been surprised by the suddenness and the extent of the most recent decline. If we were to reconvene these participants at the time of this writing, they would probably note that they would be surprised if oil prices remained for very long at these low levels.

Some circumstances were noted during the conference, though, that might lead to permanently lower oil prices. A breakthrough in nuclear fusion technology (most often, it seems, prospectively attributed to the Japanese) is perhaps the best known example. To this might be added the possibility of a really major oil discovery in still largely unexplored areas of China. Such a find would radically alter China’s position in the world economy, and the political consequences are difficult to foresee.

Other possibilities, perhaps less widely recognized, were also noted in our discussions. Among the more striking was the possibility that traditional views of the origins of hydrocarbons could be proved wrong. A minority view today holds that hydrocarbons have not been produced solely by the decomposition under extreme pressure of organic matter (hence, “fossil” fuels). This view holds that much larger quantities of hydrocarbons (and in particular of natural gas) have been produced by geo-chemical processes deep inside the earth’s mantle, processes that do not involve organic material. Searches for evidence of such “deep
earth gas” are under way, and confirmation of this new theory could have dramatic political as well as economic consequences. Discovery of deep earth gas would radically alter current views about the total volume of hydrocarbon fuels available, ending perhaps all interest in nuclear power for the foreseeable future. Just as importantly, this discovery would alter current views about where hydrocarbon fuels are to be found. Exploration based on these new principles might produce a set of newly energy-independent countries, with political consequences that can only be guessed at.

A final interesting possibility was the development of a cheap and efficient battery. By sharply increasing the usefulness of electric power, a technological breakthrough of this sort might significantly alter current relationships between the prices of coal—widely used for electricity generation, but seldom useful for transportation—and petroleum products—the principal transportation fuel. It was noted in passing that any development that led to an increase in the use of coal might also exacerbate environmental problems associated with “acid rain”: coal generally has a higher sulfur content than does petroleum.

**Biotechnical Breakthroughs in Agriculture**

The most dramatic developments in the agricultural sphere seem likely to emerge from progress in biotechnology. Genetic engineering may soon produce hybrid strains that will sharply increase yields. Higher yields could provide opportunities for eliminating chronic food shortages and recurring famines. They could also force the abandonment of agricultural price support programs. The costs of maintaining prices above a rapidly falling cost of production would likely force major restructuring of farm programs in the United States and the European Community that are already at the limits of what is budgetarily feasible.

Another striking possibility is the development through molecular engineering of strains of grain with a capacity (found naturally in such crops as soybeans and legumes) for nitrogen fixation. A breakthrough of this sort would reduce sharply the demand for chemical fertilizers, with a potentially major impact on the petrochemical industry. It would also improve the prospects for self-sufficiency in grain production of countries that now import large quantities of grain. One participant speculated on the consequences of this breakthrough for Soviet agriculture in particular.

Other potentially important developments noted were progress in food technology that would allow the production of, say, new artificial sweeteners, subsequently contributing to the current glut of sugar on
world markets, and the development of new means of processing waste agricultural products to produce animal feeds. Speculation also arose over possibly growing demand for and the ability to produce agro-combustibles as an alternative source of energy.
VI. HUMAN RESOURCES: POPULATION, IMMIGRATION, AND LABOR

Some aspects of world population growth are quite easy to forecast and consequently will hold few surprises. It is, for example, widely anticipated that the total world population number will come close to doubling during the next half century. Today, two-thirds of the world’s population is non-white; in fifty years this fraction will have grown to three-quarters. Then, as now, most of the world’s population will live in what we generally call the Third World.

The consequences of these near certainties, however, could be quite surprising. On considering the above statistics, one conference participant noted that if we wanted a rather startling vision of how the world might look in the future, we might look at South Africa today: a large, mostly poor majority, mostly of non-European extraction, coexisting with a large, mostly rich minority, mostly of European heritage, with military and economic power residing for the most part in the hands of the latter. Most of us see the current situation in South Africa as highly unstable. We do not know exactly what will happen, but the feeling is widespread that something soon will have to give. Conference discussants revealed a similar, although somewhat longer-term sentiment about world population issues as well: something will someday have to give, and the results could be very surprising.

Perhaps the most likely form for a surprise would be a large-scale migration of refugees away from economic or political hardship. That such migrations can arise is of course not surprising; they have occurred many times before. The surprises will likely lie in the sources and the destinations of the refugees and the timing of their flight. There may also be surprises in the way they are received when they reach their destinations. One participant noted rather grimly that although international law seems to be evolving toward a recognition of the right to emigrate, no progress has been made toward the logical corollary of this right—the right to immigrate. This logical connection between emigration and immigration may pose particular problems for the United States. The same participant recalled a comment made by Hoari Boumedienne, then President of Algeria, to the United Nations in 1974: “Some day millions will leave the world’s poor Southern regions and surge into the Northern hemisphere seeking survival.” This participant went on to point out that the United States is the only First World nation that has a land border with a Third World country.
But all surprises that have to do with human resources during the next ten years will not arise from the movement of people across national borders. Our discussions also identified some potentially surprising developments in the labor markets of the industrialized world. In particular, conference participants speculated on how labor unions might respond to the increasingly international nature of economic activity.

In this section, then, we note some potentially surprising developments relating to human resources. Some of them stem from movements of people from one country to another, others from the adjustments of local labor markets and labor institutions to the changing nature of international economic activity.

**Large-Scale Population Flight**

Perhaps the most likely “surprising” development during the next decade will be a large-scale flight of population from some nation because the current government is toppled and replaced by a radically different regime or because of severe economic hardship. The large flow of refugees during the late 1970s from Southeast Asia produced economic, social, and political tensions in a number of countries, most particularly in the United States. There are a number of countries that could produce large volumes of refugees in the near future. Most problematic for the United States would be flight from the Philippines, a number of Central American countries, or Hong Kong. South Africa could also produce large numbers of refugees, although the United States might not be the first destination of these refugees.

Flight from economic hardship is often a flight of the poorest of a nation’s people, those whose standard of living allows no margin for economic disruption. Flight from political turmoil usually involves all economic classes, rich as well as poor. Our discussions did take particular notice, however, of the possibility of largely middle- and upper-class migration from Mexico into the United States sometime in the near future. Political turmoil and economic instability may encourage Mexicans with valuable skills or with the means to enter the United States for educational purposes or on holiday to seek to remain permanently in the United States. The attention of U.S. policymakers seems now to be focused on restricting immigration into the United States by poorer Mexicans—generally manual laborers. The attractiveness of the United States as a potential haven in some future political or economic crisis does not seem to be lost on middle- and upper-class Mexican parents. A number of participants noted the popularity of U.S. and English-language schools among these parents in arranging
the education of their children. Perhaps a somewhat broader view of the prospects for migration from Mexico to the United States is in order.

**Increased Tension Between Immigrants and the Native Dispossessed**

In the United States we have already witnessed racial tension between newly arrived immigrant groups and more established ethnic groups (one hesitates to call any ethnic group other than American Indians "native") who have reason to consider themselves dispossessed or economically disadvantaged. The most common targets for such animosity have been Asians, and the native-born Americans who most often have seen their jobs or their economic prospects hindered by an influx of low-paid labor have been blacks. There have also been clashes between blacks and more newly arrived Hispanics—most prominently Cubans.

In a labor market with less and less demand for low-skilled labor, these kinds of tensions are likely to become more pronounced, and a number of participants urged that we not rule out the possibility of large-scale racial violence. The probability of such events will rise if additional large numbers of relatively well-trained immigrants from newly industrializing countries—the Philippines, say—should begin to compete with urban blacks in U.S. labor markets, winning jobs that might be seen as "rightfully" belonging to native-born Americans. Some of our participants expressed surprise that the most disadvantaged segments of the U.S. population had not already been organized to offer serious political opposition to the immigration of large numbers of new refugees.

Public opinion polls have revealed strong anti-immigrant sentiments in all West European nations, and most of these countries have been marked already by at least low-level ethnic violence. Usually, antipathy towards immigrants in Europe has its roots in social or cultural considerations rather than in employment prospects, with immigrants blamed for making housing shortages more acute or for changing the traditional character of towns. But as long as unemployment remains the principal economic woe in Western Europe, the possibility of employment-related tension will continue to grow, providing more motivation for ethnic tension. Unlike the United States, most West European countries already have active political parties strongly opposed to immigration: the British National Front, the French National Front, the Swiss Vigilance Party, and the German National Democratic Party are the most visible of these organizations. The
strength of European anti-immigrant feeling is such that Europe is unlikely to absorb more than a small fraction of refugees from any future political or economic disturbance. The greatest part of the burden of absorbing these refugees will almost certainly fall to the traditional immigrant countries: the United States, Canada, Australia, and New Zealand.

Forced Repatriation

Potentially difficult problems could also arise from the forced repatriation of large numbers of foreign workers from countries that have in recent years been viewed as labor-shortage countries. The most likely problem areas are the oil-rich states of the Persian Gulf. Foreign workers employed in the Middle East increased 55 percent from 1975 to 1980, from 1.8 million to 2.8 million. In 1980, foreign workers accounted for over 40 percent of the work force of the labor-importing countries of the Middle East. A collapse of OPEC or continued sharp declines in oil prices might result in forced repatriation of these workers, with potentially dire consequences for their countries of origin. Egypt, Jordan, and Lebanon have all been large exporters of labor to the oil-producing Persian Gulf states, and the return of these workers would increase unemployment and reduce the flow of foreign remittances, an important source of foreign exchange for these labor-surplus countries. In all three of these countries, and perhaps in others, the return of large numbers of newly unemployed workers could produce political as well as economic strains, upsetting the already precarious political balance in the Middle East.

Internationalization of South Africa's "Black Problem"

A bizarre twist might be given to forced emigration policies if South Africa were to declare that its racial problems were properly an international concern, not a purely domestic one. Discussion of this possibility grew out of the observation by several participants that if push came to shove it might not be whites who would flee South Africa. There seems to be a widely held view among much of the South African white population that they are by this time every bit as African as are blacks, that whites have just as much right to remain in South Africa as do blacks, and that there is really no place else for whites to go. This attitude may contribute to a determination to fight for continued white control of South Africa if this should become necessary. South African government forces are well trained and equipped, and it is by no means clear that the white minority would lose this fight.
The rather curious possibility suggested during the conference might arise this way. The South African government, noting foreign displeasure over its domestic policies, might inform the rest of the world that it considered it impossible for whites to submit to black African rule. The government recognizes, however, that the current situation is also untenable. It calls upon the world therefore to devise some humane plan for resettling South African blacks elsewhere, perhaps in expanded black "homelands." The alternative to devising a suitable relocation scheme, the government would conclude, would be a lengthy and bloody civil war in South Africa, with well-armed and well-trained South African troops taking whatever steps were considered necessary to secure the future of white rule. How other governments would respond to such an ultimatum can only be guessed at.

**Elite Immigration**

Developed nations are generally concerned with limiting or controlling unwanted immigration. Conference discussions on potential technological surprises facing the United States, however, evidenced some concern over the need to promote particular kinds of desirable immigration. One participant noted the very large proportion of foreign science and engineering graduate students at U.S. universities. While they are students, the foreigners provide a valuable pool of skilled technical labor, serving as laboratory assistants and junior researchers and generally facilitating U.S. scientific and technical enterprises. After graduation, many of these students remain in the United States, adding to the pool of highly skilled technical labor available to American science and engineering.

Little detailed analysis of the importance of these "elite immigrants" to the U.S. economy seems to have been undertaken, but simple counts of the numbers of foreigners serving in specialized technical capacities in the United States suggest that their contribution may be significant. This contribution may be further increased by their concentration in industries often viewed as constituting the "cutting edge" of economic development. The questions raised in this context are whether one can devise realistic scenarios in which the flow of foreign science and engineering students to the United States is significantly disrupted and how much of an impact such a disruption might have on the U.S. economy.

A more general version of this same issue arose in discussions of possible "recruiting" of technical or economic elites from abroad. Migration of highly skilled workers has from time to time produced concern and suspicions in some countries over other countries'
objectives and methods. Europeans were, for example, concerned over the "brain drain" to the United States during the 1960s. Before the construction of the Berlin Wall, East Germany accused West Germany of trying to cream off the best and the brightest of its workers. None of our participants, though, could identify a case in which such "creaming" had been made a matter of national policy. But almost all nations make immigration easier for the well trained or the financially secure, and several instances of corporate or university recruiting aimed specifically at foreigners were noted. Given the importance of human resources in the process of economic development, it might not be out of the question that the incentives now available to attract the technical elite might one day be intensified and become major elements of national development policies. Interesting questions for future research might be where such strategies would be most likely or most effective and how countries whose elites were being enticed away might respond.

The Social and Political Influences of Large Foreign Populations

The United States has always been a nation of immigrants. While retaining some important elements of their foreign heritage, these immigrants were generally assimilated into a broader "American" social and political structure. They became "natives" in most important senses. Concern has been raised about whether newer waves of immigrants to the United States—increasingly non-European—can also be assimilated or whether they will remain essentially "foreign," separate from the broader social and political structure. Similar concerns are being raised in Europe, where hyphenated ethnicities (e.g., German-Turks) are becoming much more prominent, and where the attitudes of native-born residents reinforce the usual cultural and linguistic differences and hinder the process of assimilation. And in the Third World, large "foreign" populations can arise when refugees cross from one nation to another fleeing political or economic hardship. Often, the presence of these refugees is seen as temporary—both by the refugees themselves and by host-country nationals—and little attempt is made to facilitate their assimilation.

To the extent that a large foreign population maintains its identity, it can become a significant social and political force, sometimes with desires, aspirations, and perhaps even a foreign policy agenda that differ substantially from those of host-country nationals. In a country as large as the United States, the political and social impact of such groups is likely to be felt only in particular areas—demands for special
schooling, perhaps, or, on a cultural level, new interest in particular styles of music or entertainment. In smaller countries, though, this new constituency may change the face of local politics or society. Given the likelihood of large and possibly concentrated population movements in coming years, more careful consideration should be given to the political and social consequences to the potential host countries of such moves.

**Labor Responses to International Economic Activity**

The years since World War II have been marked by a dramatic "internationalization" of business. An increasing share of all world production is accounted for by multinational enterprises, which seek to locate production so as to minimize costs and to maximize access to important markets. As we have noted above, the search by these multinational enterprises for production and marketing efficiency has sometimes put them at cross purposes with national governments seeking to maximize local employment and income. Needless to say, these multinational enterprises have also found themselves at odds with national labor movements when the former have chosen to move particular operations offshore, thus reducing employment among the members of the latter. The trend toward a more fully integrated international economy and toward international operation of business enterprises has reduced the power of traditional national labor unions in most of the industrialized world. No longer can labor be "kept out of international competition." Increasingly, production has moved out from under labor unions that too strenuously resist the measures necessary to maintain international competitiveness. None of our participants saw a marked resurgence of union power during the next decade. Some did argue, however, that the means by which national governments and labor unions deal with multinational corporations might change.

Truly international labor unions are unlikely in the foreseeable future. Our participants did see, however, the possibility that a combination of union and national government concern over the policies of multinational enterprises might lead to the promulgation through some international body (such as the GATT) of a set of international "fair labor standards." The idea behind these standards would be that multinational firms should not be allowed to reduce costs by taking "unfair" advantage of labor in particular countries. Neither should countries be able to improve the competitiveness of their exports by tolerating "substandard" working conditions. Presumably, these standards would not cover wages in the foreseeable future; the com-
plications of shifting exchange rates, differing definitions of what constitutes an acceptable minimum wage, and the intricacies of national price and income policies would make this impractical. More straightforward issues such as occupational safety and health standards might conceivably be agreed on. A party to the GATT might then be permitted to refuse entry to goods that could be demonstrated to have been produced in violation of these agreed-upon labor standards.

A more direct response to the threats posed by multinational enterprises might be the use of labor unions' financial resources to influence corporate behavior. In a number of industries, union pension funds constitute substantial financial resources that could be deployed to purchase important stakes in employing companies, giving the unions a voice in the policies of those companies. So far, unions have sought so-called codetermination through the bargaining process, negotiating union representation on corporate boards of directors. The next decade may see, however, more direct action as unions simply buy the representation they seek.
VII. THREATS TO THE COMMERCIAL ORDER

International businesses have often been the target of terrorist attacks. Sometimes these attacks are specifically aimed at disrupting or halting the operations of a particular company. Sometimes the motivation for attacks on commercial concerns is a desire to raise funds through theft, extortion, or ransom to finance aims or activities that have nothing directly to do with the target firm. Sometimes the target firm is merely a convenient surrogate for either its host- or its home-country government, and attacks on the firm provide a means for embarrassing, harassing, or demonstrating the impotence of government authorities. In a few cases, terrorist attacks appear to have been aimed at the larger financial and commercial infrastructure—at the “commercial order”—in an effort to prevent the world from going about “business as usual” and to focus attention on what the perpetrators of the attack may perceive as singularly offensive cases of injustice. Sometimes attacks against the commercial order have been mounted by subnational groups operating more or less without the direct support of national governments and outside of international law. Sometimes, on the other hand, the commercial order is also threatened by “legitimate” actions of states: trade embargoes, restrictions on freedom of passage, or obstacles to international payments.

Modern international business methods produce a wide variety of potential “hostages”—people, property, information, financial assets, documents, lines of communications, and so on—that can be seized or threatened in order to extract money or changes in behavior from the owners or to call attention to the demands of the attackers. Efforts to protect these potential hostages face a variety of economic, logistical, and political obstacles, and the commercial order will inevitably remain vulnerable to determined attackers seeking either monetary or political gain. And while calculated attacks by human agents seeking some sort of gain may constitute the most dangerous and difficult to prevent threats to the commercial order, “nature” in the form of computer failures, communications interruptions, or unintentional human errors will also pose a permanent threat to an increasingly complex and perhaps increasingly fragile network of commercial and financial ties.

Given the vulnerabilities of the modern commercial and financial infrastructure, the biggest surprise is perhaps that it is not seriously disrupted more often than it is. This good luck may breed a sort of complacency, however, that renders the disruptions that do occur
surprising and problematic. In this section, we will discuss ways in which the commercial order might be disrupted—either by human actors or by nature.

The Effectiveness of a Little Violence

Violence directed at travelers is, of course, nothing new. Hijackings and attacks on airport facilities, if not yet commonplace, are no longer major news items unless the episode is unusually bloody or bizarre. All travelers are resigned to facing some risks from terrorist actions, but most have concluded that the risks are small and do not constitute a major deterrent to travel. This seems a reasonable view inasmuch as attacks on air travelers have so far been isolated incidents. The perpetrators of these attacks have generally sought to command public attention by their actions, not seriously to restrict travel to or from particular areas. These scattered acts of violence have imposed costs on all of us—principally in the form of the inconvenience and expense associated with airport security measures—but there is no indication that a desire specifically to impose costs has been an important motivation for those considering an attack on the air travel system. Increased costs to travelers have been by-products of actions carried out for other reasons.

But what, some conference participants wondered, would be the consequences of a determined campaign to disrupt air traffic and keep it disrupted? One might imagine a campaign in which explosives were repeatedly placed aboard aircraft about to depart for, say, Israel. Explosives would be placed on aircraft in a number of cities over an extended period. These explosives would be detonated before planes took off, perhaps damaging them with little or no loss of life. They might even be placed so as to be discovered before detonation. Announcements would be made promising more explosives, some of which would inevitably not be found in time and would destroy planes in flight. The objective of this campaign would not be to create a major media event (although it well might). Rather, it would be intended to discourage tourists and business travelers from going to Israel, thereby beginning to isolate Israel from its business and cultural allies. It could also impose further costs on any airline that chose to fly to Israel, and might even succeed in forcing some airlines to cancel their service.

The point of this example is that relatively low levels of violence or threatened violence could, if used in a persistent fashion, impose severe economic costs on a chosen target. We have not seen such a campaign yet, but U.S. policymakers might do well to consider how to prevent one from being launched and how to deal with it if it should be.
Contamination of Products—Or of People

Economic warfare of a similar sort could be carried out through product contamination. In the last few years, we have seen isolated incidents in which products of a particular company are tampered with, apparently by someone with a grievance against the company. A threat to poison Israeli oranges bound for European markets a few years ago marked one of the few uses of such tactics for political purposes. The aim of these efforts at product contamination was the same as that postulated above for a systematic campaign against travelers: the economic isolation of a particular country or company.

One conference participant suggested a particularly chilling variation on this same technique. What, he speculated, if AIDS had been intentionally introduced into the United States? He was quick to point out that there is no evidence that this happened. Indeed, there is some evidence to the contrary. But still, the case of AIDS suggests some disturbing possibilities.

Some epidemiologists have already suggested, for example, that West European countries, as yet largely unaffected by AIDS, might be wise to bar travelers from the United States unless they can be certified as not having been exposed to the AIDS virus. The costs imposed on Americans wishing to travel to Europe, the absolute prohibition on travel to Europe for a potentially large number of Americans, and the public suspicion of Americans that could be generated by such restrictions could serve to reduce American economic and political influence in Europe—a result that might be attractive to some interests.

“Contamination” of Americans in this way might also have significant effects on U.S. military capabilities. The U.S. military is already formulating plans for screening military personnel for the AIDS antibody, and it is not hard to imagine a European government someday requesting that U.S. personnel assigned to Europe be chosen only from those shown not to have been exposed to the virus. The result might be increased difficulty in maintaining the U.S. NATO commitment—once again a result that might be welcomed in some quarters.

Vulnerability of the Financial Clearing System

Participants noted the particular vulnerability of the electronic clearing systems that major banks use to settle their accounts with each other. The most important of these clearing systems are the Fedwire, linking U.S. banks and operated by the Federal Reserve, and the Clearing House Interbank Payment System (CHIPS), the principal means by which international accounts are settled. A variety of
smaller networks for fund transfers are also in operation. The volume of transactions handled by these clearing systems has become enormous; some estimate that the amounts moved weekly “by wire” among U.S. banks are roughly equivalent to the total annual U.S. gross national product. Because of differences in the times that banks in different locations make and receive payments, use of these fund transfer networks can generate very large amounts of very short-term credit. Morgan Guaranty Trust Company has estimated that at midday the aggregate amount of this credit (known as negative balances) can reach $100 billion. That the system is vulnerable was demonstrated last October when a computer failure at the Bank of New York, a major player in the market for U.S. Treasury securities, disrupted the payment system. Bank of New York was forced to overdraw its account at the Federal Reserve by more than $22 billion, an amount far exceeding the bank’s capital and reserves, until the situation could be straightened out the next day.

The Federal Reserve has moved to place some limits on the size of bank overdrafts that can arise through the use of the Fedwire. Some private networks also place limits on the size of negative balances within their systems. But there is still no effective limit on the size of negative balances that banks can incur on all systems. There is not even any way to monitor the size of these positions. The concern is that the disruption of a major clearing network might force some bank or set of banks into massive default. Banks relying on payment from these defaulting banks would find themselves unable to meet their obligations, and the chaos resulting from the initial failure could spread. At best, the financial system might resume normal operation in a few days when all the tangled accounts were straightened out. At worst, the financial system might collapse.

Disruption of electronic clearing systems might be the result of simple bad luck, as in the case of Bank of New York’s computer failure. The system might also be disrupted through a deliberate act of sabotage. Trouble might arise if some country suddenly cut its communications links with the outside world in time of domestic or international crisis. This last sort of development could be a particular problem if the growing crisis had created a financial panic that had dramatically increased the volume of transactions handled through international transfer networks. One can even imagine cases in which a government might think it advantageous to cut its own communications to prevent the outflow by wire of funds already expected by foreign banks.

The financial market turmoil that followed Western efforts to freeze Iranian assets in 1980 prompted a number of large banks to look more carefully into the operations of CHIPS, and some operating procedures
were adjusted to reduce users’ short-term exposure. None of our conference participants, however, was aware of any serious effort to assess the vulnerabilities of the various fund transfer networks or to devise plans to be put into operation should one of these systems fail. These might be suitable topics for further research and planning.

The Ineffectiveness of Financial Regulation

Ironically, another type of threat to the commercial order might arise out of the continued smooth operation of the systems that allow rapid transfers of funds from one country to another. No doubt the vast preponderance of international fund transfers are for legitimate purposes, and international trade and commerce benefit as a result of easy international fund transfers. Cross-border transfers of funds are also, however, essential features of many money laundering operations, by which the sources of funds or the nature of certain transactions are hidden from financial authorities. The activities facilitated by money laundering operations are generally thought to be criminal, or at least antithetical to the smooth operation of national tax collection and regulatory activities.

The ease with which funds can now be moved across national boundaries may also be exploited by terrorist or “national liberation” organizations. Recent allegations that Libyan-supported terrorists have drawn on funds from U.S. banks suggest the potential for using the modern fund transfer system to support ends inconsistent with U.S. interests. Few would argue that the growth of a network to facilitate international flows of funds has been a bad thing; the legitimate needs of international finance and commerce have been served well by this system. Similarly, few would resist the further development of the system. Our participants noted, however, that insufficient attention seems to have been paid to the ways that this system might be exploited to support criminal or terrorist activity or for simple evasion of financial regulations, and that the capabilities of the system seem to be expanding beyond our ability to monitor and control certain kinds of transactions. Thus, a potentially important topic for research would be how undesirable international transfers might be discouraged in the future.

Counterfeiting

It has long been recognized that counterfeiting can seriously disrupt commercial and financial transactions. Doubt about the authenticity
of currencies or documents exchanged in these transactions can increase the costs of doing business and may even constitute a prohibitive barrier to certain kinds of transactions. There are historical precedents for attempts to destabilize economies through large-scale counterfeiting operations. Similarly, counterfeiting of commercial products can produce uncertainty about the quality and nature of goods available for purchase, impeding the sale of the affected products. For these reasons, nearly all nations mount aggressive anti-counterfeiting campaigns. Attempts to counterfeiting currencies, documents, or products can hardly be classed as surprises. Technological developments of recent years might lead, however, to a surprising broadening of the scope for potential counterfeiting activities. The development of increasingly sophisticated technologies for reproducing documents, for example, has already forced issuers to adopt sophisticated measures to ensure the integrity of their documents. Special papers, holographic images, and magnetic strips are among the techniques that have been enlisted (sometimes at considerable expense) in this effort. These new copying technologies may soon place large-scale counterfeiting, once possible only for governments of relatively large and sophisticated countries, within the reach of smaller nations or determined subnational groups. This would open new possibilities for economic warfare against larger and richer nations, possibilities the latter nations may not be sufficiently prepared to counter.

Perhaps offering an even better opportunity for determined counterfeiters is the increasing reliance of the modern commercial order not on physical but on electronic "documents." Transactions are completed through the electronic transmission of instructions and authorizations. In many cases, no physical documents change hands. For some years, the commercial and financial communities have been aware of the dangers posed by "hackers" trying to gain access to communications channels in search of monetary gain or mischievous fun. Questions quite naturally arise about whether a systematic campaign of counterfeiting electronic "documents" might be possible for nations or well-organized subnational groups. If so, what steps taken at what costs would be necessary to defeat such a campaign?
VIII. GEOPOLITICAL DEVELOPMENTS

Anyone who needs convincing that political or military developments can dramatically affect the international economy need only recall the history of the Middle East during the last fifteen years. Arab opposition to Israel and attempts by some Arab nations to withhold oil from Israel's allies during the Yom Kippur war no doubt helped OPEC members recognize the monopoly power that they had probably possessed for some time. The economic consequences of OPEC's use of its power were of course enormous. The sharp increases in world oil prices that accompanied the outbreak of the Iran-Iraq war reminded us that important world markets and the world economy remain vulnerable to events that may at first seem to have little to do with economics.

The causality runs the other way as well. International economic developments can have important effects on the international political environment. The viability of democratic government in Latin America may be threatened by the austerity programs required if these countries are to continue to service their foreign debts. And U.S.-Japanese relations are no doubt colored by the inevitable economic competition between the two countries. The interdependence of international economic and international political concerns was a central theme of conference discussion. In this section we note some of the geopolitical developments that were discussed during the conference. Some of them captured our attention because they are potential causes of important economic change, others because they are potential consequences of current international economic trends.

Political or Military Turmoil

That regional conflicts, civil wars, or political turmoil can interrupt the flow of critical materials is well recognized. Consequently, considerable thought and planning are regularly given to scenarios and contingencies that could result in the disruption of important world markets. Because of the unique place of oil in the international economy, much of this thought and planning concerns the future of the Middle East. A variety of scenarios that could lead to an interruption in the flow of oil can be imagined: a major escalation of the Iran/Iraq war; a new Arab/Israeli conflict; the collapse of the current Iranian regime, perhaps followed by a major Soviet attempt to seize control of Iran; or
the overthrow of the House of Saud. One can also imagine somewhat less severe but still significant economic consequences of political turmoil or widespread violence in South Africa that resulted in an interruption of exports of strategic minerals.

Any one of these developments would probably be "surprising" if it actually occurred—principally because all seem unlikely today. And because of our limited ability to forecast even when the major circumstances are taken as given, we would almost certainly be surprised by some of the consequences of such developments. These kinds of developments are, then, appropriate subjects for continued study and planning. For the most part though, we failed in our discussions to identify striking possibilities for disruption of important world markets that are not generally well recognized today.

**Failures of Economic Rationality**

There is no question that who controls vital resources is of great political and diplomatic importance to the United States. A world in which the Soviet Union controls the flow of oil out of the Persian Gulf would be very different from the world we know today. In an economic sense, however, ownership or control of valuable assets like oil may not appear to be such a grave issue. The Soviets would receive the same benefits from selling Persian Gulf oil that the Saudis do today, and we sometimes assume that if they ever took control of the Persian Gulf, the Soviets would go on selling oil to the rest of the world much as the Saudis do today. There is a tendency, it seems, to believe that economic rationality will be perceived in roughly the same light by whoever is in power in important countries. From an economic viewpoint, therefore, who controls major countries or resources is sometimes thought not to be terribly important.

Throughout our discussions, we continually noted the dangers of predicting the future by extrapolating current conditions. Deviations from current behavior are often surprising. And deviations by national governments from what is currently regarded as economically rational policies can produce dramatic economic surprises. Recent actions by Saudi Arabia—doggedly reducing oil output over a period of years to maintain prices and then suddenly increasing production in an attempt to discipline producers not willing to share responsibility for restraining production—suggest at least that governments can change their minds about what constitutes economic rationality. Where might we see deviations from narrowly defined economic rationality in the future?
Once again, most attention seems to focus on oil markets. A number of countries are in a position to influence the world oil market: Saudi Arabia, with the ability to absorb short-term reductions in revenues to make longer-run gains; Nigeria, with an urgent need to maximize its current revenue; Mexico, with many of the same long-term goals as OPEC but without a voice in OPEC councils; the Soviet Union, the largest oil producer of all but with a bewilderingly complex set of internal and external objectives; and countries like the United States and the United Kingdom, which profess to allow only market forces to determine oil production and prices but which maintain and adjust from time to time tax policies that significantly alter the profitability and hence the volume of oil production. For none of these countries is economic rationality with respect to oil policies a straightforward concept. And the most attractive policy for each depends critically on what policies the others are following. The result for the next few years will almost certainly be continued strategic maneuvering which cannot help but bring surprises.

A different sort of “irrationality” might arise with the coming to power of a government willing to sacrifice economic performance to achieve social or political ends. In most cases, the actions of such governments would be of minimal economic importance to the rest of the world. Two cases, however, come to mind as potentially important. One is the replacement of the present Saudi ruling family by a zealously fundamental Islamic government, intent on purging the Persian Gulf of “harmful” Western influences. The result might be a dramatic reduction in Saudi oil output with potentially large effects on oil prices. The other potential development of this sort is the resurrection of rigid Maoist economic and social policies in China and a consequent withdrawal of China from the international economy.

Conflicting U.S. and Japanese Interests

Among the more disturbing observations to arise in the course of our discussions was that a more intense conflict of economic interests between the United States and Japan seems inevitable during the next decade and that this conflict may strain the fundamental relationship between the two countries. The United States and Japan, it was pointed out, have already fought one war largely because of a Japanese perception that the United States sought to deny Japan its rightful place in the world economy. No one suggested that another war was likely or even conceivable. But all noted that further Japanese growth must come at least in some instances at the expense of important U.S. interests and that effective ways to resolve the resulting tensions had not yet been devised.
Some tensions between Japan and the United States will arise over purely economic issues, as Japan and the United States increasingly compete with each other for dominance in a wide variety of manufacturing and high-technology industries. Other tensions will likely stem from fundamental differences between the Japanese and U.S. societies and the ways that economic decisions are made in the two countries. No amount of government-to-government negotiation, for example, will reduce the importance to Japanese firms of buying intermediate products from suppliers with whom they have long-standing ties. American suppliers will inevitably feel shut out of important segments of the Japanese market, while at the same time finding their American customers quite happy to deal with any Japanese firm that can offer a lower price or better service. American suppliers will see this situation as unfair and demand some form of redress. The only form of redress possible, however, may be to restrict Japanese access to the U.S. market through overt trade barriers, a step certain to damage relations between the two countries.

Perhaps more troublesome could be divergences of political or diplomatic interests that derive from the very different factor endowments of Japan and the United States. Heavily dependent on imported energy, Japan might, for example, be tempted to conclude deals with and develop dependencies on states viewed with some suspicion by the United States. Similarly, Japan's dependence on its sea lanes of communication may force accommodation with smaller Pacific nations whose policies may not always find favor with the United States. One might wonder, for instance, how a future Japanese government might deal with a Communist regime in the Philippines.

The key to avoiding future conflicts between Japanese and U.S. policies and aspirations or to keeping unavoidable conflicts from damaging the larger relationship between the two countries probably lies in identifying as far in advance as possible areas of potential conflict. It is clearly in the interest of both governments to protect the close relationship that exists between the two countries, and early identification of problem areas may allow policy adjustments that will ease future tensions. It might be an interesting exercise for some economists and political scientists to see how bleak a scenario they could draw for the future of Japanese-American relations. The effort might identify particular current needs for policy adjustments.

**The Japanese Role in Pacific Security**

Another consequence of diverging U.S. and Japanese economic interests might be fundamental changes in Japanese defense policies
and in Japan's role in assuring the security of the western Pacific. Differences of views may well arise between the United States and Japan over such issues. Some in the United States have long argued, for example, that by relying on U.S. military power Japan has been spared the economic burden of providing for its own defense. The resources thus saved, it is argued, have been used instead to build Japan's industrial capacity—sometimes to the detriment of U.S. interests. As Japan becomes a great economic power, the argument concludes, Japan should be required to accept the associated responsibilities—military responsibilities included.

Others in the United States argue that a continuation of Japan's current military posture furthers important U.S. interests. A rearmed Japan may appear as a threat to smaller Asian and Pacific nations with vivid memories of World War II. Japanese rearmament could also trigger a buildup of Soviet forces in the Far East, which could eventually present a renewed threat to the Chinese. More troubling, Japanese rearmament could appear sufficiently threatening to drive China into some form of military cooperation with the Soviet Union. Whatever its form, a general buildup of military forces in the western Pacific would considerably complicate U.S. military planning and operations in the area.

Neither is there unanimity within Japan about the proper military role for Japan. Certainly, memories of war remain powerful in Japan, and many would prefer never again to provide any temptation to military adventure. Similarly, the economic advantages of not maintaining large military forces are widely recognized. But thoughtful consideration of the future must recognize that U.S. political and military interests may not always coincide with Japanese interests, and that Japan may one day require military forces of its own to protect interests vital to Japan that may not be recognized as such by the United States. And on purely economic grounds, Japan may find military forces to provide useful markets and testbeds for sophisticated weaponry and technology that might eventually capture a share of what appears likely to be a growing world market for military equipment.

The overall conclusion to be drawn from these and other similar observations raised in the course of conference discussions is that neither the United States nor Japan seems today to have developed a coherent view of Japan's military and diplomatic role. Inadequate attention, in the view of our participants, has been paid to laying out the potential advantages and dangers of an enlarged role for Japan in the defense of the western Pacific. Yet policies being made in both countries today will clearly influence Japan's role, and our participants
suggested that a failure to consider carefully these issues could lead to surprising developments in the future.

One participant noted that many of the questions raised about Japanese rearmament might just as sensibly be asked about China. China’s emergence from isolation and its potential economic growth raise questions about its role in Pacific security affairs. The difference between Japan and China, he noted, is that we ask whether Japan will become a major military power. With regard to China, the questions are when it will achieve this status and how it will project its power.

**U.S.-Mexican Conflict**

Perhaps even more disturbing than the prospect of deteriorating U.S.-Japanese relations is the prospect of increasing tensions and possibly even armed confrontation between the United States and Mexico. There seems little reason today to expect that the gap between U.S. and Mexican living standards will do anything but continue to widen. The increasing relative poverty of Mexico will add to the already substantial pressures for migration, legal or otherwise, from Mexico into the United States. This pressure may be further increased by a flood of even poorer Central Americans seeking to enjoy the relative wealth of Mexico. Popular resistance to increased immigration from Mexico is already growing in the United States, and it is conceivable that by the early 1990s the U.S. military will resume its classic mission of securing the borders of the United States—at least the borders facing Mexico.

Continuing poverty in Mexico is likely to breed political unrest. In this unrest, it will be easy to identify the United States as the cause of many of Mexico’s problems. U.S. firms, it will be said, “exploit” Mexican laborers, paying them far less than American workers doing the same work a few miles away on the other side of the border. U.S. agribusiness uses Mexican “guest workers” for the most backbreaking tasks and sends them packing when the harvest is finished. U.S. banks place an unbearable debt servicing burden on Mexico and refuse to extend new credits; the results are arrested Mexican economic development and falling per capita incomes in Mexico. The United States provides a haven for the hard-currency funds smuggled out of Mexico by corrupt officials. Even in the best of circumstances, opposition to the United States is likely to be an attractive political strategy in Mexico. It will become that much easier to sell an anti-American message if U.S. troops are visibly deployed in defense of economic inequality that many Mexicans may find morally and politically intolerable. It is therefore not hard to imagine a government in Mexico City sometime in the next ten years that is openly hostile to the United States. Neither is it hard
to imagine an aggressive U.S. response to the threat posed by having such a government on its southern border.

How the United States might deal with a hostile Mexico and how it might prevent its relations with Mexico from deteriorating to the point of hostility are not subjects that receive much attention in policy circles today. Yet the possibility that diverging economic circumstances in the two countries could lead to diverging political interests is quite real. The need for more work in this area is perhaps the clearest conclusion to arise from conference discussions.

**Soviet-East European Conflict**

Our discussions noted that economic circumstances could also strain relations between the Soviet Union and its East European satellites. East European countries are already well aware of the advantages of closer economic ties with the West. These countries see the West as the preferred source of consumer products, of the capital equipment necessary for their economic development, and of the financing necessary to buy both kinds of products. There seems little prospect that the Soviet Union will be able to reverse this view, competing successfully with the West in providing Eastern Europe the amenities that their West European neighbors so visibly enjoy—amenities that the Soviet Union is unable to provide even for its own citizens. As the gap between Western and Eastern economic performance widens, the tendency of East European countries to look westward for economic progress is likely to increase.

All of this may constitute a severe challenge to the Soviet hegemony in Eastern Europe. At some point, the Soviets may recognize a threat to the primacy of the Communist Party central committees in Eastern Europe and perhaps to the military lines of communication between the USSR and the German Democratic Republic. The surprises will arise when the Soviet Union tries to meet this challenge. So far, the Soviet Union has managed to confine challenges to its authority in Eastern Europe. Whether it will continue to do so and what methods it will adopt in the attempt remain to be seen.
IX. NATIONAL SOVEREIGNTY AND THE SIGNIFICANCE OF NATIONAL BORDERS

A recurring theme throughout our discussions was the inadequacy of current notions of national sovereignty for dealing with some of the economic and political developments that are likely to mark the next ten years. Increasingly, economically important developments will be beyond the control of individual nations, and commercial and financial transactions will have consequences for countries not directly participating in the transactions. These developments and transactions are likely to produce surprises because current institutional arrangements may prove inadequate for regulating or monitoring them or for coping with their consequences. At best, one might hope that new, possibly transnational institutions will arise to carry out these functions. At worst, individual nations may feel compelled to take unilateral steps to deal with these new developments, sometimes attempting to force their laws or desires on other nations. (Recent attempts by the United States to force foreign subsidiaries of U.S. corporations to adhere to U.S. guidelines for the export of technology to the Soviet bloc are examples of such unilateral action.) Either case is likely to lead to unforeseen consequences.

In this section, we note briefly a number of transnational phenomena that may pose problems for strictly national policies. All are likely to require some new forms of international cooperation.

An Increasing Role for International Financial Institutions

Perhaps the problems most likely to bring forth proposals for increased international cooperation are those associated with maintenance of the global system of trade and payments. Most nations have a stake in the preservation of a more or less liberal trading regime and of a functioning system of international payments. It has long been recognized, however, that no single nation has the power to guarantee the continued smooth functioning of these systems. As a result, international bodies have been established to manage important aspects of international economic relations. The International Monetary Fund (IMF) and the International Bank for Reconstruction and Development (the World Bank) are perhaps the most prominent of these institutions, but others such as the General Agreement on Tariffs and
Trade (GATT) and the Bank for International Settlements (BIS) also provide some kinds of multilateral commercial and financial regulation.

The current difficulties of many developing countries in servicing their foreign debts have made these international financial institutions, particularly the IMF and the World Bank, more prominent. Increasingly, these institutions have provided a forum for negotiating the terms of debt reschedulings, a body of ostensibly non-political experts to identify needed policy reforms in debtor countries, a technical staff to monitor compliance with the terms of rescheduling arrangements, and the channel through which additional funds are sometimes supplied to debtor countries. For a growing number of countries, economic policy is being set by international civil servants at World Bank and IMF headquarters in Washington rather than in the local national capital. If the wealthy nations of the world are to contribute to ease the plight of poorer nations, it is argued, there must be some guarantee that funds transferred to the developing world are used effectively. It is not politically realistic to expect sovereign nations to submit to policies dictated by a particular donor nation. Much better to have some international body set and enforce standards for economic policy.

The question for forecasters and for U.S. policymakers is the extent to which the influence of the international financial institutions is likely to expand and the degree to which this is consistent with U.S. interests. Recent proposals by the U.S. Treasury Secretary for increasing the flow of credit to developing countries that adhere to certain principles of “proper” economic management (these proposals constitute the so-called Baker Plan) foresee an increased role for the World Bank and the IMF. Our participants wondered aloud, however, whether the implications of turning over increased policymaking authority to such bodies had been adequately considered. Can these institutions, for example, maintain their apolitical character if they are forced increasingly to involve themselves in the day-to-day operation of national economic policies? Or will they necessarily become a target for political controversy, thereby losing their effectiveness as neutral providers of technical and financial assistance? Will the growing importance of these institutions make their policies matters of contention among the industrialized and oil-producing nations that provide the bulk of the financial support for their operations? Could the United States someday face a “financial United Nations” in which some coalition of nations with differing objectives or perceptions regularly block U.S. initiatives?
International Environmental Management

The past decade has been marked by a growing awareness that national policies can have environmental consequences that cross national boundaries. Nations suffering from the consequences of oceanic pollution or acid rain, for example, have become increasingly vocal in their demands that other nations take steps to limit damage to a shared environment. Whereas most nations recognize, at least in the abstract, the legitimacy of these demands, arguments over who is truly responsible and who bears the burden of correcting the situation in particular cases are becoming increasingly strident. As sensitivity to environmental concerns continues to grow, external demands for changed national policies are likely to become more common. And the resulting international arguments and tensions are likely to become more severe.

Serious confrontations among nations over environmental issues may first arise as a result of an environmental accident that is not contained within national boundaries. Imagine, for example, a major mishap at a nuclear power plant located close to a national boundary. Prevailing winds might carry contamination into a neighboring country, causing widespread economic losses and possibly illness or death. Imagine further that a year later the government of the upwind country declares the power plant to have been satisfactorily repaired and ready to resume operations. The downwind country may be understandably reluctant to accept its neighbor’s assurances that the plant is now safe and might legitimately demand the right to monitor operations at the plant. The necessary monitoring might be viewed by the upwind nation as an unacceptable violation of its sovereignty. If sensitive nuclear technology is involved, it may also be viewed as a threat to national security. The result could be a difficult confrontation of national wills and policies. If relations between the two countries were already strained for other reasons, it is not out of the question that the victim of the first accident might seek unilaterally, and perhaps forcefully, to guarantee that the plant would never resume operation.

Even without positing a major environmental disaster, however, it is easy to imagine international confrontations growing out of environmental concerns. It is, for example, increasingly fashionable for environmentally concerned residents of industrialized countries to decry the systematic destruction of tropical rain forests in the developing world. Deforestation may allow a buildup of atmospheric carbon dioxide as the stock of plant life capable of converting carbon dioxide to oxygen through photosynthesis is depleted. This will lead to an intensified “greenhouse effect,” raising average temperatures, melting
polar icecaps, and inundating low-lying coastal population centers. Further, deforestation may allow the erosion of fragile tropic soils, increasing the silt carried by rivers and significantly disrupting riverine and marine ecologies. Finally, the destruction of rain forest habitats will mean extinction for some of the earth’s most striking animal species. Once gone, of course, these creatures can never be replaced. It is the shared responsibility of all nations to guard against major climatic change and to protect the marvelous variety of life on earth. Thus, tropical deforestation must cease. These noble sentiments are increasingly being given practical import as national and international agencies make development assistance conditional on the adherence by developing countries to what the donors view as “sound” environmental policies.

Needless to say, this concern over the environment may not find a sympathetic audience in nations where clearing of the rain forest may be viewed as a key element of plans to increase agricultural output. Developing nations may perhaps be forgiven for feeling that they are being asked to bear a disproportionate share of the burden of protecting the global environment. They might correctly point out that large portions of Europe and North America were deforested long ago to make way for agricultural and industrial development, long before environmental concerns had achieved their current prominence. Further, it may seem silly to worry that the destruction of rain forests will reduce the global capacity for converting carbon dioxide to oxygen while the industrialized world daily produces vast quantities of carbon dioxide through the combustion of fossil fuels. Finally, maintaining exotic animals in their native tropical habitats for the benefit of northern tourists may not always appear to constitute a social goal on the same level with growing enough food for an undernourished local population. In short, who are these rich northerners to tell us how to manage our own environment?

If an example closer to home is desired, one might wonder how the United States might react to a demand from, say, the European Community that all research into genetic engineering be halted until an international body has set safety standards for such work and until regular international monitoring of U.S. compliance with these standards can be organized. The ensuing rounds of national action and reaction could bring some quite surprising political and economic developments.
Contraband Information

The observation that recent technological developments have revolutionized communication has become a cliché. The capacity of communications channels has expanded enormously, and the costs of using these channels has fallen dramatically. Equally true, but not as widely recognized, is the fact that national capabilities to monitor or to control the flow of information, particularly flows of information that originate beyond their borders, have declined. When radio or television transmitters were few and their range was short, national governments could control to a large degree the information that was available to their own citizens. Domestic transmitters that broadcast offensive information could be closed down, and offending transmissions from a relatively few foreign transmitters could be jammed. The proliferation of communications satellites and cheap, small-scale receiving equipment, however, has made possible nearly universal access to any information broadcast via satellite. The enormous capacity of these satellites and the continually falling costs of satellite transmission have placed satellite transmissions within reach of any organization with a little money and access to an uplink. One of the implications of these developments is that control of information rests increasingly with whoever controls satellites and uplink facilities and not with local authorities where satellite signals may be received.

Nations have for a long time resisted the dissemination of certain kinds of information. Repressive governments resist broadcasts that may foment opposition. Democratic governments often resist the transmission of what they consider pornography. One idea that surfaced in our discussions was that the growing ease of communication might lead to an increase in the flow of what national governments—even the democratic governments of the industrialized West—might consider "contraband" information. Imagine, for example, U.S. reaction to broadcasts that provided detailed information on how to manufacture bombs, how to counterfeit currencies, or where the most vulnerable points of a nuclear power plant are. What would be the reaction to a regular broadcast of obviously coded messages, suspected perhaps of giving operational guidance to foreign espionage agents or terrorists operating in the United States? How would we react to something as simple as a rebroadcast of internal communications of law enforcement agencies? In all of these cases, the most effective form of action might be to inhibit the offending broadcast at its source. But what should be done if that source is foreign?
Dealing with International Terrorism

A number of recent terrorist events have illustrated current ambiguities about where responsibility for dealing with terrorists lies. When Americans are seized on an Italian ship in international waters and held as hostages for the release of prisoners held in Israel, who should negotiate with terrorists? Who has power to refuse or accede to their demands? Who has the right to take armed countermeasures? And who bears responsibility for preventing attacks in the first place? Already we have seen relations between close allies strained because one nation took actions that another reserved to itself.

These are obviously not simple issues. The power to negotiate with terrorists, to refuse or to accept demands, is often the power to influence the vital interests of other countries, and there is no reason to expect national interests always to coincide. A clever terrorist will choose his targets specifically to exploit divergent interests among allies who may agree on opposition to his ultimate goal. What emerged from our discussions was an observation that terrorist attacks affecting more than one country were almost certain to become more prevalent, and that thought about and planning for coordinated responses to such attacks have been inadequate.

International Boundaries in Space

A final interesting speculation on the meaning and significance of international boundaries concerned the extension of these boundaries into space. With the development of antisatellite weapons, nations—at least the more technologically advanced nations—will gain the capability to enforce claims on certain areas of space. And it is not difficult to imagine reasons why nations might prefer to exclude other nations’ spacecraft from some portions of the sky. National security interests might suggest the prohibition of reconnaissance satellites in certain orbits or certain positions in geo-synchronous orbits. A desire to protect against the loss of important space assets as a result of surprise attack might suggest the establishment of “keepout zones” around certain essential space platforms. The full implications of new means for enforcing property rights in space have apparently not yet been considered in U.S. policy planning.
X. MAJOR CONFERENCE THEMES

The discussions noted in this digest of conference proceedings cannot be easily summarized. This is not surprising. Our primary aim in convening the conference, after all, was to generate informed speculation on a diverse set of topics. We hoped to identify possible future developments that up until now have received inadequate attention from researchers, policy planners, and policymakers. The diversity of the concerns reflected in the preceding sections of this digest and our resultant inability to summarize them are, in a sense, measures of the success of the conference.

For all this diversity, however, there were some general themes that seemed to pervade all of our discussions. These themes take a variety of forms: shared methodological concerns, major economic or political trends that are reflected in many of the possible developments noted in our discussions, and an apparent fascination with particular countries. In this concluding section, we will note a few of these general themes. In doing so, we will also note a few additional points that arose during the conference but do not fit neatly into any of the preceding sections.

Methodological Concerns: How Should We Think About the Future

It seems that there are very few international economic developments—very few developments of any sort, for that matter—that can be characterized as totally surprising. In retrospect, it is almost always possible to find somebody who predicted any particular event. In our discussions, we were unable to identify any examples of economically or politically important past events that had been completely unanticipated.

Many events have, however, caught us unprepared to deal with them, for various possible reasons. Perhaps we failed to understand the potential significance of the event in question and therefore failed to formulate suitable contingency plans. Perhaps the warning that such an event was possible came from a discredited or unrecognized source. Perhaps a credible warning simply failed to reach those with the power to act on it. Perhaps we simply assigned too low a probability to the event’s occurrence and, because our capacity to make contingency plans is limited, we concentrated on what we thought to be more likely developments. For whatever reasons, events continually catch us unprepared. We continue to be “surprised.”
The ultimate purpose of our conference was to render some future “surprises” less surprising by drawing attention to them today, encouraging researchers, policymakers, and policy planners to consider them more carefully. We chose to approach this end by convening a panel of highly regarded observers of the international scene (no problem of credibility here, we think) and asking them to identify particular areas where current U.S. policy preparations might be inadequate. We sought to change perceptions about the significance or the likelihood of at least a limited number of potential developments, and thus to encourage more preparation for their possible occurrence.

We did not specifically address the subjects of how one identifies potentially surprising developments, why it is that certain potential developments are ignored, or how policymakers might do a better job of dealing with a necessarily uncertain future. Neither did we inquire specifically into what other steps might be needed after potentially important developments have been identified. Naturally enough, though, these questions floated throughout our discussions, and most of our participants touched on them in one way or another.

The most frequently cited failing of policymakers and planners in preparing for an uncertain future was an overreliance on extrapolation as a forecasting technique. This is an understandable human failing. Extrapolations are generally easy to understand. They are, after all, based on the continuation of the circumstances and the conditions that we see around us already. For this reason, extrapolations are easy to sell in political and commercial environments. To argue that current trends may not continue, one has to identify potentially complex and perhaps difficult to understand forces that will change these trends. This is almost always more difficult than pointing out where current trends will lead. Also, in many cases a continuation of current trends is the most likely future. We can make plans for only a limited number of contingencies, and often we quite reasonably concentrate on the most likely outcomes. We may recognize that deviations from current trends are possible, but we tend to ignore them because they seem fairly unlikely.

Extrapolation has a more pernicious attraction, though. We generally understand present conditions better than the wide variety of possible deviations from them. Our analytic structures, our data reporting mechanisms, and our forecasting methodologies are all based on our understanding of current conditions. The result is that we have relatively “hard” information about current conditions and can make fairly detailed, consistent, and often accurate forecasts about the future, as long as fundamental trends and mechanisms persist. We can therefore make precise and compelling recommendations about policy in a future version of the present environment.
In contrast, our understanding of conditions and policy needs in the event of a deviation from current trends must often be based on "soft" information. We have to guess, for example, how economies may behave in circumstances different from any we have observed. Factors may become important that we have no particular reason to measure today and which we therefore know little about. Our descriptions of events that deviate from current trends will be more qualitative, less complete, and more speculative than our descriptions of situations that we understand better. A number of our participants noted that soft information seems often to lose out to hard information, even if the hard information is not entirely relevant. A policymaker may be understandably reluctant to adjust a policy that has been finely tuned to a precise and well-specified extrapolated forecast in order to accommodate the possibility that that forecast might be wrong in ways that cannot be fully specified. Economists have long recognized that misgivings about a particular model are generally not enough to convince people to stop using it. It takes a model to beat a model, and often the only model available is a form of extrapolation.

The practical import of these observations is that the most fruitful method for identifying potentially surprising developments is often a careful review of conventional wisdom. Deviations from this conventional wisdom will be surprising, almost by definition. More to the point, though, excessive concentration on the conventional wisdom may result in a tendency to underestimate the probability of deviations from current trends. Much of the speculation reflected in conference discussions was the result of someone's questioning conventional wisdom or the continuation of current trends.

Simply identifying possibly surprising events, however, is not enough. Repeatedly our participants noted the need for a policy process that recognizes the inevitable uncertainty about the future. Some spoke of the need to design policies and a policymaking apparatus that allow rapid response to changing conditions. Others noted that the only certainty in some areas of policymaking is the overwhelming uncertainty about what will happen in the future. One must therefore avoid whenever possible committing oneself to irreversible courses of action. An exaggerated desire for policy flexibility, however, can lead to ineffective policy. Policies that can be redirected easily are often inconsequential policies in the first place. The less a policy is intended to accomplish, the easier it is to change, and it is unlikely that effective policies can be completely flexible. Irreversible commitments must sometimes be made. The trick is to make these commitments with as full an understanding as possible of what the future might hold and to build in a sort of selective flexibility—the ability to change course in
certain circumstances. The practical problem, then, becomes one of identifying in advance those circumstances that may require change. This, of course, was the primary purpose of our conference.

An additional interesting methodological challenge was posed but not really answered during the conference. One participant noted the attractiveness of trying to devise “self-denying” forecasts—forecasts which, once made, are unlikely to come true. He suggested that simply recognizing the possibility of some undesirable events might go a long way toward making their occurrence less likely. The flow of conversation carried us away from this idea without any specific examples of such “self-denying” forecasts being offered. The idea remains an intriguing one, however.

The Globalization of Economic Phenomena

The basic premise for this conference was that there exist today economic phenomena that are truly international, neither the causes nor the consequences of which are confined to a single country. This is, of course, not a new observation. The increasing interdependence of national economies has been recognized and discussed at great length for years. This interdependence was well understood by all our participants, and the importance of the links among national economies was reflected in all our discussions.

If anything novel in this regard surfaced during our discussions, it was the realization that not only economic phenomena have become international, but also economic actors. In particular, much attention was given to the extranational nature of modern multinational enterprises. The observation that multinational enterprises often have interests that are distinct from those of any particular nation and that they increasingly have the power to pursue these interests even in the face of national opposition constituted a strong theme running throughout our discussions. That divergences of interest between multinational enterprises and the governments of developing countries could pose problems for both sides has long been recognized. What arose from our discussions, however, was a recognition that relations between multinational enterprises and the governments of the major industrialized countries may also become increasingly a problem and that in a contest of wills governments may not always prevail.

It was noted, for example, that both international trade patterns and debates over trade policies will increasingly be shaped by the relative strengths of multinational enterprises and national governments. The former will be seeking to shift production in search of lower costs and improved market access, while the latter will be seeking to maximize
local employment and income. Questions were also raised about how national labor unions and national laws would deal with multinational companies capable of shifting production in search of compliant labor unions or accommodating laws. Concerns were also raised about the international transfer of technology within a multinational enterprise. Already, difficulties have arisen between the United States and its European allies as a result of U.S. efforts to restrict the sales of certain products by the foreign subsidiaries of multinational firms headquartered in the United States.

There was also speculation that the sprawling nature of multinational firms might make easier the unauthorized dissemination of sensitive technical information. If a U.S. manufacturer of sensitive electronic components for the U.S. defense establishment is also involved in producing electronic components at foreign plants for foreign interests, how can one insulate the sensitive U.S. work from the foreign work? The foreign operations might legitimately benefit from the application of sensitive technology developed for domestic defense work. Engineers and designers will share ideas and techniques; if they do not, what is the point of having both operations as parts of the same firm? But who is to determine what technology is sensitive and what is not? Who has the right to determine when a technology can be shared? In a deeper sense, who actually owns and controls the technology used by this firm? Our discussions suggest that relations between multinational enterprises and national governments will prove to be a major issue during the next decade.

The U.S. Role in the International Economy

Thirty years ago, it would perhaps have seemed strange to discuss how U.S. policies should be adjusted in the face of uncertain international economic conditions. The United States was the dominant factor in the international economy. Times, of course, have changed. The United States now accounts for a much smaller share of world economic activity than it did thirty years ago, and U.S. interests—both economic and political—are more strongly influenced by economic developments abroad. The United States no longer determines the course of the world economy, and U.S. policies must be continually adjusted to accommodate changing conditions abroad and the needs and demands of other nations.

The proper role for the United States in the world economy of thirty years ago was clear. The United States was the obvious leader in most economic matters, and U.S. interests were best served by exercising leadership. Today, the issue is not so clear. Certainly, the United
States remains the largest and most influential economy in the world, and much of the responsibility for leadership of the world economy still falls to the United States. Just as certainly though, management of the world economy is now a shared responsibility. The United States neither can nor should seek undisputed leadership in all economic matters today.

This realization raises questions about the conduct of U.S. economic and foreign policy. To what extent and in what areas is it in the national interest to seek leadership in world economic matters? When might we be better off to allow or to insist that responsibility—with all its attendant costs and risks—pass to other countries or to international bodies?

Questions about the proper role for the United States in the international economy constituted a steady undercurrent to our discussions. It is clearly recognized, for example, that any “solution” to the debt problems of developing nations will require the active involvement of and probably an expanded role for such international institutions as the World Bank and the IMF. Yet U.S. interests are particularly at stake here—because U.S. creditors are most heavily exposed to debtor countries and because democratic government in these countries, a major goal of U.S. foreign policy, is threatened by the need for continuing austerity measures. Thus, a total abdication of responsibility to international organizations is neither possible nor desirable. But what is the correct sharing of responsibilities?

Other possible developments noted in the preceding sections would require a delicate division of responsibilities between the United States and other countries or international bodies. Economic and political relations with Japan and Mexico will require a careful balancing of U.S. and foreign interests. Obviously, the future of the exchange rate and international trading regimes are matters of great concern to all nations, and progress toward more attractive arrangements of either type will require international cooperation. Yet, the U.S. role in both these areas must be prominent, and as we have noted in the case of the exchange rate regime, there may even be a case for unilateral U.S. action. Similarly, the United States is not alone in the responsibility to deal with problems raised by refugees from economic or political hardship. But because the United States has been a major destination for recent waves of refugees, U.S. policy will influence strongly the pressures that other countries will feel. This list of examples could go on. The point is simple: future developments are almost sure to raise serious questions about the appropriate role for the United States in the larger international economy.

An interesting debate arose during our discussions over one particular aspect of U.S. economic leadership. At issue was the importance of
continued U.S. leadership in scientific and technological matters. One participant noted with some alarm the possibility that major technological advances might in the future be made more often abroad and not in the United States. This loss of technological leadership, he argued, could seriously damage U.S. ability to compete in international markets. Technologies developed elsewhere, he admitted, can often be adapted to use in the United States. But he saw important advantages in having the original technological breakthroughs occur in the United States. Adoption of foreign technologies inevitably involves some lag, he noted, during which others enjoy access to new technologies while their U.S. competitors may not. Further, he argued, there are important benefits from having the engineers and designers responsible for turning a new technology into a marketable product working for the same firms, attending the same conferences, or otherwise being closely in touch with the scientists responsible for the original breakthrough. Only thus, he continued, could full advantage of a new technology be enjoyed. There might also be important spinoffs from major technological developments. The very process of creating scientific or technological advances, he argued, can generate other innovations or support the technical infrastructure necessary to make further innovation possible. These secondary advances can be expected only in the country where the original advances were made, where scientists and engineers engaged in the original effort will regularly “rub shoulders” with others who might benefit from their work. The example of benefits that had accrued to U.S. science and industry as a result of the space program is overworked but nonetheless valid, he asserted. Finally, royalties and revenues from licensing arrangements generally accrue to the original developers of a technology. To leave scientific leadership to others, he concluded, would be to allow the erosion of a major source of U.S. foreign receipts.

Other participants registered strong disagreement with this view. They thought it plausible that important benefits accrue to the nation that first develops a new technology, but they stressed that neither the size nor the actual existence of these benefits had been demonstrated. There could be no doubt, however, that developing major new technologies is an expensive undertaking, and there is no clear evidence that these costs are recouped through licensing arrangements, royalty receipts, or the sale of patent rights. Further, the postwar history of Japan demonstrates that scientific leadership is not an absolute requirement for a highly competitive position in world markets. Some technological breakthroughs, they conceded, have important national security implications, and one would obviously prefer that these breakthroughs happen in one’s own country. Other new technologies,
however, are likely to be adopted very quickly with their full benefits intact by all nations, no matter where the technology was first developed. One might reasonably be indifferent to where these advances were originally made. By way of example, one participant noted that he fervently hoped that the next breakthrough in biochemical warfare would be accomplished by U.S. scientists. He really did not care, however, whether U.S. or, say, French researchers first developed an effective vaccine against AIDS. In between these two admittedly extreme cases is an array of possible technological advances about which we know rather little. Which of these might reasonably be expected to provide important special benefits to the country first developing them? And which could just as well be left to others to develop?

The answers to these questions have important implications for policy. Should the United States strongly support scientific research in order to safeguard the U.S. competitive position? If so, are particular areas more promising or more critical than others? In a more extreme case, should the United States consider impeding the flow of certain kinds of technical information to foreigners (beyond, of course, information directly relevant to national security)? Or should we allow and insist that other developed countries allow the completely free transfer of technical information? No solid basis exists today for answering these questions. Our discussions suggest that further study of these issues, perhaps a few careful case studies noting to whom the benefits of important past technologies accrued, might prove valuable.

Japan

Perhaps the most pronounced general theme running through our discussions was the growing importance of Japan—as a major factor in shaping the international economic environment; as a necessary focus for U.S. economic and foreign policy; and as a source of international economic surprises. Our discussions seemed always to have a way of coming back to Japan. We speculated on the role Japan might play in determining global interest rates. We noted that a widely perceived "yen problem" seemed to lie behind most demands for international monetary reform. We worried over the consequences of heavy Japanese investment in China. And we reminded ourselves that conflicts between the commercial interests of Japan and the United States are inevitable and will constitute major problems for U.S. policymakers during the next decade. When concerns about U.S. scientific and technological leadership were raised, the fear was that this leadership might most easily pass to Japan. The overwhelming success of Japanese
exporters in the last decade has brought calls for protection and trade restriction both in the United States and Europe and may therefore constitute the most serious obstacle to the preservation of a liberal trading regime. We discussed the advantages and disadvantages of current Japanese policies that effectively prohibit entry to Japan by refugees. We also considered the consequences of Japan's rearming and assuming greater responsibility for guaranteeing security in the western Pacific.

We noted that Japan's obvious economic success in recent years has brought about a noticeable change in attitudes—both popular and elite—in the United States and in Europe. There seems to be a growing belief that "the Japanese must be doing something right," and this seems to have led to increased interest in the rest of the industrialized world in copying Japanese methods and policies. In some cases this interest is welcome. Lifetime employment schemes, just-in-time inventory arrangements, and the use of bonuses as an important element in worker compensation are all ideas that might be profitably applied in some U.S. or European industries. In other cases, though, too much enthusiasm for what are thought (sometimes wrongly) to be important elements of the Japanese economic system may encourage adoption of policies in the West that are likely to be problematic. Alleged Japanese targeting of certain sectors for special government assistance, for example, has repeatedly been cited in arguing that the United States should adopt "a coherent industrial policy." Few would argue that coherent policies are unattractive, but many are concerned about the consequences of the government's trying to identify future industrial "winners and losers." Similarly, the widespread, and not wholly unjustified, view of Japan as favoring "organized" rather than market-oriented international trade seems to lie behind calls for the United States and Europe to retreat from the "failed" conception of trade reflected in the GATT.

Certainly, Japan was not the only country to figure prominently in our discussions. The Soviet Union, Saudi Arabia, and (perhaps more interestingly) Mexico were all singled out for special attention. But none of these countries approached Japan in being frequently noted or noted in such a wide range of contexts. Japan has been much in the public eye in recent years, and it is perhaps not surprising that this public attention has lent an extra prominence in the minds of our participants to questions about Japan's role in the international economy or about Japanese-American relations. But even making allowances for the current fascination with all things Japanese, it is hard to escape the conclusion that the major economic challenges to and opportunities for U.S. policy during the next ten years will be somehow connected with Japan.
Our conference was specifically designed to encourage speculation about many topics, and the preceding sections of this digest are evidence that the conference was a success in this regard. It was not our aim to identify a single focus for additional research and planning to deal with an uncertain world economy. We succeeded in fact in identifying many promising avenues for future research. For all of this, retrospective reflection on our discussions leaves the distinct impression that the most important policy questions of the next decade, and therefore the greatest demands for research and planning, will be focused on Japan.
Appendix

INTERNATIONAL ECONOMIC SURPRISES
The Rand Corporation, Santa Monica, California
December 5 and 6, 1985

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INTERNATIONAL ECONOMIC SURPRISES

Agenda
The Rand Corporation, Santa Monica, California
December 5 and 6, 1985

Thursday, December 5

9:00  Introduction
9:15  Developments in International Financial Markets and in International Capital Flows (Robert Aliber, Leif Olsen)
10:45  Break
11:00  Developments in Patterns of International Trade and in the International Trading Regime (Kenneth Dam, Gary Hufbauer)
12:30  Lunch
2:00  Science and Engineering Developments; Technological Change (John Moore)
3:15  Break
3:30  Developments in Energy and Agricultural Markets (energy: William Hogan; agriculture: Robert Evenson)
5:00  Adjourn
7:00  Cocktails and dinner at The Chronicle (2640 Main Street, Santa Monica)

Friday, December 6

9:00  Threats to the “Commercial Order” (Martin Shubik)
10:00  Break
10:15  National Borders, Legal and Illegal Commerce, Control of International Financial Flows (Thomas Schelling)
11:15  Break
11:30  Immigration and Population (Martin Lipset)
12:30  Lunch
2:00  Labor Markets (Ray Marshall)
3:00  Break
3:15  Regional Conflict (Robert Hunter)
4:15  Adjourn