THE ROLE OF MARKETS AND GOVERNMENTS

IN THE WORLD FOOD ECONOMY*

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Probably no issue creates more political tension on the international scene than the issue of the role of markets and of governments in the world's economy. We live in an ideological world. The respective roles of markets and governments go to the heart of how societies organizing their social, economic, and political activities.

Those opposed to markets use various arguments Some fear markets and the lack of discipline they imply for certain groups in society. Others dislike the income distribution that results from dependence on markets. Still others simply prefer a stronger sense of direction to economic activities than markets imply, especially if the direction of the economy which markets determine is not consistent with their particular values and beliefs. For each of these groups, governments or the public sector should have a strong role in the allocation of resources and in the distribution of income.

Juxtaposed against these groups are those for whom governments as organizers of economic activities are anathema and who see markets as the only way to organize such activities. For these groups, government intervention leads to a loss of economic efficiency, results in interference in the "natural" forces of markets in distributing income and/or results in the excessive politization of economic activities.

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The truth of the matter, of course, is that neither of these extreme positions is technically defensible. Clearly, markets can do some things quite well. But there are other things they don't do very well at all. The same for governments. Hence, the key question is not whether economic activities will be organized either one way or another. Instead, the important policy issue is to decide what activities should be organized by means of markets and what activities should be organized by means of the public sector. As we will see later, this is in large part an empirical question, and one that has to be resolved in the context of the particular economy and its particular stage of development

Not so many years ago individual countries resolved these questions in large part within the confines of their own body politic, and by means of political processes appropriate to that body politic. The world has changed greatly, however, and it is no longer such a simple matter. Throughout the post-World War II period international trade has grown more rapidly than has world GNP. This has led to a growing internationalization of the world's economy. Under these changed conditions, the welfare of individual countries depends increasingly on its international trade. And increased international trade inherently implies an increased interaction with the international economy.

When the scope for my paper was originally defined, the expectation was that I would take the perspective of individual nations in considering the respective roles of governments and markets. As I worked on the paper, however, I found such a perspective confining, and not very relevant in considering the major issues we face in the world food economy. Hence, I broadened it to include the more complex task of identifying the role of governments and markets in the international economy.

Other developments in the post-World War II period are equally as important in raising questions about the proper roles of markets and governments. For example, a large, well-integrated international market for capital has evolved over the last two decades that links the various economies of the world together as effectively and as importantly as does trade. Interestingly, this market is almost completely unfettered with government rules and regulations. Equally as important, the private banking system seems to have made major errors either in evaluating the repayment ability of those who were borrowing money, or in failing to make any evaluation at all. This has put the entire system at risk.

Another important development was the breakdown of many elements of the Bretton-Woods Conventions, the set of rules and regulations established at the end of World War II to manage the international monetary system. One such breakdown was the shift from what was essentially a system of fixed exchange rates to one that is essentially a system of flexible exchange rates. This occurred in 1973 when the U.S. devalued the dollar for the second time in slightly over a two year period, closed its gold window and essentially forced the world to a system of floating exchange rates.

Interestingly, enough it was the hope of U.S. authorities at that time that this change would bring about another change in what had been another important pillar of the Bretton-Woods Conventions - the dependence on a limited number of reserve currencies. More specifically, the U.S. hoped that the dollar would become less important as a reserve currency. In point of fact, however, the world is still very much on a dollar standard.1/

1/ McKinnon, Ronald I., "Currency Substitution and Instability in the World Dollar Market", American Economic Review, 72(3): 320-333 (June, 1982).

Changes in trade patterns have also raised important organizational and institutional questions. For example, the General Agreement on Trade and Tariffs (the GATT) was designed and organized largely by the industrialized countries of the West. Moreover, these countries were the main signatories to the GATT. Since trade in the immediate post-World War II period was largely among the industrialized market economies, this created few problems. However, over the last decade the centrally planned and less developed countries have played an increasing role in international trade. Consequently, a larger and larger share of international trade takes place without the protection and discipline of the GATT.

Finally, attitudes toward trade have changed significantly over time. In the immediate post-World War II period the industrialized market economies, led by the U.S., were very much free-trade oriented. The centrally planned and less developed countries were both autarchic in the sense that they wanted to cut themselves off from the international economy and strongly motivated by government intervention and control in such trade as they did permit. Today, these positions are almost completely reversed, especially with respect to the importance of freer trade. It is the industrialized countries that are becoming protectionist and interventionist. The centrally planned and less developed countries, on the other hand, are becoming increasingly outward oriented and concerned about freer trade - at least with respect to that trade that benefits them.

The less-developed countries have long been dissatisfied with the international economic system that emerged at the end of World War II. Perhaps the first dramatic expression of this dissatisfaction was with the first UNCTAD (UN Conference on Trade and Development) back in 1964.1/

1/ For an analysis of this early initiative, see Johnson, Harry G., Economic Policies Toward Less Development Countries (Washington: The Brookings Institute, and London: George Allen and Unwin, 1967).

Out of a series of such Conferences there has evolved what is referred to as the North-South debate, a competition between the less developed countries and the industrialized West, with the primary focus on the LDC's being against the U.S.

To date the so-called North-South debate might more properly be called the North-South Dialogue of the Deaf. Neither side appears to pay much heed to what the other is saying, nor to make any semblance of an accommodation that might lead to constructive negotiations. The centerpiece of the South side of the Dialogue is a plea for a New International Economic Order (NIEO). This plea has two main components: (1) a plea for increased income transfers from the industrialized countries, and (2) a demand for international commodity agreements which would protect the less developed countries from what they <u>perceive</u> as a chronic tendency for the terms of trade fo shift against them.

The North, on the other hand, has not developed a similar cohesive negotiating posture, nor does it appear to have a clear notion of how it might respond to the demands of the South. Until recently, if there was any unifying theme to policy initiatives on the part of the North it was to argue for increased dependence on trade and greater dependence on market forces. As these countries have become increasingly protectionist motivated in recent years, however, even that theme has been muted.

An important premise of my paper is that there <u>is</u> need for a reform of our international economic order and of how we organize international economic activities. I will attempt to lay out the major reforms and changes which I believe we need, and to suggest how we might move towards them. In the process of discussing these proposed changes and reforms I will attempt to discuss the principles that are involved.

Many of the principles I will discuss are principles that are as relevant to domestic economies as they are to the international economy. In fact, what I essentially attempt to do is to draw on principles that have been developed over time for organizing national economies for the insights they offer to the organization of the international economy.

A couple of caveats are in order before I move into the main body of my paper. First, although my topic has to do with the world food economy, one cannot discuss the larger organizational issues without considering the broader range of economic activities such as trade in industrial products. Second, any attempt to change and reform our present international institutions has to be heavily laced with a strong dose of realism. It is one thing to talk about the benefits of free labor and capital markets. It is quite another to move in a discrete fashion from where we now are to where we might be. National entities and national identities will not disappear overnight, nor will we change how economic activities are organized in individual countries. We can say something about how countries relate to each other, however. The challenge today is to determine how we might take small steps in the right direction in improving how we relate to each other.

Finally, my discussion will inevitably be sketchy. Neither time nor space permits an analysis and prescription in sufficient depth to lay out detailed guidelines. However, perhaps my paper will motivate some constructive discussion that will put us on the fabled first step of a long march.

The remainder of my paper is organized into four parts. First, I will discuss the international monetary order, then the product markets or trade, followed by the capital and labor markets, and income redistribution. At the end I will have some concluding comments.

The International Monetary Order

A stable monetary order is generally assumed to be essential for a stable economic order. A stable price level is required if resources are to be allocated efficiently and if capital markets are to perform efficiently. Given the proclivities almost all of us share for higher per capita incomes, efficiency is a desirable goal. Given the increased dependence of most countries on international capital markets, the improved performance of these markets is also a desirable goal.

Under the provisions of the Bretton Woods Conventions questions of the monetary order were largely a domestic or internal issue. Countries were mandated to resolve problems in their external accounts by changing their domestic policies. In this way individual countries were to be precluded from dumping their problems abroad by pursuing beggar-thy-neighbor competitive devaluations, as some of them did during the 1930's

As long as the supplier of the major reserve currency for the world (the U.S.) pursued monetary policies that maintained a relatively stable price level, and as long as international capital markets were either atrophied or non-existent, that system worked reasonably well. But when the U.S. began to inflate its economy because it was unwilling to raise domestic taxes to finance a war and a massive expansion of its social welfare programs,1/ the game changed. The problem was further complicated by the emergence of international capital markets, and the granting to the International Monetary Fund (IMF) of the right to create international reserves in the form of Special Drawing Rights (SDR's). Much of the world inflation of the 1970's was due to the excessive pumping of dollars into the inter-

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1/ An important advantage the issuer of the world's reserve currently has is that it can collect a tax from the world's economy by pumping the system up with its money.

national system by the U.S., and by the creation of large amounts of additional international reserves by the mere stroke of a pen by the IMF. The large increase in the value of gold at this time exacerbated the problem by increasing the monetary value of gold reserves.

Conventional wisdom has it that individual countries can isolate themselves from inflation in the international economy by letting their exchange rates float. Two comments on that "wisdom" appear to be in order. First, when international capital markets were virtually nonexistent, there may have been some basis for that proposition. However, it is seriously weakened by the extent and efficiency of the present international capital market. Second, the consequences of exchange rate realignments are not innocuous. The purchasing power parity doctrine in which exchange rates reflect only price level differentials is valid only when international capital markets are unimportant. Once major capital flows become possible, and actually occurs, exchange rate realignments can induce major shifts in the production sectors of individual countries.

This problem becomes especially serious when the world is subject to major monetary disturbances, as it has been over the last decade or so. Since about 1968 the United States has been an important source of such disturbances with its stop-and-go monetary policies. But the IMF also has contributed, especially with the significant increase in international monetary reserves in the early 1970's - mostly in the form of newly-created SDR's.

The shift to a system of floating exchange rates in the presence of a well-integrated international capital market is of special significance to international commodity markets,[1/] particularly in light of

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1/ For a more detailed discussion, see Schuh, G. Edward, "Floating Exchange Rates, International Interdependence, and Agricultural Policy", presented at the Meetings of the International Association of Agricultural Economics, Banff, Alberta, Canada, September 3-12, 1979.

the role and importance of the U.S. in those markets. Under such a regime trade sectors play a much greater role in bearing the consequences of changes in monetary policy. Tight monetary policies in the U.S. attract capital from abroad, and this bids up the value of the dollar. An increase in the value of the dollar damps off exports and translates international prices into the U.S. economy at a lower level in dollar terms. Similarly, easy money policies cause a capital outflow, which in turn causes the value of the dollar to decline. This stimulates exports and raises agricultural prices in the U.S.

Similar adjustments occur on the import side as well. A rise in the value of the dollar in response to tight monetary policies causes the price of imports to decline in dollar terms. This impacts important competing sectors such as the sugar industry, the automobile industry, and steel. Similarly, a decline in the value of the dollar in response to easy monetary policies makes imports more expensive in dollar terms, thereby providing a stimulous to import competing sectors.

Thus one sees that the adjustment of the economy in response to changes in monetary policy takes place importantly in the export and import competing sectors. Agriculture, as both an important export sector and as an important importer, is therefore subject to monetary shocks when monetary policies change. And the problem is that our monetary policy has been very unstable since about 1968. An important share of the instability of U.S. agricultural markets in the 1970's is due to this monetary instability. Under the old fixed exchange rate system with an atrophied or non-existent international capital market such monetary shocks were not present.

It should be noted that these disturbances in respose to unstable monetary policy are not limited to the U.S. In the first place, the international exchange rate system can best be characterized as one of block floating. A large number of countries tie their currencies to one of the major reserve currencies, and particularly to the U.S. dollar. For countries that tie their currencies to the dollar, their agriculture experiences the same monetary disturbances as does U.S. agriculture. Mexico is an outstanding example of a country that did not appear to realize there was a difference between tying their currency to the dollar in fixed and flexible exchange rate systems.

It is also important to note that the U.S. is a major importer of agricultural products - second to Japan. Shifts in demand due to monetarily-induced realignments of exchange rates impose similar instability on those countries. This is true whether the currency is tied to the U.S. dollar or whether it floats.

In a world of perfect resource mobility this change in how monetary policy affects the economy under a flexible exchange rate system might not be all that important. However, resource mobility between agriculture and the rest of the economy is notoriously sluggish. The consequence is an over-commitment of resources to agriculture during some periods, and a serious adjustment problem during others. U.S. agriculture currently illustrates this point quite well. As a consequence of a weak dollar, additional resources were induced into agriculture during the latter half of the 1970's for the first time in approximately a 50-year period. Now, with a strong dollar, these resources will most likely have to be transferred back out again. Consequently, agriculture faces a serious adjustment problem.[1/] Until this adjustment takes place there will be considerable pressure for protection, for the use of export subsidies, and for price support programs which will have to be protected by the Section 22 waiver. That, of course, is how distortions to free trade become amplified.

More generally, distortions in exchange rates give rise to protectionism on the part of some groups of countries, and to the use of export subsidies on the part of others. They also can create balance of payment problems which give rise to demands for income transfers on the part of the less-developed countries, and to plans for market stabilization schemes and other market interventions.

I see little solution to this problem short of the establishment of an international central bank with a mandate to keep monetary reserves for the international system growing at a measured, steady rate. Such a system would not assure that individual countries did not pursue unstable policies. However, it would remove the onus from the U.S. of having to act like the Central Bank for the world. It would also reduce the exposure of other countries to the consequences of political pressures on the U.S. Federal Reserve Bank and to the monitory instability which results.

A more stable monetary order is a service that has to be provided by the public sector. It is a proper role of government. With such a stable order some of the pressures for protectionism will decline and an environment will be created in which barriers to trade might be reduced. Capital markets will also be able to perform more efficiently, thus setting the stage for a more efficient allocation of the world's resources.

1/ For more detail, see Schuh, G. Edward, "U.S. Agriculture in Transition", testimonty before the Joint Economic Committee of the U.S. Congress, April 1982.

The Product Markets

Markets are a social invention that provide the means for coordinating the individual efforts and activities of a myriad of individuals pursuing their own individual interests. Hayek [1/] makes the important point that we must look at the price system as a mechanism for communicating information if we want to understand its real function. He further argues that the most significant fact about this system is the economy of knowledge with which it operates, or how little the individual participants need to know in order to be able to take the right action.[2/] This point is important because in his view the peculiar character of a rational economic order is determined precisely by the fact that the knowledge which such a system must make use of never exists in concentrated or integrated form but solely as the dispersed bits of incomplete and frequently contradictory knowledge which all the separate individuals possess.[3/] This is what Hayek calls the knowledge of the particular circumstances of time and place.[4/]

Hayek also notes that there is nothing in such a market system which denies the importance of planning. The issue is not whether or not there will be planning. Instead, the issue is who will do the planning - whether it will be done centrally, by one authority for the whole economic system, or whether it is to be divided among many individuals. Competitive markets provide the means for decentralized planning by many separate persons. Whether central planning or decentralized planning will be more efficient depends mainly, in Hayek's

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1/ Hayek, Frederick A., Individualism and Economic Order.

2/ Ibid., p. 86.

3/ Ibid., p. 77.

4/ Ibid., p. 80.

view, on which system can make fuller use of existing knowledge.[1/] Because of the importance he attaches to knowledge of a particular place and time, Hayek obviously believes competitive markets will be the more efficient.

Economic activities in the United States are organized in large part through markets. There is a large public sector, however, and of course a great deal of economic activities take place in the household. These household activities include an important part of the production of human capital for society. They also include crucial activities such as feeding the nation's population and a great deal of the health care and nurturing that takes place. Moreover, some of the more interesting questions associated with development have to do with the transfer of activities back and forth between the market economy and the household.

Unfortunately, we know very little in a systematic way about the household economy. Casual observation suggests that this component of our economy is quite large. Yet the output of this sector tends not to show up as part of our GNP. And except for a few economists concerned with the formation of human capital and the human capital approach to labor markets, very little analytical work has been directed to this sector of the household economy.

For many observers the role of the household is peripheral to the issue of the proper roles of markets and governments. I believe it deserves more than casual reference, however, since much of the current political debate in the U.S. is not over whether economic activities should be undertaken through markets or by government, but whether they

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1/ Ibid., p. 79.

should be done by governments or the household. I refer, of course, to the issues of social welfare and education and training. How these issues are ultimately resolved has important implications for the market economy, since some economic activities will exist in the market economy only so long as strong government programs exist. Moreover, scaling down government in the provision of these services will release resources from the government sector either to the market economy or to the household sector.

Despite these caveats, the issue of the role of government in social welfare, schooling and training programs is very much a choice of whether these activities will be undertaken by government or in the household. The failure to articulate the choices in this way may well lead to bad social policy. Ultimately, it may have a great deal to say about the continued existence of the family unit as we have known it.

To return to my main theme, the role of government in a market economy has been pretty well circumscribed by economists over the year. Aside from having the responsibility for establishing a stable monetary order, the main role for government has been seen as providing a stable civil order - policing and justice - and maintaining competitive markets. The main function in the latter case is to break up monopolies and maintain an anti-trust posture. An exception to the competitive market rule occurrs when economic conditions are such as to determine a natural monopoly - cases where the technical conditions of production are such that economies of size can be realized only with one firm or unit, or when competition could be obtained only with costly duplication. In these cases desirable social policy involves granting the monopoly and either forcing it to act as a competitive firm by a bounty or tax, auctioning off the right to the monopoly so as to tax away the scarcity rent.

Another function of government in a market economy is to provide information which helps make the market more competitive. Information helps establish the conditions which economists assume when they show how markets lead to an efficient allocation of resources. But information is not likely to be produced by the private sector and made readily available to other firms. Given the ease with which information can be passed from one participant in a market to another, it is generally difficult for the producer of such information to recover the costs incurred in producing it. Hence, production and distribution of market information is generally viewed as a proper role of government.

The more general case for government intervension in markets is when there are externalities, or clear divergencies between private and social costs or between private and social returns. In the first case, firms or individuals impose costs on the economy or society that they themselves do not incur, as in the case of pollution. In the second case, the benefits to societies of actions taken by firms or individuals is greater than what the individual can reap. That either leads to underinvestment in such activities by the private sector, or the lack of the activity entirely.

Even when there is a case for government intervention because of divergencies between private and social costs and private and social returns, there remain many questions of precisely how the government should intervene. Taxes and subsidies, for example, can generally lead to an efficient allocation of resources without the government directly becoming involved in the economic activity.

In the case of commodity markets arguments are often made that governments need to intervene in order to reduce risk and uncertainty. This is often the basis for price fixing schemes, and for the holding of reserve or buffer stocks by the government.

D. Gale Johnson[1/] showed long ago that risk and uncertainty could lead to a less than efficient allocation of resources and thus to a loss in output from a given bundle of resources. The issue again, however, is what the proper role of government should be in such circumstances. The provision of improved information is one way to deal with the problem of uncertainty. This involves more than collecting data and making it available in a timely fashion. Data combined with analysis can lead to information which has value. An important example of such information is outlook information which attempt to inform producers and consumers what prices and conditions will be at some future date so that that participants in the market can make better decisions today.

The production of such information implies the existence of publicly supported analytical groups to process the data and do the analysis. The importance of having such groups in the public sector can be readily seen in the case of international commodity markets. Few firms would have the size to gather the data and do the analysis. Even if firms of sufficient size could generate such information, it is not clear that they would be able to recover the costs incurred in producing such information. This further supports the notion of providing this service by the public sector.

Improved information is not the only means of dealing with the risk and uncertainty problem, however. A number of institutions have evolved

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1/ Johnson, D. Gale, Forward Prices for Agriculture, Chicago, University of Chicago Press, 1947.

over the years to provide means of sharing risks and uncertainty or of transferring it from direct participants in commodity markets to other members of society. One such institution is the future market. Future markets do not reduce the instability and risk and uncertainty, in individual markets. They do, however, provide a means whereby producers can stabilize their own price expectations and/or stabilize their income flow. The role of government vis-a-vis such institutions is to see that they are established, that they work properly, and to assure that there is no fraud.

One of the puzzles on the U.S. scene is that future markets are not more widely used by farmers. Gardner[1/] suggests this behavior implies that producers may not be as risk-averse as is generally believed. Moreover, farmers appear to want a "reasonable" price guaranteed with the privilege of gambling for higher prices.

Interestingly enough, an institutional arrangement already exists which provides just such protection - the put-option. Unfortunately, the government has prevented use of such options ever since about 1936. Moreover, U.S. government over the years has provided just such an alternative to the put-option by the commodity programs it implements.

Other such examples could be provided. The important point, however, is to note that there is an important role for government in establishing institutions such as those cited above. In general such institutions will be preferable to direct involvement of the government in economic activities.

1/ Gardner, Bruce, The Governing of Agriculture, The Regents Press of Kansas, Lawrence, 1981.

Another important case where strong government intervention is often demanded is in the management of reserves or buffer stocks. Pressure for such intervention tends to come from three sources: producers in exporter countries, policy makers in less-developed importing countries who dislike the balance of payment consequences of unstable prices, and those generally concerned that without adequate reserves there will be famines. This latter is the familiar food scarcity argument.

A number of comments are in order on this issue. First, the argument from producers in exporting countries generally amounts to a plea for price and income support, not price and income stabilization. To my knowledge there have been no pleas from such groups for reserves to level out or reduce high prices. The requests come only at times of low prices.

Second, the posture taken by the U.S. that importing countries should help carry the burden of reserve stocks is misguided. The economics of stock carrying leans to the side of exporters. Importers really have little or no incentive to carry such stocks, and are not likely to do it. For small countries not able to influence world prices by their actions, the rational policy is to carry extra foreign exchange reserves so that they can acquire supplies when they have a domestic shortfall or when world prices are high.1/

Third, government stocks tend to displace private stock holdings. Consequently, the cost effectiveness of such stocks tends to be quite low. In addition, the management of such stocks often tends to be destabilizing rather than stabilizing. The problems managers of such

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1/Penna, Julio A., "Optional Storage and Export Levels of a Tradeable Product and Their Relationship with Annual Price Variability: The Case of Corn in Brazil", unpublished Ph.D. dissertion, Purdue University, 1974.

stocks face is to know when a particular price fluctuation is a temporary aberration and when it is the start of a trend. Because of this difficulty, the managers make mistakes and increased instability is the result.

Finally, commodity stabilization schemes are a costly means to stabilize balance of payments for the less-developed countries. It would be much preferred to rely on the international financial facilities to deal with balance of payment difficulties rather than to intervene in in international commodity markets.

The issues surrounding stock carrying and food security are important examples of where developments and actions in the international economy lead to externalities that give rise to perceived needs for government intervention. As Gale Johnson[1/] has pointed out so effectively, an important source of instability in international commodity markets is the prevalence of barriers to trade and autarchic commodity policies. The failure to let international prices be reflected to domestic producers and consumers precludes the needed adjustment to changing conditions of demand and supply. Consequently, prices respond in an exaggerated fashion to shocks to those markets.

The key to food security and to more stable commodity markets is to reduce the barriers to trade.[2/] Given the variety of places in which most commodities are produced, it is seldom that bad weather will affect all of those regions at one time. Hence, in the absence of barriers to trade, weather-induced instability in international commodity markets

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1/Johnson, D. Gale, "World Agriculture, Commodity Policy, and Price Variability", American Journal of Agricultural Economics, 57(5): 823-828 (December 1975).

2/These barriers cause the monetary disturbances discussed earlier to have an exaggerated impact on commodity markets.

would be fairly limited. Moreover, there would not likely be a need for buffer stocks other than what normal market forces would induce.

It is important to recognize that trade distortions which cause instability of international markets to be larger than they otherwise would be are of two quite distinct kinds. On the one side of the market are tariffs, undervalued currencies (implicit tariffs),[1/] and non-tariff barriers to trade. Although not exclusively so by any means, such policies tend to be more prevalent among the advanced industrialized countries. It is these countries that tend to protect their agriculture.

On the other side of the market are distortions which shift the domestic terms of trade severely against agriculture. These policies tend to be prevalent among the less-developed countries, and include over-valued currencies (implicit export taxes), explicit export taxes, export quotas and embargoes, and high levels of protection for the industrial sector. These policies tend to reduce the production capacity in these countries, often causing them to shift from being net exporters to being net importers. They also result in extensive forms of agricultural production, with only limited dependence on purchased imports, or imports produced in the industrial sector. This limited use of modern imports limits the flexibility of agriculture in these countries, and when combined with the reduced production capacity they have, cause there to be both more demands on international markets and more shocks to the system.

Reforming the international system and finding ways to deal with these problems have to be high on the agenda for reformers of the current

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1/Japan has persistently undervalued its currency since the early 1960's, Germany has also, but to a lesser extent. Certain of the Green currencies of the EC have also been undervalued.

international system. They are collective issues and not likely to be resolved by the initiatives of individual countries. The incentives for action by particular countries are just too limited.

Participants in the most recent round of multilateral trade negotiations had little stomach for the continuation of those negotiations, nor did they believe at the termination of those negotiations that there was much to be gained from another round of negotiations. But the mutual or collective reduction of trade barriers is the only way sufficient tradeoffs can be generated to create the incentives for a reduction in barriers to trade.

The next round of multilateral negotiations should have a significantly broader negotiating agenda if much progress is to be made in lowering barriers to trade. In the first place, the less-developed countries should be brought in as full-fledged participants. This obviously complicates what has already been a complicated set of negotiations in the past. But the role of these countries in trade is now so great they can no longer be ignored. Moreover, their newly-found interest in trade makes their participation timely.

Second, the full range of trade distortions should be placed on the table. Export quotas and embargoes are as important as barriers to trade as are tariffs and non-tariff barriers. Third, distortions in foreign exchange markets should also be a part of the negotiations. Over-valued currencies may well be the most prevalent distortion to trade. As a tax on exports they have reduced the productive capacity of agriculture worldwide. As import subsidies, they have given rise to the need for high tariff barriers for the industrial sector, especially in the less-developed countries. Very little progress can be made in reducing or eliminating one form of distortion if the other sets of distortions are not addressed.

The problem of under-valued currencies also needs to be addressed. Although used primarily by Japan and to a lesser extent Germany as a general practice, some of the green currencies of the European Community's Common Agricultural policy also constitute over-valued currencies. This distortion may become increasingly important as countries become more trade oriented in response to the need to import more petroleum and other scarce raw materials.

An important innovation in the most recent round of trade negotiations was the attention given to the codes. This emphasis needs to be sustained in any renewed negotiations, with the focus expanded to include the implicit export subsidies that one often reflected in domestic policies.

An important source of permission about further trade negotiations is frustration with the GATT machinery for adjusting trade disputes. This machinery has become very bureaucratic and the delays in reaching judgments are long and costly. The solution to this problem is to reform that machinery as well. Change is going to be needed in any case, especially if the number of countries represented is increased and the range of negotiable topics enlarged. We need to get on with the necessary reforms.

Trade negotiations alone are not the only policy initiatives needed in the trade sector. In the first place, if there is to be trade liberalization, some means needs to be found for dealing with trade adjustment problems. Unfortunately, trade problems are all too often articulated domestically as a conflict between foreign and domestic producers instead of the conflict between domestic consumers and domestic producers which they tend to be. One way to deal with this problem is to have an international means of dealing with the problem. One such means would be an International Trade Adjustment Fund, financed by a tax or "contribution" based on the value of trade for individual countries. This fund would then be used to deal with adjustment problems created by trade liberalization. It would provide an international means for dealing with what is perceived as essentially an international problem.

I must be candid and admit that so far trade adjustment policies have not been very effective. Even the instruments of the 1974 Trade Adjustment Act in the U.S. have seldom been used in a time trade adjustment fashion. But our failure to devise such mechanisms so far should not preclude our making the attempt.

Another aspect of the trade situation is the tendency of exporting countries, especially the U.S., to use implicit export subsidies in the form of food aid to dump their excess production abroad. Once the dollar was devalued in 1971 and 1973 the need for this subsidy disappeared and food aid declined significantly. In recent years no more than five percent of our total exports were shipped on concessional terms.

The dollar has now risen dramatically, and many observers, including this one, believe it is over-valued again as a consequence of the U.S. playing the role of central banker for the world. The weakening of exports and the accumulation of domestic stocks which have resulted have generated political pressures to increase our concessional sales again.

The significance of food aid in the context of trade negotiation is that such aid enables governments of less-developed countries to discriminate against their agriculture by means of trade policies. If these policies which shift the domestic terms of trade against agriculture are to be altered, the penalty for pursuing such policies needs to be increased. Continued use of food aid makes it easy for countries to continue to distort their trade policies.

Clearly, there is a role for food aid to assist other countries in times of natural catastrophe, and possibly as a form of developmental assistance. However, as a means of providing development assistance it should be channeled to facilitate investments in human capital,[1/] and not to provide a bail-out for balance of payment problems or as a means for dealing with recurring production shortfalls at home.

To close this section, it should be noted that trade liberalization per se is not a panacea for eliminating instability from international commodity markets, although it obviously has an important role. The problem of monetary disturbances still needs to be addressed since it is an important source of such instability.

Finally, the discussion in this section has suggested a significant role for what could essentially be called an international government. That role, however, has been limited to setting and monitoring the rules for international trade. If a more effective set of rules can be established and enforced, it will give markets a greater role to play on the international scene. Moreover, reductions in barriers to trade on the international scene may well lead to increased dependence on markets and a freer play of market forces within individual countries. A greater dependence of markets will lead to a more efficient use of

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1/For suggestions along this line, see Schuh, G. Edward, "Food Aid and Human Capital Formation", in Food Aid and Development, New York, Agricultural Development Countil, 1981.

the world's resources.[1/]

The Capital and Labor Markets

Ironically, capital and labor markets seldom are considered in discussions of agricultural policy, yet they may be as important as commodity markets in developing an efficient agriculture. Certainly they are of critical importance in dealing with problems of equity, although in this case also their role is seldom recognized.

In taking our bearing on labor and capital markets it is important to consider the changes that generally take place as agriculture is modernized and as an economy develops. Perhaps the predominant feature of this process - what Bruce Johnston[2/] has called the one universal rule of economic development, is that labor has to be transferred out of agriculture. Parallel to that transfer is the need for an increase in the use of capital in agriculture. New technology is imbedded in new imports, more modern imports are used, and the stock of capital per worker has to increase if per capita incomes of rural workers are to rise. Consequently, if agriculture is to be modernized, and if farm people and workers are to earn incomes comparable to those earned in the nonfarm sector, labor and capital markets (including that for land) have to perform efficiently.

Unfortunately, governments tend to intervene extensively in the wrong way in capital and labor markets, and fail to intervene in the

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1/An important neglected issue in this section is how to incorporate the centrally-planned economies into trade negotiations and how to make them more effectively a part of the world economy. These issues are subjects for a rather extensive paper in their own right.

2/Johnston, Bruce F., "Agriculture and Structural Transformation in Developing Countries: A Survey of Research", Journal of Economic Literature, Vol. 8 (June 1970), pp. 369-404.

proper way. As a basis for discussion it is useful to consider appropriate ways for governments to intervene in factor markets. Given the need to facilitate mobility if large income disparities are not to occur between the rural and urban sectors, it is generally recognized that providing market information is an important role for the public sector. Although word of mouth is an important source of information in labor markets, there is still an important role to be played by employment services which help employers identify where unemployed workers are located and to help workers to identify where alternative employment exists.

Under certain circumstances a case can be made for subsidizing labor mobility. Given that labor moving out of agriculture to alternative employment typically has to move geographically as well, the costs - both psychic and pecuniary - can be significant. Affecting or reducing these costs can make for a more efficient allocation of resources, an important externality, and thus can be justified as a proper role of government. Certainly it is more desirable than to intervene in commodity markets as a means of offsetting the consequences of a low rate of migration.

Another proper form of government intervention in labor markets is to invest in formal schooling and training of the labor force. Capital markets to produce human capital tend not to be efficient, in part because there are important externalities associated with education. Yet schooling, for example, has been found to be an important means of accelerating outmigration from agriculture.[1/]

1/Gisser, Micha, "Schooling and the Farm Problem", Econometrica, 33: 582-592, July 1965.

It is important to note that an important cause of the apparent premature migration from agriculture is the tendency of governments to shift the domestic terms of trade against agriculture by large distortions in trade policy.1/ Reducing such distortions is an important means of reducing the outmigration and in turn the clogging of intersectoral labor markets that has been so characteristic of many less-developed countries.

In addition, it should be recognized that due to the selective nature of migration in favor of the young, well-educated and entrepreneurical, there may well be important negative externalities imposed on the region supplying the migrants. When combined with the negative externalities associated with large concentrations of people in urban agglomerations, there may be a case for government intervention to decentralize the industrialization process.2/ Such interventions will reduce the need for geographic mobility while increasing intersectoral mobility. This can make for a more efficient allocation of the nation's resources, and also for a more equitable distribution of income.

The proper role of government in credit markets is to create the capital market instruments necessary to encourage savings at appropriate levels - a much neglected aspect of policy in most countries, and to provide the institutional arrangements that permit loan funds to be extended to producers at the social cost of those funds. An important

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1/See Lopes, Mauro de Regende, "The Mobilization of Resources from Agriculture: A Policy Analysis for Brazil", Ph.D. dissertation, Purdue University, 1977.

2/See Lipton, Michael, "Migration from Rural Areas of Poor Countries: The Impact on Rural Productivity and Income Distribution"; and Schuh, G. Edward, "Out-Migration, Rural Productivity, and the Distribution of Income", in Migration and the Labor Market in Developing Countries, edited by Richard H. Sabot, Boulder, Colorado, Westview Press, 1982.

issue on this side of the market is that transaction costs are often large for loans extended to small producers. Consequently, bankers and other issuers of credit tend to neglect this sector. As an alternative, highly subsidized funds are often provided to this sector. A more desirable policy may be to find ways of offsetting the transaction costs directly rather than to provide the subsidized credit.

A proper role of government in the land market is to provide proper cadastres of the land and to help assure that titles are secure. In countries where inheritance laws have led to excessive fragmentation, there is also an important role to be played in consolidating land holdings. Care should be exercised in implementing such programs, however, to not interfere in fragmentation that serves the function of spreading risk - the holding of multiple parcels located in different geographic areas with different production potential.

The importance of maintaining an open land market is a seriously neglected goal of policy in many countries. In fact, government intervention is often directed to impeding the transfer of land ownership and promoting fragmentation. Such policies fail to recognize that an increase in farm size is an important means to increase the per capita income of rural people, and an inherent part of the development process. As per capita incomes rise in the nonfarm sector, farms need to become larger if incomes in the farm sector are to increase at the same pace. Within limits, inputs other than land can be added to labor to raise its productivity. At some point, however, economic forces will dictate that additional land needs to be added also. This leads to farm enlargement.[1/]

1/Peterson and Kislev have found that most of the increase in farm size in the U.S. can be explained by such a response to the increase in the price of labor in the nonfarm sector. See "Prices, Technology, and Farm Size", Journal of Policital Economy. vol. 90, no. 3, June 1982. pp. 578-595.

Distortions in labor and capital markets are an important source of the duality that emerges in labor markets in many less-developed countries, and in the open and hidden unemployment which emerges in these economies. These factors are not insignificant in the U.S. and other industrialized economies, however.

It is not uncommon in less-developed countries to find subsidized credit and subsidized imports of capital goods used as the primary means of promoting economic development, and minimum wages and high payroll taxes used as the means to deal with perceived equity problems, especially in urban labor markets. In the latter case, the payroll taxes are used to support social welfare programs, on the mistaken premise that it is the capitalists who pay these taxes. The truth of the matter is that the incidence of such taxes tends to fall on the worker, in the form of unemployment.

In any case, the consequence of highly subsidized credit and a combination of minimum wage laws and high payroll taxes.[1/] is to shift relative factor prices so as to induce a highly capital-intensive development trajectory. The distorted factor prices also induce the use of production technologies that are not appropriate for the local resource endowment. Although the tendency is to attribute anti-labor or conspirational motives to the capitalists that use such technology, it is really government policy that is to blame. An important byproduct of such policies is also a highly skewed or unequal distribution of income. Again,

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1/In the case of Brazil, for example, such distortions have been huge. A combination of usury laws and high rates of inflation have caused negative real rates of interest as high as 50-70-90 percent. When combined with a severely over-valued currency - an import subsidy for capital goods - the incentive to use a capital-intensive production process is quite great. Payroll taxes, on the other hand, have at times been as high as the supply price of labor, thus badly distorting the price of labor as well. See Whitaker, Morris, "Labor Absorption in Brazil: An Analysis of the Industrial Sector", unpublished Ph.D. Dissertation, Purdue University, Lafayette, IN, 1970.

the tendency is to blame the workings of a market economy as causing such unequal distributions of income, when in fact is it government policies.

The issue, of course, is not whether to subsidize industrialization or not. The issue is _how_ to subsidize it. Subsidized education and training programs, for example, can be an important subsidy to private industrialists and farmers. It also can be an important means of dealing with the equity problem, as we will see below.

Government interventions in land markets are as severe as they are in the other two factor markets. Limits are set to farm size, share tenancy is precluded by law, share proportions are determined by government decree, and limitations on land transfers are imposed. All such interferences with market forces impede the efficient use of resources. More often than not, they have consequences for the distribution of income that is diametrically counter to the intent of the policies.

Translating these policy prescriptions to the international arena involves more than a few complexities. Foreign capital is viewed with more than a little suspicion in most countries. Barriers to migration among countries are quite severe in most countries. And laws which prevent the ownership of land by foreigners is quite common.

There are a number of encouraging signs on the international scene, however. For example, a very efficient international market for capital has emerged over the last two decades. Although governments are reluctant to let foreign firms make direct investments in their economy, they have been more than willing to go into international capital markets for credit. This means of financing development programs has largely supplemented concessional foreign aid by other countries as a source of capital funds. This system has been put at risk by the failure of banks and other lending institutions to look after their own best interests. Government intervention is not the solution to this problem. More astute lending is.

International labor markets have also become more open, sometimes by forces majeur and sometimes as a rational response to market forces. The petroleum-rich Middle East countries with their sparse population are important examples of the latter. The Mexican border and the boat people of Southeast Asia are important examples of the former.

Properly specified welfare functions to assess the gains a country experiences from economic intercourse with the rest of the world include the factor markets.[1/] The exchange of capital and labor can be as important as a source of national welfare as exchange of goods and services.

Barriers to the international migration of labor and to the international owning of land are likely to continue into the near future. Perhaps the best that can be done is to keep the market for capital open and efficient, together with a freer flow of trade. The combination of these two factors can lead to a more efficient use of the world's resources. It can also lead to a more equitable distribution of income.

The changing age pyramid for many of the industrialized countries may put substantial pressure on governments to liberalize their labor markets. The same applies to the centrally-planned economies. We may well see more international migration of labor in a few years than we ever thought possible a few years ago.

1/Brandao, Antonio, "The Terms of Trade and the Welfare Gains from Trade: New Perspectives", unpublished Ph.D. thesis, Purdue University, 1978.

Redistributing Income

Redistributing income is a proper role for governments. In fact, some have argued for a division of labor in which markets are used to allocate resources while governments make whatever marginal changes in the distribution of income are desired by the body politic. Although this is a somewhat simplistic view, it does have at least two technical bases. First, there is no ethical justification for the distribution of income that results from the operation of a market economy. The distribution will depend importantly on the initial distribution of assets, including those of human capital, and that is in large part a chance phenomena.

Second, there is no technical basis for saying that one distribution of income is better than another. Our inability to make interpersonal comparion of utility mean that we really cannot say whether one distribution of income is better than another except in relation to a political goal determined by a political process. Hence, changes in the distribution of income need to be brought about by a political process - by intervention of government.

Questions can be raised about the means that governments use to bring about changes in the distribution of income. Some of these questions can be raised on the basis of casual empiricism - from observing how past techniques have performed in redistributing income. More recently, attempts have been made to work out more formal criteria for determining whether the means used to redistribute income have been efficient.[1/]

1/See Becker, Gary, "A Theory of Political Behavior", University of Chicago, CSES Working Paper, 006-1, September 1981.

An important point about policies designed to redistribute income is that often they have consequences that are counter to what is intended. Examples of such policies are legion. Minimum wage legislation is a common example; although designed to make workers as a class better off, it often creates unemployment and lower incomes for large numbers of workers. The growing evidence from land reforms and land redistribution schemes suggests that they often do not benefit the landless worker that they were designed to benefit.[1/] And price support programs have been found to benefit those who are already relatively well off in the agricultural sector, while not benefiting the disadvantaged who presumably were the objective of the price policy in the first place.[2/]

All too often governments intervene in market forces as a means of redistributing income. One problem in doing this is that it keeps markets from doing what they do best - allocate the resources in an efficient manner - while failing to obtain the desired income distribution goal. An important reason for this disparity between intent and result is that the incidence of such policies - the ultimate beneficiaries, if you will - tend to be quite different than superficial expectations suggest.

Transparency is a desirable goal of economic policy. The problem with many government interventions in markets is that they provide implicit subsidies and impose implicit taxes. In general, private firms and private individuals like to receive their subsidies in explicit form,

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1/For data on the Chilean case, see Valdez, Alberto, "The Transition to Socialism: Observations on the Chilean Agrarian Reform", in Employment in Developing Nations, ed., Edgar O. Edwards, New York, Columbia University Press, 1974, pp. 405-418.

2/See Gardner, Bruce, The Governing of Agriculture, The Regents Press of Kansas, Lawrence, 1981.

while governments like to impose their taxes in implicit form. Hence, the political process drives the system towards these kinds of market interventions and these kinds of attempts to redistribute income. The consequences, however, are a rather inefficient distribution of income - inefficient because they lead to wasteful uses of a nation's resources.

One way to avoid these difficulties is to make income transfers explicit - and outside the market place. This will become increasingly important as the world's economy becomes increasingly internationalized and we become increasingly concerned about the subsidies governments provide by means of domestic policies.

Another difficulty in dealing with income distribution problems is the general failure to recognize the amount of resources required for attaining a more equitable distribution of income. In general, income distributions tend to be skewed, with a relatively small number receiving large incomes and a relatively large number receiving lower incomes. One consequence of this situation is that one can take all the wealth and/or income away from the well to do and still have only a nominal impact on the income of the disadvantaged. When one takes account of the disincentive effects of such redistributive schemes, their desirability as appropriate schemes declines substantially.

An important dimension of this problem occurs in low income countries where the problem of poverty is one of mass poverty, not one of a small group of disadvantaged who are unable to compete in competitive markets. Moreover, the problems of mass poverty usually involve generalized low productivity. Reducing this poverty entails finding means to raise productivity, not redistributing income.

This raises another important issue. There is a popular view that a more equitable distribution of income can be obtained only at the expense of a loss in resource efficiency, and that a reduction in average per capita incomes is an appropriate price to pay for obtaining a more equitable distribution of income.

This perspective can be used to justify government intervention in market forces. However, internationally or uninternationally, such an approach is rather mischevious. The implied tradeoff between equity and efficiency is in general a false dichotomy. Policy instruments are available to improve the lot of the poor and they can do so without distorting resource use or without sacrificing growth in average per capita incomes.

The key to reducing poverty is to raise the productivity of the disadvantaged. In many low income countries, this typically will require the diffusion of new production technology[1/] on a generalized basis within society. It will also involve investments in the various forms of human capital - nutrition, health, formal schooling, training programs, etc. In general the social rates of return to such investments are quite high. Consequently, they can lead to a reduction in poverty without sacrificing the growth in per capita income. In fact, they may well increase aggregate growth rates while at the same time reducing poverty.

Finally, it should be noted that Marxist doctrine with its emphasis on the class struggle has caused the problem of poverty to be cast rather infelicitously in the context of a <u>relative</u> income distribution problem.

1/Professor Schultz has made the case for new production income as a source of income streams. See <u>Transforming Traditional Agriculture</u>, New York, University of Columbia Press, 1964.

The problem of absolute poverty therefore tends to be neglected, as does the progress that often occurs in improving the absolute income of the poor.

Brazil is an important example where there has been a distortion of the policy and political debate on the income distibution problem. During the period of rapid growth in per capita incomes associated with the so-called economic "miracle" of the late 1960's and early 1970's, there is some evidence that the distribution of income become more unequal.[1/] This change in the relative distribution of income became the focus of the internal political debate. Seldom was it recognized that the absolute income of the poor had improved very substantially during this period - in fact, as much as in any country in the world.[2/] Fields contrasted the Brazilian experience with the Indian experience since India has had a more equal distribution of income high on its policy agenda. What he found is that in the period in which the distribution of income in India was becoming more equal, the absolute income of the lower income classes actually declined. One can leave it to the poor to decide which of these two situations the poor would really prefer.

Professor Schultz and Ram Rati[3/] have called our attention to a rather neglected aspect of the income distribution problem - the enormous increase in life expectancy that has occurred in the less-developed

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1/I say "some evidence" because very little attention was given to the quality of the data on which the analyses were based.

2/Fields, Gary S., "Who Benefits from Economic Development: A Reexamination of Brazilian Browth in the 1960's", American Economic Review 67(4): pp. 570-582 (September 1977).

3/Ram, Rati, and Theodore W. Schultz, "Some Economic Implications of Increase in Life Span with Special Reference to India", countries in the post-World War II period. This increase in life expectancy has a number of important implications. First, since it tends to be concentrated among the poor, it is privia facie evidence that the income of these groups has tended to improve. Second, it is a neglected aspect of the relative income distribution and in a very real sense reflects a more equal distribution of income. Third, an increase in life expectancy is an important inducement to increased investment in human capital. Hence, it lays the groundwork for further increases in per capita income for these groups.

In terms of the theme of this paper, there obviously is a significant role for government in affecting the incomes of the population it represents and in affecting the relative distribution of that income. Desirable interventions focus on those measures designed to increase the interest in human capital, and in assuring that access to such investments are widely distributed. It is generally recognized that there is a disparity between the private and social rates of return to such investments. Moreover, capital markets often work less efficiently for the disadvantaged than they do for the advantaged. Hence, there is an important role for focusing publicly supported human capital programs on the disadvantaged.

Having said that, it should be recognized that human capital programs are not a panacea for the income distribution problem. In many countries, it is the upper income groups that capture the subsidies for human capital. When they do, it well can lead to a more unequal distribution of income. Similarly, we understand only poorly the income distribution consequences of economic development. We do have evidence that development induces a more human capital-intensive configuration for the economy.[1/] Whether the technology that results will value particular forms of human capital more highly, and whether that human capital is ultimately reproducible, is at this point an open question. Within the percent range of development experience, however, the evidence is that public investments in the wide range of human capital can be an important means of producing a more equal distribution of income, especially if access to such public investments is kept widely accessible in the economy.

What does this analysis imply for the international economy? The implications would appear to be quite important, especially in terms of the particular form that foreign assistance and other concessional transfers of capital among countries should take. Foreign assistance, or concessional transfers of capital more generally, might well be limited to or concentrated on investments in human capital. In many countries, the underinvestment in human capital is quite severe. Moreover, providing support for human capital programs need not imply foreigners intervening in the educational systems of other countries.

More attention has been given in recent years to increasing the international capacity for agricultural research, both bilaterally and multilaterally. These efforts should be expanded and resource transfers for physical capital reduced. The externalities from human capital are high. All countries, including the donor countries, can benefit from such investments. A reduction in the productivity differentials among countries is the key to reducing the income differentials. It may well

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1/ Schuh, G. Edward, "Economics and International Relations: A Conceptual Framework", American Journal of Agricultural Economics, 63(5): 767-778.

be that more equal investments in human capital are the only effective means for narrowing the gap among countries in a reasonable time.

Concluding Comments

The growing internationalization of the world's economy makes it imperative that we reform our international institutions so that we can conduct our business in a more efficient and more business-like fashion. It isn't sufficient for us to criticize the arguments of those who want to change the system and to reject out of hand their requests. We need to engage them in a dialogue and to work towards more serious negotiations.

The controversy over the proper role of markets and the proper role of government will continue into the future. However, we need to press for stronger and more effective international government while at the same time pressing for more open markets.