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To: Members of the Executive Board

From: The Acting Secretary

Subject: International Coordination of Economic Policies

Attached for consideration by the Executive Directors is a paper on international coordination of economic policies, which is scheduled for discussion by the Executive Board on Friday, September 9, 1988. Issues for discussion appear on pages 22 and 23.

Mr. Masson (ext. 7483) is available to answer technical or factual questions relating to this paper prior to the Board discussion.

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INTERNATIONAL MONETARY FUND

International Coordination of Economic Policies

Prepared by the Research Department

Approved by Jacob A. Frenkel

August 11, 1988

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# International Coordination of Economic Policies

Prepared by the Research Department

## I. Introduction

The communiqué issued after the meeting of the Fund's Interim Committee, held on April 14-15, 1988, stated:

Committee members stressed the importance of policy coordination in strengthening economic performance. In this context, they welcomed the progress that has been made, within the framework of the Fund's responsibilities for surveillance over members' economic policies, in developing the use of economic indicators in medium-term context. The Committee encourages the Executive Board to continue developing its use of indicators, and to keep the working of the international monetary system under continuous review.

This paper is a response to that request; it discusses the broad issues that are involved in economic policy coordination, in particular as they relate to the Fund's role in surveillance over policies of industrial countries.

Considerable attention has recently been directed to potential benefits of increased economic policy coordination among the larger industrial countries as a way of sustaining economic growth and price stability worldwide and of improving the functioning of the international monetary system. Coordination has been variously defined: as a significant modification of national policies in recognition of international economic interdependence 1/; as decisionmaking that maximizes joint welfare and thus enables international interdependencies to be positively exploited 2/; or more broadly, as agreements between countries to adjust their policies in the light of shared objectives or to implement policies jointly. 3/ A more general term is cooperation, which includes policy coordination, but also extends to exchange of information and consultation among countries; sometimes coordination and cooperation are treated as synonymous. The Fund has a key role in this process since one of its purposes is "to promote international monetary cooperation through a permanent institution which provides the machinery for consultation and collaboration on international monetary problems" (Articles of Agreement, I(i)).

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1/ Wallich (1984, p. 85).

2/ Artis and Ostry (1986, p. 14).

3/ Horne and Masson (1988, p. 261).

Recent attempts to lay the groundwork for enhanced coordination of economic policies and economic cooperation include the 1985 reports of the Deputies of the Group of Ten and of the Group of Twenty-Four, the September 1985 meeting of the Group of Five (the "Plaza Agreement"), the Louvre Accord of February 1987, recent economic meetings of Governors and Ministers of the Group of Seven, as well as economic summit meetings, and recent meetings of the Interim Committee.

Since there are already a number of comprehensive surveys of the literature on international economic cooperation, the paper will not attempt to treat all aspects of the question, and, in particular, will not discuss the more technical literature based on game theory. <sup>1/</sup> Instead, the discussion will focus on the aspects that are of the most concern to the Fund, with emphasis on economic indicators for multilateral surveillance and on medium-term scenarios prepared in the context of the World Economic Outlook.

The paper is organized as follows. Section II discusses general considerations relating to economic policy coordination, in particular, the features of the international economy that make coordination desirable, potential obstacles to coordination, and how frequently coordination discussions should take place.

Section III turns to the use of indicators in assisting in the broader process of economic cooperation and in making policy coordination possible. As background, issues of rules versus discretion, single-variable versus multiple-variable approaches, and hegemonic versus more symmetric systems are discussed. Then recent initiatives in the use of indicators in international economic policymaking are reviewed.

Section IV uses examples from recent medium-term scenarios prepared for the World Economic Outlook to discuss some of the effects of international economic cooperation. Examples of good and bad policies are highlighted. Hinting at what follows, the analysis suggests that to succeed, coordination should not be too narrowly focused on particular targets, that it should not rely too heavily on a single policy instrument, and that it should also take account of global consequences and not just effects on the group of coordinating countries.

Finally, Section V presents some issues for discussion.

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<sup>1/</sup> See the surveys by Artis and Ostry (1986), Cooper (1985), Fischer (1987), Frenkel, Goldstein and Masson (1988), Hamada (1979), Horne and Masson (1988), Kenen (1987), Polak (1981) and Wallich (1984).

## II. Some General Considerations Relating to International Economic Policy Coordination

### 1. The need for coordination

Interdependence among countries, in particular the existence of international "spillovers" resulting from domestic and foreign policies, makes international policy coordination desirable. 1/ Trends in the world economy have tended to increase interdependence in recent years, as the volume of trade has continued to grow considerably faster than output, and as financial markets have become increasingly liberalized and integrated. Consequently, policy actions taken in a relatively large country are unlikely to be "bottled up" there, and will have consequences for its neighbors; in the process, too, the domestic effects may be diluted, tending to make uncoordinated policies less effective. For instance, fiscal expansion taken by one country alone would increase demand for foreign goods as well as domestic goods; unfavorable current account consequences for the country undertaking fiscal expansion would be reduced if all countries expanded.

The need for policy coordination also arises because policy goals may not be independent across countries. For instance, some countries may prefer to run current account surpluses, and in the process acquire foreign claims, rather than run current account deficits; however, since current account balances must sum to zero globally (leaving aside errors of measurement), surpluses of some countries must be balanced by deficits of others. Similarly, if countries have (intermediate) targets for exchange rates, then those targets may not be internationally consistent, resulting in an inflationary or deflationary bias. Coordination of policy settings and policy goals may reduce the cost of suboptimal outcomes resulting from uncoordinated policies.

Coordination--in particular, of structural policies--may also be desirable for efficiency reasons. For instance, the uniform tax treatment of income to capital may help ensure that resources flow to their most productive uses. This is likely to be an increasingly important consideration as international capital markets become increasingly integrated.

It is sometimes argued that just as decentralized decisionmaking may be optimal in a world of perfect competition, independent policy setting by governments may also be sufficient to achieve desirable outcomes. 2/ However, such a position ignores the fact that governments are not atomistic agents, but have the ability to influence (at least for a while) important prices--such as their countries' real exchange rates. In doing

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1/ Cooper (1985). See Helliwell and Padmore (1985) for a survey of empirical evidence of interdependence.

2/ Vaubel (1985).

so, they may bring about undesirable effects on other countries--effects which are not internalized in the decentralized policy-setting framework. An example of this might be uncoordinated policy responses to a common inflationary shock: countries acting independently might try to neutralize domestic effects not only by contracting domestic demand but also by appreciating their currencies. However, the appreciation would export inflation, and hence have negative spillovers abroad. Moreover, appreciation could not be achieved by all countries, and might just lead to inappropriately tight monetary policies and a contractionary bias to the world economy. Policy coordination would discourage such beggar-thy-neighbor strategies.

In addition, there are some features of a well-functioning international monetary system that have the character of public goods--stability in international financial markets and an open international trading system, among others. <sup>1/</sup> Public goods are another departure from the competitive model, one that in this case provides a prima facie case for international policy coordination, as the market "price" may not reflect true social value. Governments acting alone may not properly take into account the global cost of their contribution to "public bads" such as financial instability or protectionism. International agreements, specifying either desirable principles of behavior or specific policies to be avoided, would be helpful in these circumstances.

Finally, international policy coordination may assist in the domestic policymaking process by clarifying the nature of the tradeoffs and by mobilizing peer pressure to help provide governments with the political will to make difficult choices in the face of opposition from domestic pressure groups. It seems likely, for instance, that coordination among the Group of Seven has helped neutralize protectionist pressures to some extent, and coordination within the EMS has reinforced the political consensus in the high inflation countries to achieve the needed disinflation. In these examples, coordination aided governments to implement policies that were in their own interest acting independently, rather than modifying objectives to reflect consequences for other countries. This may be one of the most important benefits of economic cooperation and policy coordination.

## 2. Obstacles to successful coordination

Despite the general presumption that international economic policy coordination is beneficial, there are a number of practical considerations that may make coordination difficult to achieve, or that can even negate its potentially favorable impact. These include disagreements about economic objectives, lack of consensus about the nature of current problems and the effect of policies, and costs of negotiating and monitoring agreements. It is the function of economic cooperation in the wider sense--for instance, through the measurement and

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<sup>1/</sup> Corden (1986).

interpretation of economic indicators and through multilateral surveillance--to reduce progressively these impediments to coordination.

Differences in objectives can, in some circumstances, make it difficult to reach agreement about what appropriate policies should be. <sup>1/</sup> For instance, if two countries both want to improve their bilateral trade balance, each country would want the other to pursue a more expansionary fiscal policy. Maintenance of the inconsistent trade balance targets would necessarily involve conflict between the countries. A precondition for coordination would be agreement to modify the targets themselves. This might be part of a broader package that also reflected other objectives.

Coordination can also be handicapped if some policy instruments are treated as objectives in themselves. In some countries, the constraints on policy instruments may primarily relate to commitments about taxes and certain categories of government spending, while in others they may relate to structural policies. In short, such constraints can reduce the room for maneuver in reaching a policy bargain.

Disagreement about the nature of the policy problem and about effects of policies also may make coordination difficult. Suppose that there is consensus about the need to reduce unemployment, but disagreement about its cause. If the problem is viewed as a structural problem tied to labor market rigidities, then fiscal stimulus may not be appropriate (especially if budget balance is also a target); in fact, it may have perverse effects. If instead the problem is due to inadequate demand, then increases in government expenditures or reduction in taxes may be viewed more favorably. However, if it is felt that increases in government deficits have unfavorable effects on confidence, then such a policy prescription may not be accepted. In short, agreement on coordinated policy actions may be difficult to reach until fundamental agreement concerning the functioning of the economy is reached; such a consensus is likely to be furthered by the collection and analysis of data in the context of international cooperation.

Even if there is agreement about the objectives and effects of policies, coordination may be difficult because negotiation is needed to decide how the gains to coordination will be shared. Each party to an agreement would attempt to maximize its own benefits. Furthermore, a consensus may have to be reached on mechanisms for monitoring compliance with agreements, and for gauging whether further policy actions are necessary.

The possibility that international economic policy coordination might actually be counterproductive because of other distortions has also been raised. <sup>2/</sup> In particular, if central banks simultaneously attempt to

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<sup>1/</sup> It is also the case that disagreements within a country may not be resolved by the political process, causing a paralysis of decision-making.

<sup>2/</sup> See Rogoff (1985) and Vaubel (1985).

lower the unemployment rate below its equilibrium level, policy coordination may lead to higher global inflation, but no better outcome for unemployment. In this case, however, the problem does not derive from policy coordination, but rather from inappropriate domestic objectives; therefore, it is mainly relevant for the question of reform of the domestic policymaking process.

### 3. The form of policy coordination

There are a number of salient issues that relate to the form that policy coordination should take. They include whether to coordinate over a wide or narrow range of areas; how specific policy coordination agreements should be concerning the detail of policy settings; and whether to engage in frequent or infrequent discussions.

The advantage of the wide-ranging, multi-issue approach to policy coordination is that it may increase the probability of a policy bargain that benefits all parties. 1/ Concessions to a particular country in some area may in effect induce it to coordinate even if it sees less of a gain to coordination in some other area; i.e. a wider menu of policy issues may induce countries to share in the global gains from coordination. 2/ At the same time, it is also true that the complexity, and hence the costs of negotiation, are likely to increase, the greater the number of issues involved. Furthermore, an attempt to reach too broad an agreement is more likely in some area to run into one of the problems raised above: disagreement about objectives or about the effects of policies. Thus there is a tradeoff involved in the degree of comprehensiveness of policy coordination.

In any particular area, for example, in monetary policy or in fiscal policy, there is the choice of focusing coordination on very specific instrument settings or framing it instead on the broad stance of policy. The latter approach allows each country to retain its autonomy to the greatest extent possible; it also avoids the need for each country to acquire expertise concerning detailed institutional features of other economies. On the other hand, it may be difficult to find appropriate indicators that adequately measure the aggregate stance of policy. For example, the macroeconomic effects of a given central government fiscal deficit can differ depending, inter alia, on whether taxes or expenditures are altered, whether expenditures fall on tradables or on nontradables, and whether taxes fall predominantly on saving or on investment. This issue is considered further in Section III below.

Coordination of structural policies, particularly those intended to reform the tax system or to bring about more flexibility in labor markets,

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1/ It is also true that at present, relevant macroeconomic policy issues extend beyond demand management to structural problems facing the global economy, favoring a broad approach.

2/ Putnam and Hemming (1986).

may require agreement on specifics--for two reasons. First, such policies are microeconomic in focus, and hence must allow for the detailed institutional setting in each country. Second, the policy instruments that are appropriate differ across countries, as do the distortions that those policies are intended to correct.

Finally, there is the question of the desirable frequency of policy coordination discussions. Here, one can contrast episodic coordination--for instance, the 1971 Smithsonian conference on exchange rates--with institutionalized economic cooperation and coordination, such as that which occurs on a regular basis at the Executive Board of the International Monetary Fund. It would seem that to institutionalize coordination would be more effective, for three reasons. First, the existence of repeated bargaining increases the chance of agreements, since later agreements can be tailored to compensate for unfavorable outcomes. Second, temptation to renege on agreements is reduced, since to do so would endanger the ability to reach agreement in the future; i.e., ongoing coordination reinforces credibility. Third, continuing policy discussions facilitate agreement by avoiding a crisis atmosphere and building up a common understanding of the nature of policy problems.

### III. The Use of Indicators

The discussion so far has been quite general. We now turn to the implementation of policy coordination, and, in particular, to the role of indicators operating in concert with Fund surveillance. The April 1986 Interim Committee Communique asked the Executive Board to explore "...the formulation of a set of objective indicators related to policy actions and economic performance, having regard to a medium-term framework." Indicators were to serve as a tool to "strengthen the basis for assessing the international repercussions of the policies and objectives of the major industrial countries, and also to help promote the further development of recent initiatives to enhance policy coordination..."

In the Tokyo Economic Declaration issued in May 1986, the seven summit countries specifically referred to the following indicators: "GNP growth rates, inflation rates, interest rates, unemployment rates, fiscal deficit ratios, current account and trade balances, monetary growth rates, reserves, and exchange rates." A paper discussed at the Executive Board in July 1986 ("Indicators Relating to Policy Actions and Economic Performance," EBS/86/127) examined the purposes that indicators might be expected to serve and presented an analytical framework for their use. In the context of multilateral surveillance, it was noted that indicators can serve to assess "the intercountry consistency of developments and prospects," and more ambitiously, as a "triggering or enforcing device." The Executive Board has made clear its preference for the use of indicators to assess the international consistency and desirability of policies rather than as a trigger for policy actions. Indicators are currently used in the periodic consultations with member countries and

also in the multilateral appraisal of policies contained in the World Economic Outlook. 1/

In what follows, the use of indicators is placed in a broader context, then recent initiatives concerning indicators are reviewed. To begin, it may be useful to relate indicators in an international setting to the long-standing domestic policy debate concerning rules versus discretion. This debate has some relevance for possible extensions in the use of indicators and for proposals that seek more institutionalized international policy coordination. In evaluating such proposals, it is also relevant to consider the relative strengths of single versus multi-variable approaches to policy coordination, and of hegemonic versus symmetric systems. 2/ The discussion will then turn to recent initiatives in four areas: (1) aggregate indicators, (2) commodity prices, (3) structural indicators, and (4) monitoring.

#### 1. Rules versus discretion

Many of the issues that emerged during the long and continuing debate on the relative merits of rules versus discretion in domestic economic policy have resurfaced in the dialogue on international economic policy coordination. The present system of managed floating allows considerable discretion in exchange rate policy, in contrast to the gold standard, the adjustable peg system, and more formal target zone proposals--all of which embody rules for triggering policy action on the basis of selected indicators. As such, they are all less discretionary than the present exchange rate system.

Those who support a more rules-based approach to international economic policy rest their case on essentially four arguments. First, it is argued that the application of simple policy rules, such as the maintenance of a fixed exchange rate, decreases the need for frequent policy coordination, thereby reducing negotiating costs and burden-sharing conflicts that are intrinsic to more discretionary systems. 3/ Second, rules are regarded as the only viable mechanism for imposing discipline on economic policymakers who might otherwise manipulate the instruments of policy for their own objectives. Third, rules are regarded as enhancing the predictability of policy actions and thereby improving the private sector's ability to make informed resource allocation decisions. Fourth, rules are seen as a way of preventing destabilizing fine-tuning and thus

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1/ The issues involved have been discussed in several staff papers: "Enhancing the Use of Indicators as a Tool for Surveillance" (EBS/86/282), "The Use of Indicators in Surveillance--Analytical Issues" (EBS/87/135) and "The Use of Indicators in Surveillance--Review of 1977 Decision on Surveillance over Exchange Rate Policies" (EBS/87/136).

2/ See Frenkel, Goldstein and Masson (1988) for a further treatment of these issues.

3/ See Polak (1981) and Kenen (1987).

providing protection against lack of knowledge about how the economy operates.

The main counter-arguments in favor of a discretionary approach are the following. First, rule-based adjustment systems often turn out to be less automatic in practice than in theory. For example, the automaticity of the specie-flow mechanism under the historical gold standard was often undermined by the proclivity of authorities to offset or sterilize the effect of gold flows. 1/ Second, rules will impart discipline to the conduct of macroeconomic policy only to the extent that the penalties for breaking the rules are significant enough to ensure that the rules are followed. It could be argued that the policy regime adjusts to the amount of discipline that countries want to have rather than the reverse. 2/ Third, it is by no means clear that rules are necessary to obtain the benefits of greater predictability of policy. For example, the practice of pre-announcing bands around money-supply targets--sometimes accompanied by announcements of public-sector borrowing requirements--provides the markets with information on the authorities' policy intentions, but stops well short of a rigid rule. Finally, while rules diminish the risk associated with fine tuning, they increase the risk stemming from lack of adaptability to changes in the operating environment. In light of all this, there may not be any attractive alternative to conducting economic policy coordination in a judgmental way.

## 2. Single versus multi-variable approaches to coordination

From the viewpoint of maximizing the sources of information, it is clearly better to have more, rather than fewer, indicators. However, if indicators are also to be used as policy targets, it may be desirable to narrow the set of variables, for reasons that are discussed below. The polar cases of regimes with fixed exchange rates or strict monetary targets are examples of single-variable systems. A prominent example of a multi-variable system is the ongoing effort by the Group of Seven countries to use a set of indicators to coordinate policies in a systematic way.

There are two main considerations that are typically advanced to support the single-variable approach to policy coordination. One is that it preserves for each country freedom of action over those policies not used to reach the single target variable. The second, and probably more important, defense of such an approach is that it sends a clear signal to markets about the course of future policy. If, for example, the monetary authorities commit themselves to maintain a fixed exchange rate within a given band, then movements of the exchange rate provide an unambiguous guide for monetary policy. In contrast, a multi-variable approach increases the authorities' scope for discretion since they can appeal to

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1/ Cooper (1982) and U.S. Congress (1982).

2/ For an evaluation of such arguments, see Goldstein (1980), (1984), Frenkel (1982), and Frenkel and Goldstein (1986).

the conflicting messages coming from different indicators. In cases where the authorities' past record of policy performance has been weak and where a single objective of policy is predominant (such as disinflation), a single-variable framework for coordination can carry significant advantages in the battle to restore credibility to policy.

But relying on a single policy variable--such as the exchange rate--can also carry substantial risks. Perhaps the most serious one is that the single variable can send weak--or even false--signals about the need for changes in policies that are not being coordinated. The appreciation of the U.S. dollar in the first half of 1980s could be explained by monetary contraction, fiscal expansion, or a favorable shift in the productivity of the U.S. economy. The exchange rate indicator alone cannot disentangle the causes, nor suggest which policy response, if any, might be appropriate. Assigning monetary policy to the task of keeping the exchange rate within target zones would be the wrong thing to do if the source of the appreciation were fiscal expansion. In contrast, a multi-variable approach to coordination--assuming that the list included monetary and fiscal policy variables--would not be susceptible to this weak or false-signal problem. This is because such an approach goes directly to the basic stance of fiscal and monetary policies, rather than passing through the medium of the exchange rate.

However, the potential for inconsistency or incompatibility can be higher when there are many policy targets. For example, a publicly announced set of targets, like exchange rates--if they are to be credible to markets--will need to be consistent with the announced course of monetary and fiscal policies. In addition, the credibility of multiple policy targets requires recognition of the constraints on policy instruments, including the limited flexibility of fiscal policy in almost all industrial countries, 1/ and the limited ability of sterilized exchange market intervention to affect the level of the exchange rate over the medium-term. 2/ A relevant concern is that limitations on other policy instruments may lead to monetary policy being asked to carry too heavy a burden--with primary responsibility for maintaining both internal and external balance.

### 3. Hegemonic versus symmetric systems

Yet another key issue associated with coordination--particularly when it involves joint decisionmaking--is whether one country should have a predominant voice on the course of policies, or alternatively, whether that influence should be shared more equally. This issue arises in all systems of coordination that involve the exchange rate because of the so-called N-1 problem: i.e. there are only N-1 exchange rates among N

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1/ See Tanzi (1988). This limited flexibility results from both the nature of the budgetary process and the accumulation of government debt, which limits the scope for fiscal stimulus.

2/ See Mussa (1981) and the Jurgensen Report (1983).

currencies. The historical gold standard, the Bretton Woods system, and the EMS are all often regarded as hegemonic systems, while the ongoing Group of Seven coordination process would qualify as a more symmetric exercise. 1/

While there have clearly been periods when large countries have exerted a stabilizing influence on the system, it is hard to accept that hegemony is a necessary characteristic of a well-functioning system of international economic policy coordination. There are several reasons. First, attempts to impose a hegemonic approach to coordination when economic realities do not support it can be counterproductive. In the present global context, there appears to be no obvious candidate that combines an unblemished record for economic stability, a dominant position in international trade and finance, and a willingness to accept all the requisite responsibilities. Second, the amount of coordination needed for smooth functioning of hegemonic systems, including the gold standard, has in the past been substantial. 2/ Third, what seems to be the result of hegemony can also reflect common objectives. 3/

#### 4. Recent initiatives in the use of indicators

There are a number of important issues that have arisen in the implementation of economic indicators for the purpose of facilitating international economic policy coordination. They are treated below in four subsections, on aggregate indicators, commodity prices, structural indicators, and finally on the use of indicators for monitoring international developments.

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1/ This characterization is not universally shared. Williamson and Miller (1987), for example, regard the gold standard and Bretton Woods as more symmetric systems. However, the United Kingdom had a dominant role in the former, and the United States in the latter.

2/ Eichengreen (1987).

3/ The EMS provides a good illustration of this result. In the early 1980s, disinflation was the top priority in virtually all EMS countries. Since the Federal Republic of Germany had the best reputation for price stability, it could be said that there was a commonality of interests in following German monetary policy and in trying to converge to the German inflation rate. Now, however some observers argue that given both the progress already made on the inflation front and the high unemployment rates prevailing in some EMS (and potential EMS) member countries, it is time to give greater weight to objectives other than inflation. If such a decision were taken, it would likely result in a more symmetric EMS--and this quite apart from shifts among members in relative economic size or reputation.

a. Aggregate indicators

Indicators such as output, inflation, and exchange rates, among others, have long been used at the level of an individual country as a guide to policy. International economic policy coordination aims at properly taking into account cross-border spillover effects when framing policies, and at improving the functioning of the international monetary and trading systems. It is natural then to extend the use of indicators to variables measuring policy and performance for groups of countries, in order to understand the system-wide effects of policies.

As proposed at the Venice Economic Summit in 1987 and incorporated in subsequent coordination meetings, aggregate indicators for the Group of Seven as a whole have been added to the list of individual-country indicators. Aggregate indicators for the group may include such variables as the growth rate of real GNP and of domestic demand, the current account position, and the real exchange rate.

There are two fundamental reasons for interest in aggregate indicators: to gauge whether the overall stance of policies in major countries is biased towards expansion or contraction, and to capture the effects of policies on other countries--in particular, on developing countries. On the first point, focus on individual country indicators--for instance, on real exchange rates--may not give a reading as to whether aggregate policy is too inflationary or deflationary. 1/ Under the Bretton Woods system, the responsibility for global price stability essentially resided with the key-currency country, but such an anchor for inflation is not present in the current system. On the second point, alternative policy packages among the larger industrial countries may have quite different implications for developing countries, depending on how they affect such variables as world interest rates, world economic activity, and the volume of global trade. 2/ Aggregate indicators provide a short-hand mechanism for inferring the magnitude of these crucial linkages between the industrial and developing countries.

b. Commodity prices

An example of an aggregate indicator is a basket that includes prices of primary commodities that are traded on world markets and widely consumed. In the light of concern that coordinated policies might lead either to an inappropriately high global rate of inflation or to excessive global contraction, a commodity price basket indicator was proposed by U.S. Treasury Secretary Baker and U.K. Chancellor Lawson at the 1987 meetings of the International Monetary Fund and the World Bank. It is

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1/ It is also true that a single aggregate indicator may not always give the correct reading. See also the discussion of the commodity price indicator below.

2/ Some estimates of effects on developing countries are cited below, in Section IV.

intended to serve as a potential early warning signal of emerging inflationary or deflationary pressures.

The importance of alternative weighting schemes and the ability of alternative commodity price baskets to anticipate inflationary trends were examined in a paper discussed at the Executive Board in January 1988. <sup>1/</sup> The results suggest that a commodity price indicator does have some value as an early warning signal of shifts in inflation in consumer prices. Moreover, such a conclusion does not depend on the precise weighting scheme used. However, it is important to account for the sources of changes in commodity prices, and to understand the factors affecting individual commodities.

Several important issues arise in the construction of a commodity basket:

- 1) The treatment of oil--whether it should be treated separately because of its special importance,
- 2) The relative weights to be applied to the various commodities in the basket, and
- 3) the currency denomination of the index.

For use in G-7 policy coordination, the Toronto Economic Summit of June 1988 endorsed the use of two commodity price indicators denominated in SDRs, one including and the other excluding oil prices, with the weights in each index based primarily on consumption in the G-7 countries.

c. Structural indicators

Growing interdependence may make it desirable to coordinate structural policies as well as macroeconomic policies; in any case, the effects of structural policies should be taken into account when coordinating macroeconomic policies. <sup>1/</sup> In this connection, the communiqué issued at the conclusion of the Venice Economic Summit of June 1987 pointed to the need for structural policies to promote competition, reduce agricultural imbalances, facilitate job-creating investment, improve the functioning of labor markets, and remove trade and capital market imperfections. Similarly, the Interim Committee communiqué issued after the meeting held on April 14-15, 1988, stated inter alia, that:

In Europe and Japan, the need for structural policies--including a marked reduction of subsidies and the lessening of rigidities in internal markets--was emphasized as a complement to sound macroeconomic policies.

The need for improved structural policies creates a corresponding need for indicators of structural policies and of their effects on intermediate and performance variables. Unfortunately, indicators in this

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<sup>1/</sup> Tanzi and Bovenberg (1988).

area are hard to devise, even for a single country; when international comparability is required, problems are compounded. Simple structural indicators for which data are readily available can be defined, but unless interpreted with great care, they are likely to be misleading. More complex indicators are possible, but they are likely to be costly to calculate and also subject to analytical reservations. 1/

In these circumstances, the preferable option may be to carry out detailed qualitative studies of the nature of rigidities and of the structural policies that can serve to remove them. For instance, over-regulation is often considered to be a cause of inadequate flexibility in various sectors. It would seem more practical to analyze the need for, and effects of, deregulation through detailed studies rather than through specific and quantified indicators. 2/ It may also be the case that for certain structural policies, spillovers are not large enough to make a coordinated approach the only defensible one. 3/ Removal of rigidities in labor markets and other policies that encourage competition are likely to be desirable for countries individually, whatever other countries do. Another example is agricultural protection and subsidies; when the welfare of both domestic consumers and producers is considered, it will generally be in each country's interest to dismantle them. Nevertheless, coordination may be helpful in reducing the costs of making needed structural reforms, and thereby mobilize the political will necessary to overcome interest groups in each country. In particular, it may mitigate distributional consequences--for instance, those that might result from liberalization of agricultural policies.

d. Monitoring

In order for indicators to be of most assistance in coordinating policies, there should to be an analytic framework for interpreting their movements. Even if automatic triggering of policy action is not appropriate, it is nevertheless important to quantify ranges of values of indicators that are sustainable or desirable. Of course, indicators of performance may depart from such ranges for a number of reasons: because policy commitments have not been fulfilled, because of unforeseen exogenous shocks, or because what was thought to be sustainable could not in fact be achieved. Indicators of policy would help identify the first case, while other performance indicators relating to intermediate variables or targets would help sort out other influences.

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1/ For a more complete discussion see the background paper "Indicators of Structural Policies and Performance," Annex III of SM/88/181 (to be issued shortly).

2/ Crockett and Goldstein (1987), p. 41.

3/ A clear exception here is taxes on the income to capital, and structural policies that affect the degree of capital mobility. Unilateral policy changes in this area may set in motion large capital movements with substantial spillover effects.

Because of the need for judgmental analysis, movements in indicators should not trigger automatic policy responses. Nevertheless, it is important to be able to evaluate whether deviations of indicators from desired paths are sizable enough to be a cause for concern, and hence whether special consultations are justified. 1/ This suggests that zones of desirable and sustainable outcomes may be useful in monitoring, if a consensus can be reached concerning their appropriate levels. This is the thrust of U.S. Treasury Secretary Baker's suggestion for "monitoring zones": 2/

We should refine the means of assessing whether an economy's performance is significantly deviating from an appropriate path, suggesting the need for consultation and possible actions. This might involve consideration of "monitoring zones" for key indicators such as growth, trade balances and so forth.

The experience with target ranges for monetary aggregates may have some useful lessons for the implementation of monitoring zones. In particular, zones should be wide enough to allow for random fluctuations of a transitory nature, but should signal major shifts in policies or in private sector behavior. Monetary aggregates targeting also suggests that a judgment must frequently be made as to whether econometric relationships that were valid in the past have shifted. In the case of monetary aggregates, for instance, this occurred in many countries in the early 1980s as a result of financial innovations or deregulation.

#### IV. Medium-Term Scenarios

Some empirical studies designed to gauge the effects of international economic policy coordination have yielded the controversial finding that the gains from coordination are likely to be small for the largest countries. 3/

These results give too negative an assessment of international economic policy coordination, for the following reasons, among others. 4/

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1/ As is done with Information Notices with respect to exchange rate movements.

2/ Remarks to the Council on Foreign Relations, Paris, France, May 20, 1988.

3/ See, for example, Oudiz and Sachs (1984). Another controversial finding is that coordination can actually worsen the situation if countries coordinate using the "wrong" model of the world economy. See, for example, Frankel (1987). As shown in Ghosh and Masson (1988), however, so long as authorities recognize model uncertainty and take it into account, the resulting policy choices will be more cautious, with positive implications for the effects of coordination.

4/ A more complete discussion is given in Frenkel, Goldstein and Masson (1988).

First, it is not clear that the assumptions employed in the model simulations--optimizing relative to an objective function that contains only a few variables--have much relation to actual policy concerns. Models typically do not do justice to the complexity of the political decision making process. As an example, policy coordination may avoid outcomes--such as protectionism--that are suboptimal even from the point of view of a country acting independently but for which there are powerful pressures from special interest groups. Yet these negative effects that might take place in the absence of coordination do not enter the typical calculation. Second, a proper assessment of gains to coordination may require considering a wide range of coordinated policies, including for instance, trade and tax policies, as well as exchange of information. Again, estimates of gains to coordination that are often found in the literature do not take this into account. Finally, gains to coordination are likely to be larger when "reputational" policies that allow governments to precommit themselves credibly to future actions are considered 1/; empirical evaluations of coordination have typically assumed that they could not.

In this paper, the effects of international economic cooperation will be illustrated with reference to alternative medium-term scenarios drawn from a global macroeconomic model, namely MULTIMOD. Such scenarios have been described in recent World Economic Outlook papers. Because they present hypothetical future outcomes, rather than a comparison with some past period, these scenarios do not permit quantification of actual gains from coordination. Nevertheless, they provide in the staff's view a useful analytical framework for inferring how the implications of coordinated policies will deviate from uncoordinated ones, as well as how alternative modes of coordination can make a difference.

Two technical features of MULTIMOD make it a useful vehicle for considering policy coordination issues. One is that expectations in the model are forward-looking and reflect the present and future stance of policy. This not only provides greater realism in the determination of asset prices and inflation, but also gives policy an additional and potentially powerful channel of transmission vis-a-vis more backward-looking expectations schemes. Second, although simulations concentrate on the policies of larger industrial countries, MULTIMOD contains a fully specified developing-country block, thereby facilitating the analysis of interactions between industrial and developing countries. 2/

The following subsections illustrate, first, the dangers from not coordinating policy, then the effects of both appropriate and inappropriate coordinated policies among industrial countries, and finally, how policy coordination among industrial countries might affect developing countries.

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1/ Currie, Levine and Vidalis (1987).

2/ MULTIMOD is fully documented elsewhere (Masson and others (1988)) and hence will not be described here in any detail.

Table 1. Selected Indicators for Finance-Constrained  
Medium-Term Scenarios

(Average percentage deviations from  
respective baseline scenarios, 1988-92)

	(1)	(2)
	SM/87/221, Table 7	SM/88/52, Table 1
<u>United States</u>		
Real GNP	-1.3	-1.8
Real domestic demand	-3.0	-2.5
GNP deflator	0.4	-3.0
Gen. gov't. financ. balance <u>1/</u>	-0.2	-0.2
Current account balance <u>1/</u>	1.4	0.6
<u>Japan</u>		
Real GNP	-1.6	-1.1
Real domestic demand	-0.2	-0.9
GNP deflator	-4.3	-2.3
Exchange rate (\$/yen)	11.9	2.2
Gen. gov't. financ. balance <u>1/</u>	-1.5	-0.3
Current account balance <u>1/</u>	0.1	-0.2
<u>Germany, Fed. Rep. of</u>		
Real GNP	-1.1	-0.9
Real domestic demand	-0.7	-0.7
GNP deflator	-3.6	-1.8
Exchange rate (\$/DM)	11.9	3.0
Gen. gov't financ. balance <u>1/</u>	0.2	-0.2
Current account balance <u>1/</u>	0.4	-0.1
<u>Industrial Countries</u>		
Real GNP	..	-1.3
Current account balance <u>1/</u>	..	0.1
<u>Developing Countries <u>2/</u></u>		
Real GDP	..	-0.5
Interest payments as a percent of export values	..	0.4

1/ As percent of GNP in baseline scenarios.

2/ Exclusive of high income oil exporters.

Table 2. Selected Indicators for Policy Adjustment Scenarios

(average percentage deviations from respective  
finance-constrained scenarios, 1988-92)

	SM/87/221		SM/88/52	
	(1) Scenario 1	(2) Scenario 2	(3) Combined Industrial Country Policy Change, Scenario 3	(4) Alternative Fiscal Mix, Scenario 4
<u>United States</u>				
Real GNP	0.9	-0.4	1.3	0.8
Real domestic demand	2.0	--	1.4	1.0
GNP deflator	-0.3	-1.1	3.2	0.4
Gen. gov't financ. balance <u>1/</u>	1.6	0.5	1.1	1.1
Current account balance <u>1/</u>	-0.7	--	-0.2	-0.2
<u>Japan</u>				
Real GNP	1.5	0.4	1.8	0.6
Real domestic demand	0.6	0.2	2.6	0.6
GNP deflator	2.9	1.6	3.2	0.7
Exchange rate (\$/yen)	-6.6	-5.8	-1.8	-0.6
Gen. gov't financ. balance <u>1/</u>	1.0	0.3	0.5	0.1
Current account balance <u>1/</u>	-0.3	-0.6	-0.5	0.1
<u>Germany, Fed. Rep. of</u>				
Real GNP	1.2	0.3	1.6	0.4
Real domestic demand	1.3	0.3	1.6	0.4
GNP deflator	2.2	1.5	1.9	0.3
Exchange rate (\$/DM)	-6.6	-5.8	-0.4	-1.1
Gen. gov't financ. balance <u>1/</u>	-1.0	0.1	0.1	0.1
Current account balance <u>1/</u>	-0.6	-0.7	0.2	0.2
<u>Industrial Countries</u>				
Real GNP	..	..	1.5	0.6
Current account balance <u>1/</u>	..	..	-0.1	-0.1
<u>Developing Countries 2/</u>				
Real GDP	..	..	0.7	0.1
Interest payments as a percent of exports values	..	..	0.1	-0.3

1/ As percent of GNP in finance-constrained scenarios.

2/ Exclusive of high income oil exporters.

1. Examples of the dangers of not coordinating policies

In the absence of a credible commitment to policy action to correct fundamental imbalances, market forces may bring about erratic fluctuations in financial markets, and may induce volatility in exchange rates, interest rates, and equity prices. Coordinated policies, if they address the fundamental problems and are perceived to be credible, can avoid the unfavorable effects of tensions in financial markets. 1/ Recent World Economic Outlook papers have stressed the tensions between the persistence of current account imbalances--a large deficit for the United States and large surpluses for Japan and the Federal Republic of Germany--and the assumptions of unchanged exchange rates and interest rates. 2/ The tensions in the baseline scenario were illustrated in two ways: in SM/87/221 an alternative scenario was presented in which it was assumed that foreign investors refused to acquire claims on the United States in excess of 15 percent of U.S. GNP, bringing about a depreciation of the U.S. dollar against other major currencies. In SM/88/52, the downside risk of unchanged policies was assumed to take the form of a financial crisis similar to the one that occurred in October 1987 but with more serious consequences for real variables: a decrease in industrial country wealth and investment, leading to an initial fall in industrial country GNP of 1½ percent relative to baseline.

In both scenarios, outcomes are unsatisfactory on a number of counts. Table 1 summarizes selected indicators in the medium term for these two scenarios, labeled 1 and 2. In Scenario 1, output is lower in the three major industrial countries during 1988-92, and the dollar depreciation produces higher inflation in the United States, than in the reference case scenario with its unchanged exchange rates. In addition, higher U.S. interest rates tend to exacerbate the U.S. fiscal deficit problem. Despite appreciations of 12 percent of the yen and deutsche mark against

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1/ Whether these alternative scenarios can be considered examples of "coordinated policies" depends on whether governments would, acting independently, have chosen such policies should the tensions discussed have materialized. In a related vein, the policy commitments detailed in the Plaza Communiqué of September 1985 and the Louvre Accord of February 1987 include policies that probably would have been taken in the absence of agreement with other countries, as well as those that were truly the result of "policy coordination". However, it is not possible to decompose policies into those that are the result of coordination and those that are not, without making further--and likely unrealistic--assumptions about policy objectives. Nevertheless, it should be noted that the alternative scenarios that are discussed below are compared to a baseline that is based on announced policies.

2/ "World Economic Outlook--Medium Term Scenarios" (SM/87/221 and SM/88/52). The most recent World Economic Outlook--the one that is scheduled for Executive Board discussion immediately preceding that for this paper--is not discussed here.

the dollar, occurring at the beginning of the period, current account imbalances remain considerable. In Scenario 2, output losses are also substantial in each of the three major industrial countries, and a decline in the demand for the exports of developing countries leads to a fall in their output relative to baseline and a worsening of their interest payments as a ratio to the value of their exports.

## 2. Examples of appropriate and of inappropriate coordinated policies

Coordinated policies that address the causes of imbalances may succeed in avoiding the unfavorable consequences of financial market tensions, and resulting sharp movements of asset prices. 1/ On the basis of recent experience it is possible to reach some tentative conclusions about appropriate policies and the form successful coordination might take; recent medium-term scenarios help to illustrate some of these conclusions. In particular, coordinated policies must avoid some of the pitfalls referred to above in Section III. In particular: 1) they should not be too focused, either on a single target (for instance exchange rates) or on a single instrument (for instance causing monetary policy to assume the full burden of international adjustment); and 2) they should be framed in a medium-term context, and avoid fine-tuning of policy instruments. Moreover, it is important to view policy coordination in a global context, even if it is the policies of the major industrial countries that are being considered; this is discussed more fully in the next subsection.

In both SM/87/221 and SM/88/52, coordinated policies involve fiscal contraction in the United States. In the former, they also include stimulus in Japan and Germany, in order to mitigate output losses in those countries; in the latter, fiscal easing in Europe is accompanied by structural policies that are assumed to lead to an increase in potential output, and in Japan, policy steps are taken to increase investment and to boost imports. Columns 1 and 3 of Table 2 present the results of these "coordinated policies" relative to the scenarios that contain the effects of unwinding of financial tensions through sharp exchange rate movements and a stock market crash, respectively. 2/

By construction, these two scenarios of Table 2 are more favorable than the scenario without policy changes, because it is assumed that speculative pressures in exchange markets and equity markets are defused by the policy actions taken. This seems reasonable in the light of widespread concern that the root causes of the U.S. current account deficit and of high real interest rates are the U.S. fiscal deficit position and insufficient demand by the rest of the world for U.S. exports. Hence a concerted effort to address these fundamental problems

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1/ This should not imply that some changes in interest rates and exchange rates will not take place.

2/ In other words, the figures in Table 2 give the changes in the values of variables relative to the unfavorable outcomes in Table 1.

might mitigate financial instability, though not necessarily prevent exchange rate movements: these scenarios involve some dollar depreciation, but less than in the finance-constrained scenarios.

Conversely, coordination of policies that neglected these fundamentals might make the problem worse. Scenario 2 of Table 2 illustrates two of the pitfalls of coordination: first, focusing only on a symptom of disequilibrium, the exchange rate, rather than on fundamental causes, and second, putting all the burden on one policy instrument. In this scenario, an attempt is made to peg exchange rates using monetary policies in major industrial countries, in the absence of any changes in fiscal policies. At the exchange rates prevailing in the baseline scenario of SM/87/221 (assumed to be those of May 1987), current account imbalances were projected to remain high in the medium term, requiring an eventual realignment of real exchange rates in the direction of a real depreciation of the dollar, and of real appreciations of the yen and deutsche mark. The model implies that the attempt by central banks to maintain nominal exchange rates at inappropriate levels brings about speculative pressures that force monetary policy to be more contractionary in the United States, and more expansionary in Japan and the Federal Republic of Germany, moving each of the three countries to less favorable positions on their output/inflation tradeoffs. The real exchange rate changes are brought about through price level changes; because of stickiness of prices, this involves output losses in the United States during the adjustment period.

### 3. Effects on developing countries

A further important point is that even if policy coordination takes place among the major industrial countries, the latter should not ignore the aggregate effects of their actions on the rest of the world. Column 4 of Table 2 presents a simulation that supplements those presented in SM/88/52, but is calculated relative to the same baseline. The same fiscal policies are followed in the United States, but in Europe and Japan, only the demand management policies are implemented. In European countries, the supply-side measures to achieve an increase in potential output are not put in place, and in Japan, the fall in saving is not accompanied by an opening of Japanese markets to foreign goods. Scenario 4 gives a considerably less favorable aggregate GDP growth for industrial countries as a whole than in Scenario 3 and also a worsening of the developing countries' output performance.

A further indication of the transmission effects of developments in industrial countries on developing countries can be obtained from partial simulations of MULTIMOD. If absorption rose by 10 percent in all industrial countries, but interest rates, exchange rates, and price levels remained constant, then the model implies that developing countries (exclusive of high income oil exporters) would increase their exports by about 11 percent, and that, for a given amount of financing flows to

developing countries, their imports would rise by a similar amount. <sup>1/</sup> Taking into account the size of their accumulated debt, this would imply a fall in their interest-payments-to-exports ratio by almost 1 percentage point, from its current level of about 11 percent. A second experiment gives an indication of the effect of monetary factors: a 1 percentage point increase in interest rates in industrial countries would, other things equal, lead to a worsening of a little more than 1 percentage point in the interest-payments-to-exports ratio of developing countries. This would require, for a given amount of financing, that imports be reduced below their baseline levels by about 1 percent. The cumulative effect of lower imports of investment goods would be to reduce output in developing countries by 0.3 percent relative to its baseline level after five years.

In addition, there are feed-back effects from developing to industrial countries, which imply that it is in the self-interest of industrial countries to take account of anticipated developments in the former when framing policy. In the first example discussed above--an increase in absorption of 10 percent in all industrial countries-- GDP in those countries goes up by 11 percent because of induced increases in the exports of industrial countries to developing countries. In the second example--a rise in interest rates in industrial countries--lower developing country imports cause output to fall in industrial countries (in addition to any direct effects of higher interest rates there). This illustrates the point that there are two-way linkages between industrial and developing countries, which makes it essential that policy coordination properly take account of outcomes for developing countries.

#### V. Issues for Discussion

The paper has identified a number of reasons why uncoordinated policies may not lead to optimal outcomes--either from a global perspective or from the perspective of individual countries. There is therefore clearly scope for international coordination of economic policies. By the same token, as illustrated in the medium-term scenarios of Section IV, there is nothing in the coordination process itself that in any way reduces the need for sound macroeconomic policies and for determined efforts to eliminate structural weaknesses at the national level. Indeed, it has been argued in this paper that the quality of coordination is as important as the quantity. In this respect, experience suggests that coordination is likely to yield the best results: when it is set in a medium-term context; when it pays due attention to fundamentals; when it is neither too focused on one particular target nor relies too heavily on a single policy instrument; when it is implemented in a judgmental rather than a mechanical fashion; when it operates as an evolving process rather than as an episodic regime-preserving enterprise;

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<sup>1/</sup> The model also allows for financing flows to depend positively on export performance, so that in this case, financing could be expected to increase somewhat.

and finally, when it takes account of the global consequences of policy actions and not just the effects on the group of coordinating countries.

Seen against this backdrop, it is apparent that significant progress has been made over the past three years in strengthening the process of international economic policy coordination among the larger industrial countries. Serious efforts have been made to adjust policies in light of shared objectives and, at times, to implement macroeconomic and exchange market policies in a joint manner; international economic interdependencies seem to be better recognized; and many of the design and technical issues in the exercise of coordination--particularly as they relate to the list and use of indicators--are well on their way to being resolved. Moreover, the Fund's role in this key area is by now well established, ranging from the collection and interpretation of indicators of policy action and economic performance; to the biannual World Economic Outlook exercise--including the discussion of medium-term scenarios that examine alternative policy actions; to the efforts to bring systematic concerns more into individual country Article IV consultations, to regular discussions of exchange rate development at the Executive Board; to finally, the participation of the Managing Director in G-7 coordination meetings.

Still, if the momentum toward multilateralism and away from bilateralism in international economic relations is to be sustained, and if progress in the design of the coordination process is to be increasingly channeled into more consistent and more timely implementation, efforts at further strengthening of the coordination process will need to continue. In this connection, Directors may wish to comment on the following three key issues.

First, how can the ongoing G-7 coordination exercise and the Fund's role in surveillance over policies of industrial countries best reinforce each other so as to improve both global economic performance and the functioning of the international monetary system? In particular, are existing mechanisms adequate for ensuring that due account is taken of the repercussions of policies of the larger, industrial countries on the smaller industrial and developing countries?

Second, is there scope for making more precise the monitoring of indicators in the policy coordination process--including possibly relating such monitoring to ranges of desirable and sustainable outcomes for key indicators? If so, what principles or guidelines should govern the monitoring process?

Third, in view of the difficulties associated with using movements in indicators as a trigger for automatic policy responses, would it be appropriate to develop more precise criteria for triggering special consultations?

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