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International Coordination of Fiscal Policies:
A Review of Some Major Issues*

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Abstract

International coordination of macroeconomic policies has attracted much attention in recent years. The main issue has been whether economic performance can be improved by coordination. Although it is still a controversial issue many economists have argued that coordination would make a positive contribution to economic performance. This paper deals with the requirements for successful fiscal coordination. It concludes that those requirements are such that the best fiscal policies that countries can pursue are those aimed at putting their houses in order.

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*Paper presented at the Conference on Fiscal Policy, Economic Adjustment and Financial Markets organized by the International Monetary Fund and the Centre for Monetary and Financial Economics, Università Bocconi, Milan, January 27-30, 1988. It will be published in the conference volume. This paper deals with issues that arise in the coordination of fiscal policy in a Keynesian or macroeconomic sense. A companion paper on "Economic Interdependence and the International Implications of Supply-Side Policies" by Vito Tanzi and Lans Bovenberg deals with the coordination of structural policies.

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Summary

In recent years there has been a great impetus toward policy coordination. This movement has been promoted by the "misalignment" of policies among major industrial countries, the growing recognition that the economies of the world are much more interdependent than they were in the past, and the externalities associated with unilateral policies.

This paper's first section deals with these aspects and concludes that in normal circumstances coordination of economic policy would improve economic performance although the magnitude of the improvement is disputed.

The second section of the paper focuses on the necessary conditions for an actively coordinated fiscal policy aimed at demand management on a global scale rather than at correcting fiscal imbalances in particular countries. The requirements for successful coordination of this sort are quite rigorous. The first basic requirement would be a jointly agreed and reliable forecast. The second would be agreement among countries, and within countries, on the main objective of economic policy. If one country emphasizes employment while another emphasizes price stability, coordination will be more difficult to achieve. Third, the policymakers who participate in the meetings at which coordination agreements are reached should be able to control the relevant policy instruments. Fourth, the policymakers must agree on a model that relates changes in policy instruments to changes in policy objectives. Furthermore, the model must give realistic answers. Fifth, the most politically powerful country must have the best policies. The paper discusses the difficulties of satisfying these various requirements.

The third section surveys the fiscal situation in the Group of Seven countries and concludes that the fight against fiscal disequilibrium is not yet over since in several of these countries fiscal deficits remain high and debt-to-GDP ratios are still growing. Because of the asymmetry of fiscal actions, and because of demographic changes, it is argued that the best form of fiscal coordination is one in which all countries aim at putting their fiscal houses in order.



I. The Case for Policy Coordination

Coordination means different things to different people. Webster's New Collegiate Dictionary defines it as the "act of coordinating," or the "state of being coordinated," and, perhaps more interestingly, "harmonious adjustment or functioning." Thus, the word coordination conjures in one's mind the image of an orchestra that is harmoniously led by a talented conductor. In this analogy the members of the orchestra, the players, would obviously be the countries' policymakers. It is not clear, however, who would be in the conducting role. That role could be played by the particular agreement reached by the policymakers at their latest summit or as a consequence of their latest consultations. Such an agreement would presumably concern only the period immediately ahead since it is unlikely that the policymakers would or even could commit themselves for a longer period. Or, in a more permanent arrangement, the role of the conductor could be played by a set of specific rules (perhaps based on some "economic indicators") agreed upon by the policymakers. In a way the Resolution that set up the European Monetary System provides an example of this possibility. Or even, in a futuristic world, where the national authorities have abdicated some of their decision-making responsibilities to an international or supranational body, that role could be played by an international organization. In the discussion that follows only the first of these possibilities is contemplated since the other two do not seem realistic for fiscal policy at this time.

The premise that there is a need to actively coordinate macro-economic policies rather than letting countries pursue independently their own economic interests is a relatively radical and novel one, especially with regard to fiscal policy. However, to some extent countries have indirectly coordinated policies, especially in connection with exchange rate arrangements, for a long time (see Fischer, 1987). ^{1/} Although this idea surfaced in the 1970s and was put to an early and not-too-lucky test, following the Bonn summit of 1978, it is only recently that it has gained wide attention on the part of both policymakers and professional economists. In fact, much of the writing on this subject dates from the past few years.

The recent impetus toward policy coordination has come from at least three directions. First, the belief on the part of many observers that the economic, and specifically the fiscal, policies of the major

^{1/} For example, the proponents of the fixed exchange rate system have argued that the Bretton Woods system was successful for a long time partly because it imposed discipline on the member governments' macroeconomic policies. The par value system was based on, and required, a large measure of policy coordination among participants. Some have argued that the prevalence of par values provided the simplest "indicator" system yet devised to gauge the existence of such coordination.

industrial countries have been widely "misaligned" in the 1980s. Second, the growing recognition that the economies of the world, and especially those of the industrial countries, have become much more interdependent than they were in the past. Third, the argument advanced by some economists that there are important externalities in policy-making; this implies that when countries act independently and in their own self-interests, policy changes may not be carried to the degree necessary to maximize the collective welfare of the group of countries.

1. Misalignment of fiscal policies

As to the misalignment of policies, the main issue in the 1980s has been the size and the sustainability of the U.S. fiscal deficit. The fiscal deficit of the central government of the United States rose by about 3 percent of gross national product between 1980/81 and the post-1982 period. This increase occurred in spite of the fact that the U.S. economy was enjoying an unusually long upswing; therefore, the "structural" deficit increased even more. This increase may have contributed to the upswing that started in 1983 and accelerated in 1984 but it created difficulties for both the United States and the rest of the world. At the time the major fiscal policy changes were introduced in 1981, the new Administration had expected that, because of the reduction of marginal tax rates and the introduction of various savings incentives (IRA, etc.), the household's saving rate would increase by about 3 per cent and this increase would largely finance the deficit that was seen to be temporary anyway. As it turned out the rate of saving fell and the fiscal deficit remained high and would have been even higher if various corrective measures had not been introduced (see Palmer, 1987).

The large increase in the fiscal deficit in a large country with a very low rate of saving was at least partly responsible for the high level of real interest rates that have characterized the 1980s. ^{1/} The restrictive monetary policy of 1979 and the early 1980s gave the initial upward push to real interest rates but, when monetary policy became accommodating after 1982, real interest rates were kept high by large fiscal deficits. ^{2/} While the structural fiscal deficit of the United States rose sharply after 1981, those of Germany and Japan, two countries with much higher saving rates, became somewhat smaller. This reduction may have helped contain the rise in the world's real rates of interest (see Tanzi, 1985a).

^{1/} See (Bovenberg, 1988; Feldstein, 1986; Mortensen, 1987; Muller and Price, 1984; Tanzi, 1985b).

^{2/} The investment incentives introduced by the United States in 1981 and 1982 as well as policies aimed at deregulating financial markets may also have played a role (see Tanzi, 1985, and Sinn, 1987).

As a consequence of these developments the balance of payments on current account of the United States deteriorated rapidly--from a surplus of US\$6.3 billion in 1981 to deficits of around US\$140 billion in 1986 and 1987. By the same token, the balance of payments on current account of Japan, which had been in deficit in 1979 and 1980, went into a small surplus in 1981 and 1982 and the surplus grew to exceed US\$80 billion in 1986 and 1987. A similar pattern is shown for Germany, which, as recently as 1981, had a deficit on current account. That deficit became a small surplus in 1982-84 and grew afterwards to reach US\$36 billion in 1986 and US\$35 billion in 1987.

The worsening of the U.S. current accounts has affected its international investment position. Table 1 shows that the net position of the United States vis-à-vis the rest of the world changed from a positive figure of US\$106.3 billion in 1980 to a negative figure of US\$263.6 billion in 1986. Up to 1981 the United States was the world's largest creditor nation. It was still a net creditor in 1984. By the end of 1986 it had become the world's largest debtor nation; 1987 added sharply to the U.S. indebtedness shown in the table. By 1987 the net indebtedness of the United States exceeded 8 per cent of its GNP. The figures may overstate the real net position of the United States since the asset side includes loans to developing countries which have much lower market values than their book values. However, the market value of other private assets may also be greater. 1/

The details in Table 1 are as important as the change in the net position. They show that while direct foreign investment in the United States increased by \$126.3 billion, foreign investments in U.S. securities increased by \$315.3 billion, while foreign investments in other U.S. bank and nonbank liabilities increased by \$324.3 billion. Thus, not only the net position of foreigners improved sharply, but it improved especially in those assets which can be disposed of quickly and for which expectations can play an important role. The table provides also some indirect evidence of the relative role of high interest rates and of good investment climate in attracting foreign capital. Although direct investment increased considerably (by \$126.3 billion), it was not the overwhelming factor in the change in the net indebtedness position of the United States as it has been, at times, argued. 2/

These years have also witnessed wide swings in exchange rates. The value of the dollar first rose sharply up to 1985 and then fell equally sharply. The changes vis-à-vis the yen and the deutsche mark have been

1/ By 1987 Germany and Japan had become net creditors to the tune of 16.5 percent and 14.1 percent of their respective gross national products.

2/ Some have argued that high interest rates could be a reflection of large demand for capital due to a good investment climate. Thus, the large inflow of portfolio capital could itself be a reflection of a good investment climate (see Sinn, 1987).

Table 1. U.S. International Investment Position
(Billions of current dollars)

Type of Investment	1980	1986	Change
Net position	106.3	-263.6	369.8
U.S. assets abroad	607.1	1,067.9	460.8
U.S. official reserve assets	26.8	48.5	21.7
U.S. government non-official reserve assets	63.8	89.4	25.6
U.S. private assets	516.6	929.9	413.3
Direct investment abroad	215.4	259.9	44.5
Foreign securities	62.6	131.0	68.4
Other U.S. bank and nonbank claims	238.5	539.0	300.5
Foreign assets in the U.S.	500.8	1,331.4	830.6
Foreign official assets in the U.S.	176.1	240.8	64.7
Other foreign assets in the U.S.	324.8	1,090.6	765.8
Direct investment in the U.S.	83.0	209.3	126.3
U.S. securities	90.2	405.5	315.3
Other U.S. bank and nonbank liabilities	151.5	475.8	324.3

Source: Constructed by William J. Kahley from data in R.B. Scholl, "The International Investment Position of the United States in 1986," Survey of Current Business, Vol. 67 (June 1987), p. 40. The table is taken from William J. Kahley, "Direct Activity of Foreign Firms" in Economic Review of the Federal Reserve Bank of Atlanta (Summer 1987) p. 39.

particularly significant. The rise in the value of the dollar was widely attributed to the increase in U.S. interest rates although the differential rate of expansion of the economies may have also played a role. The subsequent fall has often been attributed to the growing reluctance by foreigners to keep increasing the share of dollar-denominated assets in their portfolios (see Marris, 1985 and 1987). The earlier sharp increase in the value of the dollar and the continuing large current account deficit in the United States have generated protectionist pressures and other difficulties and have inevitably forced policymakers to attempt to deal with them. The Louvre Accord was generally seen as an arrangement on exchange rates even though it implied some commitment on economic policies by the participating countries. The "Statement of the Group of Seven" released on December 22, 1987 is more specific in listing the policy intentions and undertakings agreed upon by the Finance Ministers and Central Bank Governors of the seven major industrial countries.

2. Growing interdependence

There is plenty of evidence to indicate that industrial countries have become much more interdependent than they used to be. The most dramatic recent evidence of this interdependence was undoubtedly the behavior of the stock markets around the world after the 508 point fall in the New York stock exchange on October 19, 1987 ("black Monday"). Whether one considers the share of imports and exports in national incomes, shares that have increased sharply for many industrial countries in recent decades, or the size of capital movements, or the attention that policymakers now pay to the economic policies of other countries, the conclusion must be that the fiction of a closed economy, a fiction that is still kept alive in the pages of many economic textbooks, cannot provide useful insights to guide the economic policy of the real world. The internationalization of the financial and goods markets, together with the wide and immediate availability of information, has guaranteed that what happens in one country, and especially in a large country, will be felt by other countries. What this means is that the domestic fiscal policy multipliers associated with, say, a fiscal expansion by a single country become smaller than they were in the past. Furthermore, the smaller and more open is a country, the lower are these domestic multipliers likely to be.

3. The need for cooperative policies

There are obvious benefits associated with this interdependence and openness. International trade of products and factors among countries encourages specialization and brings about a more efficient international allocation of resources. Under normal assumptions, international trade raises the level of world income. This interdependence, however, has important implications for the conduct of fiscal and monetary policy. The discussion in this paper is focused on fiscal policy, so that references to monetary policy and to exchange rate policy are only incidental. Interdependence implies that there are important

externalities to some policy actions. These externalities may create inefficiencies in the sense that policy actions may not be carried to the level that would be considered optimal from an international point of view. In a closed economy, both the costs (political and economic) and the benefits of fiscal policy actions would be fully internalized. However, in an interdependent world, some of the benefits (and some of the costs) of that action will spill over to other countries.

Assume, for example, that the policymakers of a country X wish to pursue an expansionary fiscal policy to stimulate domestic economic activity and employment. Assume also that there are no offsetting actions on the part of other countries or on the part of the monetary authorities. The fiscal policy action on the part of X is generally assumed to increase its aggregate demand in the short run and, as a consequence, its level of imports. ^{1/} The increased exports by other countries will increase their level of economic activity and employment ^{2/} while country X will experience a deterioration in its trade account. The smaller is a country, and the more open is its economy, the greater will be the share of the total increase in demand that will affect other countries.

An example often mentioned to prove the above point is the expansionary fiscal policy pursued by the Mitterand Government in the early 1980s. It is maintained that the domestic beneficial effects of that action were largely dissipated by the openness of the French economy and by the consequent low fiscal multiplier. Soon the expansion had to be stopped because of the deterioration in the balance of payments of France. It can also be argued that a good part of the benefits and the costs of the U.S. fiscal expansion since 1982 accrued to other countries, either because they could maintain a higher level of economic activity because of higher exports to the United States, or because they had to bear the consequences of higher real interest rates or of fluctuating real exchange rates or terms of trade. Countries that export little to the United States but that are net borrowers, and that

^{1/} This generally accepted conclusion should be qualified when the fiscal expansion starts from a situation where there is either a large fiscal imbalance or a large public debt. In such cases, negative confidence effects may neutralize all or part of the expansionary effects. Furthermore, as Corden has pointed out in a recent paper (Corden, 1987), with flexible exchange rates it is possible that a country may expand without a deterioration in its current account.

^{2/} This conclusion is not true in all models. It is conceivable that expansionary policy in X may negatively affect other countries through effects on (a) real interest rates, and (b) terms of trade. For example, a large fiscal expansion in the United States that increased real interest rates could conceivably have negative effects on developing countries with large foreign debt. Ironically, if the debt is due to American banks and if it is paid, the United States could end up benefitting from this externality.

are closely linked in financial markets, would be particularly affected in a negative sense. In these countries the cost of borrowing (or servicing their stock of debt) would go up. The distribution of costs and benefits may have been unevenly distributed across countries depending on how close in goods trade their economies are to the U.S. economy and on whether they are net lenders or borrowers.

The argument presented above has implications for the coordination of fiscal policy among countries especially when economic activity needs to be stimulated. If, acting independently, countries would be reluctant to pursue expansionary fiscal policies, because of the balance of payments effects of these policies, they could all benefit, and they could neutralize the effects on the balance of payments if they all pursued a fiscal expansion at the same time. However, given different propensities to import, given different interest elasticities of investment demand, and given different trade connections with countries that are not part of the coordinated group, even in this case the results are not likely to be neutral. Furthermore, the countries would have to consider the inflationary implications of their joint expansion.

The situation gets more complex when one takes into account not just the benefits but also the costs of fiscal policy actions, and when coordination calls for expansion on the part of some countries and for contraction on the part of others (see Corden, 1986 and 1987). Experts on policy coordination, using game theory and other analytical tools, have described situations whereby policy coordination may reduce rather than increase the group's welfare. However, much of the literature seems to conclude that in normal circumstances coordination would be beneficial although the size of the benefits does not appear to be particularly large compared to the situations where countries do not coordinate.

The above discussion leaves unanswered, however, some important questions. For example, is it as feasible to coordinate fiscal policy actions as it is to coordinate monetary policy actions? Second, is there a possibility that short-run and long-run objectives of fiscal coordination may conflict? Third, what does coordination of fiscal policy mean? These issues are briefly raised in the next section.

II. Requirements for Successful Fiscal Coordination

Coordination can have several meanings which may range from a vague understanding that each country will do its best to keep, or to put, its own economy (and its own fiscal accounts) in good shape (under the belief that, as Stanley Fischer and others have argued, this is the best that each country can do for others), to a commitment by each country to take specific policy actions agreed jointly in coordination with other countries. For example, in a period of slow economic activity the group of countries--say, the Group of Seven--might agree to pursue expansionary fiscal policies. Alternatively, under circumstances in

which the fiscal policies of the countries are seen as being "misaligned," some country, say, the United States, might commit itself to pursue a policy aimed at reducing its fiscal deficit on condition that other countries, say, Germany and Japan, agreed to pursue more expansionary fiscal policies, at least for the short run, than they would otherwise. The discussion that follows focuses on this kind of coordination.

In a world in which the policies of individual countries attract a lot of attention on the part of other countries and international organizations (IMF, OECD, EC, etc.), it is safe to assume that some implicit coordination of policies is always taking place in the sense that countries do pay some attention to the impact that they are having on other countries or to what other countries expect them to do. For example, Article IV and World Economic Outlook discussions by the Board of the IMF together with the preparation and distribution of the relevant documents must inevitably have some influence on the policy behavior of countries. It would thus be unrealistic to assume that under current circumstances, and in the absence of explicit coordination agreements, the economic policies of countries would be guided by myopic behavior that totally ignores what other countries are doing or are likely to do.

Frequent interchanges among the policymakers of different countries, together with the great amount of information that is available to them, implies that rational and concerned policymakers would take into account both the impact of their policies on others and the impact of the policies of others on them. This strategic behavior is likely to produce better results than would be associated with myopic behavior and results which may not be too different in terms of benefits from those achieved through explicit coordination (see Minford and Canzoneri, October 1987.)

An actively coordinated fiscal policy that aims at demand management on a global scale rather than at correcting major fiscal imbalances in particular countries will have to meet various requirements to have a good chance of being successful in achieving its stated objective. This section discusses some of these requirements. The discussion focuses on fiscal policy of a demand management type. There are of course many other kinds of coordination. These are not considered here. The issues that arise are very complex. They would merit a far more detailed and technical treatment than can be provided in this paper.

1. Fiscal coordination and economic forecasts

A successful policy of fiscal coordination would require as a first condition that the relevant group of countries has jointly recognized that there is a need for a coordinated change in policy. This need would arise from a belief among the coordinating policymakers (ministers of finance and central bank governors) that, in the absence

of joint policy action, the outcome, in terms of variables measuring some economic objectives, at some future time (say, one or two years ahead) would not be desirable. As already mentioned, here the relevant comparison would not be with the alternative of no action but with the one of individual action based either on myopia or, more realistically, on strategic behavior--that is, a behavior that takes into account what other countries are doing and what they expect other countries to do. Thus, the first basic requirement for successful coordination seems to be a jointly agreed and reliable forecast. Here the issues are at least two: the reliability of forecasts and the agreement on the part of the countries on one of them as being the right one.

It is a well-known fact that forecasts are partly applied science, partly art, and partly divination. In a very recent and stimulating book dealing with the essence of science and with a major scientific revolution now taking place, James Gleick discusses the scientific basis for the forecasts made by scientists in different branches of science including astronomers, ecologists, weather forecasters, and economists. He writes that "by the seventies and eighties, economic forecasting by computer bore a real resemblance to global weather forecasting" (Gleick, p. 20). His assessment of weather forecasts is sharp: ". . . beyond two or three days the world's best forecasts [are] speculative, and beyond six or seven [days] they [are] worthless" (ibid). His assessment of economic forecasts is even sharper:

"Presumably [governments and financial institutions] knew that such variables as 'consumer optimism' were not as nicely measurable as 'humidity' and that the perfect differential equations had not yet been written for the movement of politics and fashion. But few realized how fragile was the process of modeling flows on computers, even when the data was reasonably trustworthy and the laws were purely physical, as in weather forecasting." (Gleick, p. 20)

Of course not all economic forecasts are made by computer models and Gleick would probably agree that forecasts made for the period just ahead have a far better chance of being right than those made for longer periods. But this is precisely the difficulty with respect to coordination of fiscal policy. As I shall argue below, it often takes quite some time before fiscal policy changes coordinated by a group of countries can be implemented and can have an effect on the world's economies. This time is likely to be somewhat longer than the period for which acceptably reliable forecasts can be made.

Forecasts are likely to be relatively reliable for the next six months and somewhat less so for the next 12 months. As the period is extended beyond that, they are unlikely to provide the kind of information on which policymakers would or should base their policy decisions. Of course we are discussing here fiscal policy coordination that aims at demand management and not fiscal policy

actions aimed at putting the fiscal accounts of a country in order. For the latter one does not need a forecast although the pace of adjustment must be determined on the basis of current and expected future economic conditions. The more vigorous is the current pace and the expected future pace of economic expansion, the more quickly can fiscal disequilibrium be corrected.

At this point it is perhaps important to make a distinction between coordination of monetary policy and coordination of fiscal policy. Once an agreement is reached by the policymakers of the coordinating countries, monetary policy actions can be taken immediately and well within the period for which existing forecasts provide relatively reliable results. For fiscal policy it is different. For fiscal policy, even when an agreement has been reached, it may take a long time before action can be taken. Thus, the issue being discussed at this point is not a major difficulty as far as monetary policy coordination is concerned but it is for fiscal coordination. ^{1/} In both cases, of course, there might be a long lag between the taking of action and the time when the results of that action are felt by the economy.

Examples of economic forecast errors for output growth, and inflation for six major industrial countries are shown by Tables 2 and 3. The tables show forecast errors made by national forecasts as well as by the World Economic Outlook (WEO) of the International Monetary Fund. All the errors refer to forecasts made for a period just one year ahead. Such a period is often far too short for the coordination and execution of fiscal policy.

The tables are largely self-explanatory; still a few aspects may be highlighted. First, the errors may appear small since they are given in percentage points but they are not when they are compared to the average values of the variables they are forecasting. Second, the errors would be larger if the forecasts were made for, say, two or three years ahead. Third, the errors appear to be particularly large in periods when economic conditions are changing rapidly, such as 1974 and 1982. But these are exactly the periods when one would want to have fiscal coordination of the demand management type. Fourth, in some cases, there are significant differences between the forecasts made by the countries' national authorities (say, the CEA forecast in the United States and the official forecast in Japan) and those made by the WEO (see also correlation coefficients in the tables). The differences between the forecasts made by the national authorities and those made by the Fund (or, for that matter, by the OECD) tend to be particularly large, in exactly those period when the strongest case for coordination could be made.

^{1/} But, of course, if there are long lags on the effectiveness of monetary policy as Milton Friedman has often argued, then the result is the same.

Table 2. Output Growth Forecast Errors, Year Ahead Forecast 1/

(In percentage points)

	United States				Japan		France		Federal Republic of Germany				Italy		United Kingdom	
	OMB	CEA	Con-sensus	WEO	Official	WEO	Official	WEO	Con-sensus	Five Wise Men	Official	WEO	ISCO	WEO	NIESR	WEO
1973	n.a.	0.8	0.2	0.4	4.3	0.5	0.0	0.0	-0.4	0.1	-0.9	-0.3	-0.9	-1.4	-0.8	-1.0
1974	n.a.	3.2	2.9	4.9	2.7	10.8	2.5	1.4	2.6	2.1	0.6	2.6	3.1	2.6	0.4	3.6
1975	n.a.	-1.0	1.0	0.3	0.9	1.2	4.2	4.7	6.1	5.6	5.6	5.4	3.7	4.6	3.5	4.0
1976	0.2	0.0	-0.1	0.2	-0.1	-0.7	-0.2	-1.8	-1.6	-1.1	-1.1	-2.2	-3.6	-4.2	-1.3	-0.7
1977	0.8	0.0	0.1	0.3	0.9	1.2	1.5	0.4	3.1	2.1	2.6	2.2	1.3	-2.2	-1.7	0.6
1978	1.3	0.4	-0.1	0.1	1.3	-0.8	1.2	0.1	-0.4	0.1	0.1	0.0	-0.6	0.4	-0.5	-0.5
1979	2.0	1.4	-0.8	1.1	0.2	-1.1	0.3	0.0	-0.4	-0.6	-0.4	-0.4	-1.0	-1.0	1.1	1.0
1980	1.2	-0.7	-1.1	0.2	-0.2	0.5	1.1	1.0	0.7	1.0	0.7	1.3	-2.5	-1.2	1.9	1.4
1981	-1.7	1.0	-0.7	-3.4	2.0	1.1	1.2	1.6	0.3	0.8	-0.2	2.3	-0.2	0.6	1.1	1.8
1982	5.1	4.2	2.4	2.6	1.9	2.7	1.2	0.6	2.2	1.7	2.5	3.1	1.3	2.1	0.1	-0.5
1983	1.0	-3.0	-1.3	-1.6	-0.3	0.5	1.1	1.8	-0.3	-0.3	-0.8	0.7	2.7	4.5	-0.8	-1.6
1984	-1.6	-1.1	-1.3	-2.5	-1.0	-1.8	-0.5	-0.3	-0.6	-0.1	-0.1	-0.6	n.a.	-0.2	-0.3	-0.5
1985	1.6	1.5	0.7	1.3	0.3	-0.4	0.4	0.4	-0.5	0.5	0.0	-0.1	n.a.	0.2	-0.6	-0.9
Average absolute error (1973-1979)	1.075	0.971	0.743	1.043	1.486	2.329	1.414	1.200	2.086	1.671	1.614	1.871	2.029	2.343	1.329	1.629
1980-85	2.033	1.917	1.250	1.933	0.950	1.167	0.917	0.950	0.767	0.733	0.717	1.350	1.675 <u>2/</u>	2.100 <u>2/</u>	0.800	1.117
Whole Period	1.650	1.408	0.977	1.454	1.239	1.792	1.185	1.085	1.477	1.239	1.200	1.631	1.900 <u>3/</u>	2.255 <u>3/</u>	1.085	1.392
Correlation Coefficient, WEO	0.89	0.68	0.83		0.50		0.88		0.91	0.92	0.86		0.86		0.86	

Source: Llewellyn and Arai (1984), updated and extended by M. J. Artis.

1/ Forecast errors are defined as forecasts minus realization values.

2/ 1980-83.

3/ 1973-85.

Table 3. Inflation Forecast Errors, Year Ahead Forecast 1/

(In percentage points)

	United States				Japan		France		Federal Republic of Germany				Italy		United Kingdom	
	OMB	CEA	Con-sensus	WEO	Official	WEO	Official	WEO	Con-sensus	Five Wise Men	Official	WEO	ISCO	WEO	NIESR	WEO
1973	n.a.	-2.3	-2.7	-2.3	-9.6	-6.3	-2.1	-2.3	-0.6	-0.1	-0.6	-0.4	-3.0	-2.3	-2.9	-0.5
1974	n.a.	-3.2	-3.5	-4.7	-8.1	-8.6	-4.1	-4.4	0.5	1.0	0.3	0.2	-10.2	-7.6	-2.8	-4.8
1975	n.a.	2.3	-0.2	0.5	5.1	9.0	-3.0	-2.1	-1.3	-2.3	-1.8	-1.1	1.6	-1.0	-5.6	-7.8
1976	2.0	0.9	0.7	0.6	0.0	-0.1	-1.9	1.1	1.4	0.9	0.9	1.2	-7.5	-2.8	-1.1	0.0
1977	0.1	-0.4	-0.3	-0.5	1.6	1.3	-0.4	-0.5	0.4	0.4	-0.1	0.1	-1.0	2.7	-1.0	-0.6
1978	-1.1	-2.3	-1.4	-1.3	0.9	-0.8	-2.0	-1.2	0.1	-0.4	-0.4	0.1	-1.2	-0.8	-0.3	0.4
1979	-2.2	-1.6	-1.1	-1.1	1.7	0.2	-1.5	-1.5	-0.3	-0.8	-0.3	-0.2	-3.4	-1.8	-3.2	-4.2
1980	-0.1	-1.0	-0.2	0.1	1.8	4.4	-2.4	-1.8	-0.5	-0.5	-1.0	0.1	-5.8	-6.2	-0.2	-4.6
1981	0.8	1.6	0.1	-1.3	1.5	1.6	-0.9	-3.1	0.4	-0.1	0.4	0.2	-3.5	-3.8	-0.4	1.2
1982	2.1	2.6	1.9	1.2	1.4	1.5	1.1	0.5	-0.3	-0.8	-0.8	-0.3	0.3	2.0	0.0	1.0
1983	2.3	1.5	1.5	1.8	1.5	2.3	-0.9	2.1	0.3	0.3	0.3	1.3	-0.1	2.0	1.7	2.2
1984	1.0	1.4	0.7	0.4	0.2	1.6	-0.5	0.3	0.6	1.1	1.1	1.1	n.a.	4.1	0.5	1.8
1985	1.3	1.1	1.0	1.0	-0.1	-0.5	-0.3	-0.4	0.3	-0.2	-0.2	0.4	n.a.	2.3	0.2	-1.1
Average absolute error (1973-1979) <u>4/</u>	1.350	1.857	1.414	1.571	3.857	3.757	2.143	1.871	0.657	0.843	0.629	0.471	3.986	2.714	2.414	2.614
1980-85	1.267	1.533	0.900	0.967	1.083	1.983	1.017	1.367	0.400	0.500	0.633	0.567	2.425 <u>2/</u>	3.500 <u>2/</u>	0.500	1.983
Whole Period <u>4/</u>	1.300	1.708	1.177	1.292	2.577	2.938	1.623	1.638	0.538	0.685	0.631	0.515	3.418 <u>3/</u>	3.000 <u>3/</u>	1.531	2.323
Correlation Coefficient, WEO	0.809	0.80	0.94		0.92		0.64		0.86	0.80	0.86		0.83		0.80	

Source: Llewellyn and Arai (1984), updated and extended by M. J. Artis.

1/ Forecast errors are defined as forecasts minus values for the GNP/GDP deflator (except for the U.K., and NIESR where the CPI was used).2/ 1980-83.3/ 1973-83.4/ Excluding 1973-85.

In conclusion one of the basic requirements for successful fiscal coordination, namely, the availability of a jointly agreed and reliable forecast is unlikely to be met. ^{1/} This has serious implication for fiscal coordination that aims at global demand management through fiscal policy changes although it is a far less serious obstacle for coordination in the monetary area and for fiscal coordination that emphasizes the correction of serious fiscal imbalances in particular countries or that emphasizes structural changes.

2. Fiscal coordination and economic objectives

Assuming that an agreement has been reached by the coordinating policymakers as to the relevant forecast, the next step must be to agree on the economic objectives that should be achieved through coordination. Should the main objective be an acceleration of economic activity, a reduction in the unemployment rate, a reduction in the rate of inflation, some adjustment in the balance of payments, a reduction in the real rates of interest, or some other objective? And if, as it is likely, more than one objective is important, how should the various objectives be ranked in terms of priority?

The issues that are likely to arise are two: coordination among countries and coordination within countries. Economic policy in democratic countries must, to a large extent, reflect the priorities of the citizens. If these priorities are ignored, elected policymakers are not likely to remain policymakers for long. This is, again, an area where one finds a large difference between monetary and fiscal policy especially in some countries.

In some important countries monetary policy is made by officials who are somewhat insulated from the political process. They are appointed for a given number of years, or even for an indefinite period, and cannot be removed. ^{2/} When Volcker in 1979 decided to pursue a restrictive monetary policy to sharply reduce the rate of inflation, he did not have to worry about the reaction of the electorate. This, however, is not the case with fiscal policy which is made by elected officials who have to worry about the next election and who have to coordinate their actions with the

^{1/} On the other hand, Masson and Ghosh have recently argued that model uncertainty may provide a strong incentive for countries to coordinate their policies if they recognize policy uncertainty. However, they do not explicitly account for lags in implementation (see Masson and Ghosh, 1987).

^{2/} The degree of statutory independence of central banks in conducting monetary policy varies substantially among the G-7 countries. In some countries they are required by law to secure approval by the Treasury Minister of key monetary policy decisions. The central banks of the United States and Germany are independent.

legislature keeping an eye on the electorate. What this means is that it would be unrealistic to assume that in the fiscal area the policymakers of a country would, to a substantive degree, subordinate the priorities of the country's electorate to those of the policymakers of other countries. It is well-known that Germans, reflecting their historical experiences, are more concerned with inflation than with unemployment. For Germans the worst economic experience in this century was the hyperinflation of the 1920s that wiped out the financial savings of that country's middle class. It is equally well-known that Americans, also reflecting their historical experience, are more concerned with unemployment than with inflation. Their worst economic experience was the Depression of the 1930s. Those events still cast a long shadow on current economic policy.

The one important example of cooperation of economic policies among countries, the European Monetary System (EMS), has succeeded in coordinating monetary and not fiscal policy. In fact the evidence so far is that there has been relatively little coordination of fiscal policy among the members of the EMS (see Tanzi and Ter-Minassian, 1987, and Russo and Tullio, 1987).

3. Fiscal coordination within a country

Much of the writing on fiscal coordination has simply assumed that policymakers meet at some important summit meeting and decide on a coordinating strategy that might imply changing the money supply by a given percentage or reducing or increasing the fiscal deficit by a given amount. On the basis of this change in the fiscal deficit, some economic model can then calculate the final effect on the variables that policymakers wish to influence through coordination. In the next subsection the relationship between changes in instruments (i.e., fiscal deficit) and changes in objectives (growth, inflation, etc.) will be discussed. At this point we discuss the question of what may happen between the time when, at some international meeting, a decision is made to change the fiscal deficit and the time when that decision becomes, if it does, the actual policy of a country. Paraphrasing an old Italian saying, in fiscal policy between the declaration of intentions and the implementation of actual policies one must deal with the role of the legislature.

Let us start with an agreement in which the policymakers of a country X, say, the United States, have agreed to reduce its fiscal deficit by 1 percent of gross national product. When the policymakers get back to Washington, the first decision that they will have to make is whether they will propose that the reduction be carried out through the revenue side or through the expenditure side of the budget. In either case, all they can do is propose the changes to Congress. The proposals will have to go to Congressional committees that will deliberate for months and perhaps for years and that will, eventually, and in all likelihood, come out with alternative

proposals that may bear little relation either quantitatively or qualitatively with the initial proposal. In this political process domestic priorities are likely to take precedence over international priorities. Besides, if the changes are important and they are on the revenue side, there is the question of whether the revenue estimating models now available are good enough to be able to assess, with any degree of precision, the relationship between the changes in the statutory rates and the actual revenue changes. If the changes are on the expenditure side, there is the question of whether they are permanent. In any case the control by the executive branch over this instrument, especially in the United States is much more tenuous than current writing on coordination implies.

If the proposal is on the expenditure side, one has also to deal with the budgetary cycle. Table 4 provides some information on this issue for the group of seven countries. The table shows that in one important case (United States) the cycle commences some 15 months before the proposals are sent to the legislature. In three cases it starts 9 months before and in the remaining three cases it starts 6 months before. The fiscal year for which the budget applies starts normally some time after the proposals are sent to the legislature. Once again the proposals that go to the legislature are likely to be modified both quantitatively and qualitatively. Thus, even if the coordinating agreement has been made at the very beginning of the cycle, it is unlikely that it will have much of an effect on expenditure for a time that can be longer than two years. And, of course, as already stated, at least in some countries, the final result is likely to differ sharply from the original intention. Furthermore, there will be a lag between the time the fiscal action is implemented and the time its effect is felt in the economy.

Let us summarize the most likely operating scenario for pursuing a policy of fiscal coordination. Presumably the action would start with a jointly agreed forecast for one year ahead. That forecast would send signals that some policy changes are needed. Thus, after some time, an agreement would be reached (perhaps at a summit). Such an agreement would conceivably ask different countries to reduce or increase their fiscal deficit by agreed amounts. On the basis of this agreement proposals to change revenue or expenditure would be prepared by each country. Eventually these proposals would go to the proper committees in the legislature where, at least in some important countries, they would be modified and sent to the full legislature. At some point they might be approved. Between the original agreement by the coordinating group and the enactment of the proposals, and between that enactment and the time when their effect is felt on the economy, a long time is likely to have passed. That time is likely to be well beyond the period for which reliable forecasts can be made.

Table 4. Opening Stages of the Annual Budget Cycle in
Seven Major Industrial Countries

Decision taken by	Nature of Decision	Months before Budget Presented to Legis- lature	Next Step
Canada	Cabinet Committee on Priorities and Planning	Total spending and and broad sectoral targets (envelopes)	6 Ministers submit detailed departmental bids, for approved programmes, for negotiation with Treasury Board
France	Prime Minister	Broad guidelines in "lettre de cadrage"	9 Ministers prepare and nego- tiate requests, leading to a specific Ministry target in "lettre de plafond" three months later
Germany	Minister of Finance	Total spending and broad guidelines	9 Ministers submit detailed departmental bids, for nego- tiation with the Minister of Finance
Italy	Treasury Minister	Changes required in total and by department	6 Ministers submit budget pro- posals to Treasury Minister
Japan	Cabinet	Policy guidelines on budgets	6 Ministries submit proposals to Ministry of Finance
United Kingdom	Cabinet	Planning total set for three years forward	9 Spending Ministers submit bids, if necessary, for amounts in excess of previously agreed baseline
United States	President	General fiscal and budget guidelines; sometimes departmental specific	15 Spending agencies submit bids to OMB

4. Fiscal coordination and the relationship between policy instruments and policy objectives

Assume that (a) policy changes can be enacted immediately and of the size and structure desired by the coordinating policymakers; (b) that policymakers of different countries have agreed on a forecast; (c) that they have agreed on the goals to be achieved through coordination; (d) that they have agreed in principle on the policy changes to be made. Thus, what remains to be specified is the size of the change to be made to, say, the fiscal deficit or the growth of money. Since much of the literature on macroeconomic coordination has concluded that coordination improves policymaking, it would follow that at least under this assumption there would not be any reason not to coordinate. Unfortunately, even under these ideal circumstances there is the important issue raised by the relationship between the policy instruments and the final objectives of policy. The issue discussed here is not limited to fiscal policy but extends to all policies.

Economics has not advanced to the point where it can give definite and precise answers to the question of what effect would, say, a given expansion in the money supply or an increase in the fiscal deficit, have on some basic objectives such as the rate of growth, inflation, the current accounts in the balance of payments, and so forth. Sometimes even theoretical answers are not easy. Often, governments rely on the results of econometric models to get some of these answers. There are now quite a few of these models serving different governments. If all of these models agreed on the answers and the answers were the correct ones, that would greatly facilitate coordination. If they all agreed but the answers were the wrong ones, the gains from coordination would be reduced but policymakers might still reach an easy agreement on what to do. A more serious practical problem arises when the answers that the models give to the same questions are different and the policymakers of the different countries must decide whether to trust the results of their own model or those of others. Just how serious is this issue of conflicting models? A recent experiment at the Brookings Institution in Washington addressed this specific issue.

In this experiment those in charge of 12 multicountry models were asked to simulate, independently, the effects of carefully-specified policy changes to see how much agreement there would be in the results obtained. Two of these changes concerned fiscal policy: one a permanent increase of U.S. real government expenditure of 1 percent of baseline GNP; the other a permanent increase in non-U.S. government expenditure also of 1 per cent of baseline GNP. These changes were simulated while the growth of monetary aggregates was assumed to be exogenous. The results are summarized in Table 5. They refer to the second year after the policy changes were made and show the cumulative percentage deviation from the baseline estimates.

Table 5. Simulation Effect of Fiscal Expansion
(Second Year After Policy Change)

	Income	Consumer Price Index CPI	Interest Rate i	Currency Value	Current Account CA	Current Account CA*	Inter- est Rate i*	Consumer Price Index CPI*	In- come Y*
Fiscal Expansion in U.S.	U.S.				Non-U.S.				
	(In percent)		(Percent)		(In per cent)				
MCM	+1.8	+0.4	+1.7	+2.8	-16.5	+8.9	+0.4	+0.4	+0.7
EEC 2/	+1.2	+0.6	+1.5	+0.6	-11.6	+6.6	+0.3	+0.2	+0.3
EPA	+1.7	+0.9	+2.2	+1.9	-20.5	n.a.	+0.5	+0.3	+0.9
LINK	+1.2	+0.5	+0.2	+0.1	-6.4	+1.9	NA	-0.0	+0.1
LIVERPOOL	+0.6	+0.2	+0.4	+1.0	-7.0	+3.4	+0.1	+0.6	-0.0
MSG	+0.9	+0.1	+0.9	+3.2	-21.6	+22.7	+1.0	+0.5	+0.3
MINIMOD	+1.0	+0.3	+1.1	+1.0	-8.5	+5.5	+0.2	+0.1	+0.3
VAR 1/	+0.4	-0.9	+0.1	+1.2	-0.5	-0.2	-0.0	-0.0	-0.0
OECD	+1.1	+0.6	+1.7	+0.4	-14.2	+11.4	+0.7	+0.3	+0.4
TAYLOR 1/	+0.6	+0.5	+0.3	+4.0	NA	NA	+0.2	+0.4	+0.4
WHARTON	+1.4	+0.3	+1.1	-2.1	-15.4	+5.3	+0.6	-0.1	+0.2
DRI	+2.1	+0.4	+1.6	+3.2	-22.0	+0.8	+0.4	+0.3	+0.7
Fiscal Expansion in Non-U.S. OECD	Non-U. S.				U.S.				
	(In per cent)		(Per cent)		(In per cent)				
MCM	+1.4	+0.3	+0.6	+0.3	-7.2	+7.9	+0.5	+0.2	+0.5
EEC 2/	+1.3	+0.8	+0.4	+0.6	-9.3	+3.0	+0.0	+0.1	+0.2
EPA	+2.3	+0.7	+0.3	-0.7	NA	+4.7	+0.6	+0.3	+0.3
LINK 3/	+1.2	+0.1	NA	-0.1	-6.1	+6.3	+0.0	+0.0	+0.2
LIVERPOOL	+0.3	+0.8	+0.0	+3.3	-17.2	+11.9	+0.8	+3.1	-0.5
MSG	+1.1	+0.1	+1.4	+2.9	-5.3	+10.5	+1.3	+0.6	+0.4
MINIMOD	+1.6	+0.2	+0.9	+0.6	-2.2	+3.2	+0.3	+0.2	+0.1
VAR 1/	+0.5	-0.3	-0.2	-2.4	+1.7	-2.6	+0.2	-0.1	+0.3
OECD	+1.5	+0.7	+1.9	+0.9	-6.9	+3.3	+0.3	+0.2	+0.1
TAYLOR 1/	+1.6	+1.2	+0.6	+2.7	NA	NA	+0.4	+0.9	+0.6
WHARTON	+3.2	-0.8	+0.8	-2.4	5.5	+4.7	+0.1	-0.0	+0.0
DRI	NA	NA	NA	NA	NA	NA	NA	NA	NA

Source: Reported in Jeffrey A. Frankel (1986), p. 21.

1/ U.S. CPI NA. U.S. GNP deflator reported instead.

2/ Non-U.S. short-term interest rate not available; long-term reported instead.

3/ Appreciation of non-U.S. currency not available; depreciation of dollar reported instead.

A remarkable feature of these results is their wide range. The U.S. fiscal expansion is seen to raise: (a) real U.S. income by anywhere between 0.4 percent and 2.1 percent by the second year and real foreign income by anywhere between zero and 0.9 percent; (b) the U.S. consumer price index by anywhere between -0.9 percent and +0.9 percent and the foreign CPI by anywhere between -0.1 per cent and 0.6 per cent; (c) U.S. interest rates by anywhere between 0.1 per cent and 2.2 per cent and the foreign rates by anywhere between zero and 1 per cent; (d) the value of the U.S. exchange rate by anywhere between -2.1 per cent for one model and +4.0 percent. The U.S. current account deteriorates by anywhere between \$0.5 billion and \$22 billion. The results of the foreign expansion on the United States can also be seen from the table. They all show equally broad ranges.

Besides the wide range of what should be similar results, a few aspects merit a brief comment. First, it should be recalled that these are largely demand-driven macroeconomic models. In some of them, expectations do not play much of a role. In those where they do, the issue is how accurately they have been modeled. For example, it is easy to be skeptical about results that indicate that, say, an announcement by the U.S. Government to increase government spending by 1 per cent of GNP would raise the value of the dollar. Second, the U.S. fiscal expansion is seen to affect non-U.S. incomes more than the non-U.S. fiscal expansion affects U.S. incomes. Third, the results shown refer to the second year after the policy changes. As one traces the effects beyond that period, some of them (for example, the positive effect on income) would vanish leaving the governments with higher public debts to service.

Finally, when the leading econometric models give results as varied as these, and when none of these models may give the true answer, one can sympathize with the difficulties faced by those who negotiate agreements on policy coordination. It is not easy to come up with a package of policy changes that would be accepted by all participants as a clearly optimal one. What we might have is coordination based on intuition. As Branson has put it: "With this range of disagreement on economic analysis, how are the negotiators to reach agreement?" (Branson, 1986, p. 176). And if an agreement is reached, how can one be sure that it will improve the situation? Once again one is brought to the conclusion that the best form of international policy coordination, especially in the fiscal area, is the one that encourages countries to pursue policies that over the medium run put their fiscal accounts in order while paying some attention to the pace at which changes are made.

5. Fiscal coordination and political leverage

A successful policy of fiscal coordination would be facilitated (a) if all of the participating countries had the same political and economic influence; or (b) if the one country that had more leverage either economically or politically was also the one with an economy

that is not facing major disequilibria in some of the areas to be coordinated. One of the reasons for the success of the EMS in reducing the rate of inflation of the member countries has undoubtedly been the fact that Germany was the major economic power in the group, and Germany's inflation rate was very low. Therefore, the other EMS countries were forced to pursue monetary policies that became progressively more consistent with Germany's. Moreover, restrictive monetary policies became more credible. In some sense the monetary authorities in other EMS countries took advantage of the stock of credibility of the German Central Bank. But, suppose, for example, that at the time the EMS came into existence Italy had been the major economic power in the group. Given Italy's inflation rate at that time, and its consequent monetary policy, it is conceivable that the other countries would at least in part have adjusted to the Italian policy. The result would probably have been a much higher rate of inflation over the longer run and the costs of anti-inflation plans would have been higher since these plans would have been less credible.

We have here in a way what could be called the fox-without-the-tail syndrome. As Aesop tells us the story, the fox that lost its tail tried to convince the other foxes that a tail was a burden after all so that the other foxes would be better off by cutting their own. International coordination of fiscal policy may create pressures on those countries that have been more successful in recent years in correcting their fiscal imbalances to relax their fiscal policy to bring it more in line with that of countries where less adjustment has taken place. These pressures on the former will become stronger the less successful are the latter in bringing their fiscal houses in order. If these pressures succeeded, fiscal coordination might not generate over the medium run the desirable results, even if it succeeded in bringing some short-run stimulation to aggregate demand.

III. The Fiscal Situation of the Major Industrial Countries

In the two previous sections various issues connected with fiscal coordination were discussed. In this section it may be worthwhile to take a look at the fiscal accounts of the seven major industrial countries since these have attracted the attention of experts and policymakers in connection with the coordination of macroeconomic policies. Some economists have suggested that Japan, Germany, and, perhaps, the United Kingdom should pursue expansionary fiscal policies since these countries have presumably won their battle against fiscal disequilibrium. The United States, Italy, and Canada, on the other hand, should continue with their attempts to rein in their fiscal deficits. The advice to France has been less clearcut.

The underlying model on which this advice is based seems to be a kind of global Keynesianism whereby the world is assumed to have a given amount of aggregate demand which is partly sustained by the fiscal deficits. Therefore, to prevent a recession, if demand is reduced by fiscal restraints in some important countries, the reduction must be compensated by fiscal expansion in others to maintain the world's aggregate demand. Of course monetary policy could be used as a substitute for fiscal policy to stimulate private sector activity. This aspect is ignored in our discussion here, although it has played a large role in current discussions on coordination of macroeconomic policies.

The case for fiscal expansion by some countries has, perhaps, been made most forcefully by Willem Buiter in several articles. Citing from a recent article:

"There should be a 'supply-side friendly' fiscal expansion in the fiscally strong industrial countries, such as Japan, Germany, and the United Kingdom. The behavior of their debt/GDP ratios, their primary deficit and, in the case of Japan and Germany, their current account deficits suggest that these countries have ample fiscal elbow room. In addition there is considerable real slack in all three economies. . . ." (Buiter, 1987, p. iii).

Since at least 1982, the International Monetary Fund has been advising industrial countries with large fiscal deficits to reduce them (see de Larosière, 1982 and 1984). This strategy was outlined in some detail by the staff of the Fund in the April 1987 World Economic Outlook, the Fund's yearly assessment of the international economic situation. In that study the Fund staff reaffirmed their belief that there is a need for medium-term correction in the fiscal accounts of industrial countries but warned that a too sudden reduction in the U.S. fiscal deficit could reduce government demand faster than the private sectors in the United States and abroad could pick up the slack, thus possibly leading to an economic slowdown of the world economic activity. Nonetheless, "in the case of the United States, the danger in not proceeding promptly and vigorously with fiscal restraint is that financial markets may eventually react unfavorably to continued large borrowing needs on the part of the government" (IMF, 1987, p. 20). A reduction in the U.S. fiscal deficit, by reducing interest rates, would stimulate investment in the United States and abroad. Furthermore, the removal of a major worry from the economic scene would contribute to a climate more favorable to an expansion of private sector activity.

The WEO suggested that Italy and Canada should give consideration to policies "that would achieve cuts in the fiscal deficit more quickly" while for Japan and the Federal Republic of Germany "there would be a case for a less ambitious program of fiscal consolidation" (ibid). There is thus no doubt about the medium-run

direction of the policy that was advocated by the Fund staff vis-à-vis fiscal consolidation. The concession to coordination of fiscal policy was the speed of fiscal adjustment in some countries.

Given these contrasting positions between those who advocate a fiscal activism that minimizes the need for fiscal adjustment (or the potential dangers of fiscal expansion) and those who emphasize the objective of medium-run fiscal consolidation, it may be worthwhile to comment briefly on the current fiscal situation in the major industrial countries.

Table 6 gives the fiscal balances of the general governments of the Group of Seven (G-7) countries as percentages of GDPs or GNPs. The improvement in recent years in the fiscal accounts of Germany and Japan is obvious. However, the table shows also that in 1987 the fiscal accounts of all the countries were still running deficits and some (Italy, Canada, France, and the United States) were running relatively large deficits. Furthermore, various fiscal maneuvers (temporary taxes, sales of assets, amnesties, windfall revenues) had temporarily reduced these deficits in several of these countries so that the "core" deficits were somewhat higher. For example, the Congressional Budget Office of the United States has estimated that these temporary factors had reduced the U.S. fiscal deficit by \$37 billion in 1987. In the United Kingdom the sale of assets generated revenue close to 1 percent of GDP in 1986-87. In the United States the fiscal deficit of the central government is expected to go up again, from \$150 billion to \$157 and \$176 billion in 1988 and 1989, in the absence of significant policy changes (see Congressional Budget Office, 1988).

The fall in the rate of inflation has also reduced the nominally measured fiscal deficits while the inflation-adjusted fiscal deficits have fallen by less. Furthermore, large surpluses of the social security systems are, in some countries (such as the United States) hiding large deficits of the rest of the public sector. For example, the Congressional Office of the United States has projected that the Federal Funds Deficit (that is the deficit net of social security and other trust funds) would be close to \$300 billion between 1989 and 1993 (CBO, op. cit., pp. 76-77). The surpluses of these trust funds are accumulated to build reserves to meet future needs and not to finance the rest of the government.

Aggregated data for the G-7 countries indicate that their fiscal deficits for the general government, as shares of combined GDPs, reached a peak of 4.1 percent in 1983, fell to 3.3 percent in 1984 and 1985, and declined to about 3.1 percent in 1986 and 2.7 percent in 1987. As percentages of aggregate net private savings the deficits reached a peak of 70 percent in 1983 and fell to 48 percent in 1986, and 42 percent in 1987.

Table 6. General Government Fiscal Balances 1/
(As per cent of GDP/GNP)

	1980	1981	1982	1983	1984	1985	1986	1987
United States	-1.3	-1.0	-3.5	-3.8	-2.8	-3.3	-3.5	-2.4
United Kingdom	-3.4	-2.5	-2.4	-3.4	-3.9	-2.9	-2.7	-1.4
France	0.0	-1.9	-2.8	-3.2	-2.7	-2.9	-2.9	-2.8
Germany	-2.9	-3.7	-3.3	-2.5	-1.9	-1.1	-1.2	-1.7
Italy	-8.5	-11.3	-11.3	-10.6	-11.5	-12.5	-11.4	-10.5
Canada	-2.8	-1.5	-5.9	-6.9	-6.4	-7.0	-5.5	-4.6
Japan	-4.4	-3.8	-3.6	-3.7	-2.1	-0.8	-1.1	-0.4

Source: IMF.

1/ A minus sign indicates a deficit.

The change in the fiscal situation in the three major countries since the early 1980s implies that the fiscal deficits have fallen in economies with large domestic savings (Japan and Germany), where they could more easily be financed through domestic sources, and have increased in the United States which has a low and falling saving rate. This has meant that a large share of the U.S. indebtedness had to be financed from foreign sources. This has sharply increased the share of dollar assets in the hands of foreigners. 1/

The demand for dollar assets on the part of foreigners is likely to depend on the relative rates of return to dollar assets as compared to other assets, and on the perception of risk on the part of the foreign lenders. One type of risk is associated with the depreciation of the dollar. Another, which is closely related to the previous one, is inflation in the United States. The U.S. Government is in the unique position of being able to inflate itself out of some of its foreign debt, since this debt is held in dollars. However, since much of its debt is short term, expected inflation would quickly lead to increases in interest rates thus sharply limiting this possibility.

Over the past two years, Japanese and German investors have suffered large losses on their holdings in U.S. securities because of the depreciation of the dollar. A continuation of large (even if falling) deficits in the United States would require that foreigners keep increasing their stock of dollar-denominated assets unless the U.S. savings rate goes up or the U.S. investment rate falls. It does not seem reasonable to assume that foreigners would be willing to accommodate progressively larger dollar balances in their portfolios without demanding higher rates of return. An increase in the fiscal deficit of Japan and Germany, by creating an additional demand for funds, would not make the financing of the U.S. fiscal deficit any easier and would possibly hurt other net borrowers such as indebted developing countries.

Table 7 gives the total debt of the general government as a share of GDP or GNP. In the 1980s the shares have been either growing (United States, France, Italy, and Canada) or relatively stable. If, instead of considering general government we had considered central government, the total debt ratios would be growing in all countries. Whether increasing or stable, large public debts bring about large public spending (because of interest payments) which in turn, when other expenditures cannot be reduced, brings

1/ Between 1982 and 1985 the general government fiscal deficit of the United States was absorbing around 20 percent of the total net private savings of the G-7 countries. The depreciation of the dollar after 1985 implied that a smaller share of the total G-7 savings was necessary to finance the U.S. deficit. This might help explain some of the decline in real interest rates in the past couple of years.

Table 7. General Government Total Debt

(As per cent of GDP/GNP)

	1980	1981	1982	1983	1984	1985	1986	1987
United States	37.7	37.1	41.1	44.0	45.1	48.5	50.5	51.6
United Kingdom	54.9	54.9	53.6	54.0	55.3	53.7	53.8	53.0
France	25.0	25.9	28.3	29.8	32.6	34.6	36.4	38.3
Germany	32.5	36.3	39.5	40.9	41.7	42.3	42.4	43.2
Italy <u>1/</u>	67.4	70.4	76.8	84.4	91.1	99.6	102.4	107.1
Canada	44.7	45.1	50.5	54.5	58.2	63.7	67.4	70.2
Japan	52.0	57.0	61.1	66.9	68.4	69.4	69.1	69.5

Source: OECD.

1/ Data for Italy do not reflect the recently revised national accounts changes.

about high taxes with likely disincentive effects. ^{1/} Both Tables 6 and 7 and the related comments in the text indicate that the fight against fiscal disequilibrium is not over. There are other reasons as well why it might be imprudent to push Japan and Germany to pursue expansionary fiscal policies.

The experience of many countries, both industrial and developing, indicates that fiscal policy is not like a faucet that can be turned on and off. It is relatively easy to create a large deficit, as the United States proved in 1981. It is very difficult to reduce a large deficit, as the United States has been proving since 1982. There is a clear asymmetry in fiscal policy. Most spending programs once in place cannot be easily removed. Taxes are easier to reduce than to increase. These facts should bias the attitude of policymakers toward caution. This is again an area where the difference between fiscal and monetary policy is considerable.

Another important factor--the aging of the population--is also highly relevant in this context, especially in connection with Japan but also, later, in connection with Germany. ^{2/} This factor will, in time, have two major consequences. First, it will bring about substantial increases in social expenditure. Second, it will reduce the private saving rate of the countries, as the proportion of the population with high propensities to consume rises. Take Japan as an example. In a recent study on the reasons for that country's high saving rate, Horioka has concluded:

"With respect of future trends in Japan's private saving rate, the dominant influence will be the dramatic changes in the age structure of the population: a decline in the ratio of the young will cause the savings rate to increase slightly until 1995 while a rapid increase in the ratio of the aged will lead to a precipitous decline in the rate thereafter." (Horioka, 1986, pp. 25-26.)

^{1/} In the OECD countries larger expenditure for interest payments has been accompanied by smaller capital expenditure by the government. For the G-7 countries combined, the public debt ratio to GDP has increased from around 40 percent in the 1976-81 period to 58.3 percent in 1987. For the 1984-87 period the ratios were, respectively, 51.7 percent in 1984, 54.5 percent in 1985, 56.8 percent in 1986, and 58.3 percent in 1987. Because of the depreciation of the dollar, the share of the U.S. public debt in the total G-7 public debt has fallen from 46 percent in 1985 to 37 percent in 1987.

^{2/} According to OECD projections, the proportion of population aged 65 years and over will rise in Japan from 10.5 percent in 1986 to 15.1 percent in the year 2000 and to 21 percent in the year 2020. In Germany it will rise from 15.1 percent in 1986 to 17 percent in the year 2000 and to 21.7 percent in the year 2020.

1995 is only seven years away. A Fund study on aging and social expenditure has the following conclusions:

"The impact of demographic change on the Japanese economy is likely to be the most extreme among the Group of Seven. . . . Specifically, the elderly dependency rate will rise by 65 percent in the next 15 years . . . the social expenditure ratio [will rise] by almost 40 percent through 2,000 This would imply the need for considerable fiscal adjustment." (Heller, et al., 1986, p. 8.)

Given these factors, and the inertia of fiscal changes, it would seem prudent not to create a fiscal situation that in a few years might generate problems that would be difficult to solve.

In policymaking there is another bias to worry about: this is the one that leads policymakers to apply much higher rates of discount to benefits that come further in the future than to benefits that come immediately. In other words, there is a tendency to alleviate current problems at the cost of more serious future problems. Larger fiscal deficits might bring immediate benefits in terms of higher economic activities but at costs that may be considerable over the longer term.

Table 8, based on the Federal Reserve Board Multicountry Model, helps make this point. The results in the table were part of the Brookings experiment reported earlier. The table traces the effects of fiscal expansion, both by the United States and by other OECD countries, through a period of six years. It indicates that an increase in U.S. real government expenditure equal to 1 percent of U.S. GNP would increase the GNP of the United States by 1.6 percent in the first year and 1.8 percent in the second year over the base line. After that the benefits from the fiscal expansion begin to fall. By the sixth year the fiscal expansion would leave the United States (a) with GNP no higher than it would have been without the fiscal expansion; (b) with a price level that is 2.3 percent higher; and (c) with a government expenditure (and presumably a fiscal deficit and a public debt) higher than it would have been. Presumably, though this result was not reported, the impact of the fiscal expansion on the GNP for periods beyond the sixth year would be negative. Thus, if one believes the results of this exercise, short-term benefits have been bought at long-term costs. The table shows also that a foreign fiscal expansion would have a relatively small impact in the short run on the United States and none over the medium run.

Table 8. The Impact of Fiscal Expansion Over Time
(Amounts are cumulative percentage deviations from baseline)

	Year					
	1	2	3	4	5	6
<u>U.S. fiscal expansion 1/</u>						
U.S. GNP	1.6	1.8	1.4	0.9	0.5	0.1
U.S. prices	0.1	0.4	0.9	1.4	1.9	2.3
Foreign GNP	0.3	0.7	0.9	0.9	1.0	1.0
Foreign prices	0.2	0.4	0.6	0.7	1.0	1.2
<u>Foreign fiscal expansion 2/</u>						
U.S. GNP	0.3	0.5	0.4	0.2	0.1	0.0
U.S. prices	0.0	0.2	0.3	0.4	0.6	0.7
Foreign GNP	1.1	1.4	1.3	1.2	1.1	1.1
Foreign prices	0.0	0.3	0.6	0.9	1.2	1.6

Source: Adopted from Table 1 in Edison and Tryon (July 1986), p. 6.

1/ A permanent increase of U.S. real government expenditures of one percent of baseline GNP.

2/ A permanent increase in foreign real government expenditures of one percent of baseline GNP.

IV. Concluding Remarks

In this paper some major issues related to international macro-economic policy coordination have been surveyed. The focus has been on the coordination of fiscal policy. Issues that arise specifically in the context of the coordination of monetary policies or exchange rate policies have been largely ignored, even though they are obviously important. The relatively negative conclusions reached in this paper vis-à-vis the successful coordination of fiscal policies may not be equally relevant to these other forms of coordination.

The paper has highlighted two aspects. First, it has emphasized that many practical difficulties would arise in any attempt at the coordination of fiscal policy among industrial countries. Some of these difficulties have been ignored by proponents of fiscal coordination. Second, the paper has taken issue with those who maintain that countries, such as Japan, Germany, and the United Kingdom, are now in a situation where they could, and should, pursue fiscal policies associated with larger fiscal deficits. It is claimed that such a policy would help pull the world economy from its low-growth path and bring the current accounts balances of the major industrial countries closer to a sustainable path. What is being proposed is, in fact, some sort of fine tuning on a global scale.

Those who were skeptical in the past about attempts by some countries at fine-tuning their economies are likely to be even more skeptical at this proposed internationalization of these policies. The connection between expansionary fiscal policies and faster growth rates is tenuous at best. There is simply no convincing evidence that the countries that have pursued more restrictive fiscal policies have grown any less fast than those which have pursued expansionary fiscal policies. The United Kingdom, for example, has done relatively well in recent years in spite of a conservative fiscal policy. In the United States the rate of growth of the economy accelerated in 1987 in spite of a sharp reduction in the fiscal deficit in that year. In Denmark the general government fiscal balance changed from a deficit of 9 percent of GDP in 1982 to a surplus of 3 percent in 1986. This remarkable change was accompanied by a very fast increase in demand. In Belgium the fiscal deficit was reduced by 2.7 percent of GDP in 1987 without any negative effects on the economy. These reductions in fiscal deficits were largely the result of explicit government policies and not the natural outcome of fast-growing economies. On the other hand, the fiscal expansion of the second half of the 1970s in many industrial countries did not make them grow any faster than the others. Often the opposite was true.

Where coordination of fiscal policy may be highly relevant is with respect to some structural aspects, including tax reform. Well-designed major reforms of the tax system, even when they are revenue neutral, are likely to have important impacts on growth as well as on

the movements of financial capital and factors of production. This is an area where coordination could yield large dividends since tax reforms can be used by countries to gain a competitive advantage over other countries. However, in this area there are also serious practical difficulties in coordination.

If "supply-side friendly" tax reforms could be coordinated, they might help promote faster world growth and more efficient economies (see Tanzi, 1987). In this respect the recently proposed reduction in tax rates on the part of Germany is welcome even though it did not go far enough in reducing marginal rates and in removing tax-induced disincentives. That reduction, however, is welcome more for its efficiency aspects than for its demand-promoting effects. The same can be said for the recent commitment by the Japanese Government to increase its spending for public works. The government final consumption expenditure as a percentage of GDP is much lower in Japan than in other OECD countries--9.7 percent for Japan as compared to 17.2 percent for total OECD in 1985. An increase in this expenditure, if directed toward bottlenecks in infrastructures, could give important returns regardless of whether or not it increased Japan's fiscal deficit.

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