G-7 Economic Coordination and Developing Countries

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This paper addresses the question to what extent, if at all, better economic policy coordination among the major industrialised countries 1 can be economically helpful to developing countries, taken as a group. The major industrialised countries can influence the economic prospects of developing countries through three quite different, although possibly related, tangible channels:

1. by setting a "tone" of the overall world economy in terms of growth in aggregate demand;

2. by establishing the degree of ease or restrictiveness with which products from developing countries can enter their markets;

3. by providing savings, both public and private, to developing countries to foster their development.

These three channels, on which we will focus, ignore what is undoubtedly the most important but less tangible influence, namely new ideas, both conceptual (e.g. the very idea of economic development as something that can be achieved through conscious and deliberate government action) and practical, in the form of new technologies, management techniques, or approaches to economic policy.

We will first address the implications of macroeconomic developments of trade policies, and of resource flows in the major industrialised countries for developing countries. In the second part we will turn to the possible role of better G-7 coordination in influencing overall aggregate demand, openness of markets, and transfers of savings.

I. THE IMPLICATIONS FOR DEVELOPING COUNTRIES

Macroeconomic policies

The G-7 countries together accounted for 61 per cent of gross world product (GWP) in 1990, and other OECD countries contributed an additional 11 per

¹ The G-7 comprise the United States, Japan, Germany, France, Italy, the United Kingdom, and Canada, ordered by magnitude of gross domestic product in 1990. I use G-7 as a shorthand for a process that also involves the OECD and, to a less extent, the IMF.

cent. Their collective actions therefore determine the overall tone of the world economy. Moreover, they are not constrained by a severe shortage of foreign exchange or lack of access to foreign capital, as many developing countries are, so they can frame their policies with little regard for the short-run implications for their international payments, although of course they must be concerned with their levels of external debt in the long run.

The G-7, and OECD as a whole, clearly operated their economies below capacity during the 1980s, as manifested by higher-than-normal unemployment rates and lower-than-desired rates of capacity utilisation. By the end of the 1980s these economies seemed to be operating at or even modestly above potential, but economic slack re-emerged during the early 1990s (see chart 1).

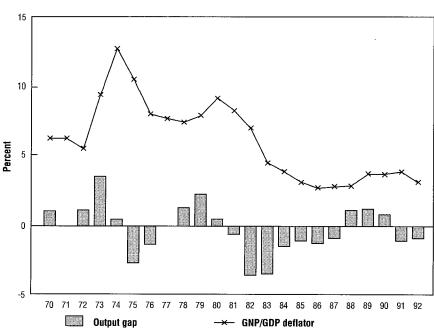


Chart 1 Price and Output Gap Developments in the Seven Largest OECD Economies, 1970-'92

Note: Based on 1987 GDP weights and exchange rates. The output gap is defined as the difference between actual and potential output relative to potential output. A positive value means that the economy is operating above its potential and a negative value that there is slack in the economy. GNP/GDP deflator is calculated as percentage change from the previous year.

Source: OECD Economic Outlook 49 (July 1991).

For example, in 1984 the United States is estimated (by the OECD Secretariat) to have operated 3 per cent below its potential output, Japan at 1.7 per cent below its potential, and Germany at 6.7 per cent below its potential (as reported in McKibbin-Sachs, 1991, p.106).2 If the G-7 economies had been run at their full potential, their demand for the products of developing countries would clearly have been higher. Given the economic slack that prevailed in many developing countries during most of the 1980s, and the fact that many of these economies were constrained by lack of foreign exchange, this additional demand could generally have been supplied by them, thus generating higher incomes and permitting greater imports. But running the G-7 economies at potential would also, arguably, have led to higher interest rates, thus increasing debt service obligations of those many developing countries that had large external debts. Servicing those debts at higher interests rates would have reduced the ability of developing countries to import, thus (given their dependence on imports as essential components of production, and of investment) reducing output and incomes in developing countries. What would the net effect of these conflicting factors have been?

Unfortunately, and perhaps surprisingly, we do not know. To answer the question properly requires a full, adequate model of the world economy, one that includes plausible structures for developing countries. But such work is still in its infancy. Important but still relatively primitive exploratory work can be found in Currie and Vines (1988) and by Muscatelli and Vines in Bryant et al.(1989), in both of which the developing world is characteristically modelled as a single entity exporting primary products to a unitary "North," which in turn exports manufactured goods to the South.³

There are several reasons for this surprising deficiency, warranting a brief digression on the methodological problems of macroeconomic modelling of the world economy.

Part of the problem concerns disagreements over how best to model the world, or indeed any complete economy, and in particular over the balance to be struck between effectiveness for short-run forecasting and model-simulation, on the one hand, and consistency of the long-run, usually

² For a discussion of the concept of potential GDP and output gaps, with estimates for major OECD countries, see Torres and Martin, 1990.

³ Extensive work on interdependent global systems began seriously only in the 1980s. A survey can be found in Cooper (1985). Important new work appears in Buiter and Marston (1985). An extensive examination of global empirical models can be found in Bryant et al(1988). An early policy simulation of an interdependent system is in Cooper (1969). An extensive recent effort is McKibbin-Sachs (1991). None of this work focuses on developing countries, although McKibbin-Sachs identifies two groups of developing countries, exporters of oil and of other raw materials.

presumed to be steady-state properties of the model. Models focusing on the short run are usually driven by demand, those focusing on the long run by factors that affect potential output. Models focusing on the short run with reasonable good forecasting properties have regularly been constructed, but they typically neglect changes in outstanding debt and in the capital stock. These factors cannot be neglected in the long run, and economists differ in their judgements over the degree to which their neglect in the short run will introduce significant errors in policy simulations.

Full-fledged models with an interesting degree of detail were beyond reach until relatively recently, but advances in computational capacity have now made it possible to construct and run very complicated numerical models, which of course require quantitative estimates for the structural coefficients. A second problem concerns disagreements over the values of these structural coefficients, and in particular over the relative importance in determining output and prices of stock variables (e.g. debt or capital stock) as opposed to flow variables (e.g. debt service or new investment), and over the role of expectations in price formation not only for financial assets, but also for primary commodities that have some asset-like characteristics. There is no convincing way to estimate the coefficients or empirically validate quantitative guesses from history covering the relatively short period of 25 years of (barely) adequate data.

For example, in a model noted for its attention to balance-sheet consistency and stock-flow relationships, McKibbin and Sachs (1991) find that an output-increasing fiscal expansion in the United States will worsen the terms of trade both of oil-exporting countries and of non-oil exporting developing countries (that are assumed to export only industrial materials). This runs strongly against the more traditional view, recently re-asserted by Gilbert (1990) on the basis of simple regressions, that increases in industrial output in the OECD countries, whatever its source, will improve the terms of trade of primary-product exporting developing countries. We will revert to these contrasting results below.

In addition, the interest rate continues to play a much more important role in influencing investment in economists' models of economies than it seems to play in actual economies, insofar as one can judge from empirical attempts to estimate the quantitative role of interest rates.⁴

Moreover, we must face the *possibility* that a full-fledged model of the world economy, necessarily a system of non-linear differential equations, will be "chaotic" in the technical sense that it does not converge to a well-defined

⁴ For instance, Gilbert and Palaskas in Winters and Sapsford (1990) find no impact of interest rates on the world prices of six important primary products: cocoa, coffee, copper, rubber, sugar, and tin.

equilibrium even in the absence of new shocks exogenous to the model, but rather continues in unpredictable non-periodic motion, perhaps confined to some given range of the endogenous variables. Such systems are known to be highly sensitive to initial conditions. Since it will never be possible to express initial conditions completely and with complete accuracy, such systems, although deterministic, become highly unpredictable after a period of time; only the near-term can be predicted reasonable well with some robustness to error or incompleteness in specification of the initial conditions.⁵ McKibbin-Sachs (1991, pp.43-44) report that their model, while highly non-linear in form, performs very similar to a linear model, and indeed most of their simulations and policy experiments are done in the (log)linearised version. The same is apparently true of John Taylor's highly non-linear model.⁶ The reason is straightforward: these models impose a long-run equilibrium on the model structure, to assure consistency over time, especially with respect to forward-looking expectations. This imposition of stead-state equilibrium, however, represents an expression of faith in the strength of the adaptive mechanisms of modern economies, rather than an empirical finding. It raises in a different form the problem of empirical validation.

A further problem arises in the proper specification of the "South." This is a convenient collective term for all poor countries. But it is analytically troublesome. The "South" comprises over 125 countries which range in per capita income (1990) from \$80 (Mozambique) to \$7050 (Saudi Arabia). They have very little in common apart from being poor relative to most OECD countries. They cannot engage in collective action, so cannot be treated as a policy-making entity, even though of course individual countries pursue policies responsive to world economic developments. The standard stylisation is that developing countries produce and export primary products, and import manufactured goods. With growth over the past 25 years in the importance of oil in world trade, and with a different system for pricing world trade in oil, it is at a minimum necessary to distinguish between oil-producing developing countries and others. Behaviourally, some (but not all) oilexporting countries are more like developed countries, in that they are not chronically short of foreign exchange and hence have some latitude to frame their economic policies without regard to short-run availability of foreign exchange.

Inspection of the structure of world trade in the late 1980s reveals that some industrialised countries are large exporters of primary products,

⁵ See Ekeland (1988), chapter 2 and appendix 2; or Ruelle (1991), chapters 10-12. Also Baumol and Benhabib (1989).

⁶ Communication from Warwick McKibbin.

especially foodstuffs, as indeed they have always been, and that developing countries are big importers of primary products, especially oil and foodstuffs. Moreover, more than half the non-oil exports from developing countries now consists of manufactured goods. So it is no longer appropriate, if it ever was, to identify the prices of primary products (including or excluding oil) relative to manufactured goods with the terms of trade of (all or non-oil) developing countries. Yet this assumption has continued to dominate modelling of North-South economic interchange (e.g. Vines-Muscatelli in Bryant(1989) or McKibbin-Sachs (1991); but contrast McKibbin-Sundberg (1993) and Allen et al.(1992), where smaller groups of developing countries are modelled differently).

The proper characterisation of developing countries would therefore need to involve a minimum of three by predominant export: oil, non-oil primary products, and manufactured goods. For some purposes the second category should be sub-divided into those that export predominantly foodstuffs and beverages, and those that export industrial materials, agricultural or mineral. Yet many developing countries, particularly the larger ones, like developed countries are quite diversified in their exports. Furthermore, they show wide variation in the level and structure of external debt, a factor that is especially important in assessing the impact of macroeconomic developments in the G-7 on developing countries. Thus it would be better still to focus the problem at hand more precisely, and model the components of the "South" that are of special interest, e.g. Sub-Saharan Africa or South Asia, rather than lump all developing countries together.

Having said all this, I will offer an order of magnitude estimate of the impact on export earnings of developing countries that would have occurred if the G-7 had operated their economies at potential output during the 1980s, rather than considerably below potential as they did. In doing so I make several important assumptions: First, I assume that output was maintained at potential with that combination of fiscal and monetary policies that would have left nominal interest rates on the path they actually experienced, i.e. fiscal expansion would have been accompanied by sufficient monetary expansion, overall, to prevent a rise in interest rates. Thus debt service would not have been higher on account of higher interest rates.

Second, oil prices would have followed the same path they actually followed. This is a plausible assumption through 1985, but the sharp 1986 drop in oil prices would have been unlikely in the presence of stronger G-7

⁷ In 1986 56 per cent of exports of non-OPEC developing countries were manufactured goods. Sixty-six per cent of world exports of non-fuel primary products originated in the developed economies, compared with 23 per cent in the non-OPEC developing economies (the remainder came from OPEC and centrally planned economies). Figures from Gilbert (1990).

demand, since Saudi Arabian output would not have fallen as sharply as it did in 1985.

Third, exports from developing countries were not constrained by limitations on supply; that is, exports could have expanded readily in response to stronger demand, perhaps with additional investment over the decade. "Readily" does not necessarily imply at constant cost, since, as we shall see, stronger demand would have raised the prices of non-food primary products somewhat.

Fourth, inflation in the industrialised countries would have followed the same path it actually followed. Growing at potential is not inconsistent with maintaining a non-inflationary environment. In fact, however, inflation is unlikely to have come down so rapidly without the recession of 1982, with its downward pressure both on prices and on wages. However, a somewhat slower decline of inflation could be accommodated in the calculation that follows, with the numbers scaled up to allow for the inflation.

Fifth, industrialised countries continued to keep their markets at least as open as in fact they were. For reasons to be discussed below, this is a reasonable assumption, and indeed under the hypothesised circumstances the industrialised countries very likely would have been more open to exports from developing countries, particularly manufactured goods.

Finally, no allowance is made for the additional direct investment that probably would have been made in developing countries in the presence of more abundant corporate profits in the industrialised countries.

The G-7 dropped below their potential output in 1981, fell short by about 4 per cent in 1982 and 1983, recovered to about 2 per cent below potential in 1984-86, and then gradually restored output to potential (which was lower than it might otherwise have been because of weak 1981-87 investment) in 1988. Industrial production drops more than GDP when demand is slack, as in the early 1980s, and with it drops the demand for primary products that are inputs into production. A rise in aggregate demand will be accompanied by a greater increase in industrial production (by a factor of perhaps 1.5), an increase in demand for industrial materials roughly proportionate to industrial production, and a rise in the price of industrial materials from their depression lows (by a factor of 1.9 until the slack has been eliminated – see Gilbert (1990)). The demand for oil will also rise relative to what it would be otherwise, assumed proportionate to the increase in GDP, even though the 1979-1980 oil price increases were inducing oil conservation in all activities. Finally, higher incomes will result to greater purchases of manufactured goods, from developing countries among other sources, roughly in proportion to the increase in income. Putting all these factors together suggests that annual exports from developing countries as a group would have been \$10 to \$45 billion higher during 1981-87, depending on the year, or

about 5 per cent of their exports during this period, of which most would have accrued to the non-oil exporters (see Table 1). This increase in earnings would not have been enough to cover the external borrowing that took place in the period (\$116 billion in 1982, \$85 billion in 1984, \$81 billion in 1986). But it would have eased considerably pressure on the developing countries to compress their imports and, as a consequence, their production.

Table 1

	Shortfall from G-7 Potential GDP (%)	OPEC Exports	Exports by non- Opec Developing Countries	Estimated Impact				
	(\$ billion)							
1981	0.8	281	355	10				
1982	4.0	211	341	45				
1983	3.8	181	352	40				
1984	2.0	166	387	25				
1985	1.8	153	381	25				
1986	1.9	112	393	25				
1987	1.0	128	488	15				

Sources: OECD, IMF, and author's calculations

This kind of calculation involves partial equilibrium analysis at its most primitive, but it provides a plausible order of magnitude figure of the impact of effective full employment policies on developing countries, and at this stage is as defensible as any of the still primitive attempts at general equilibrium analysis. Of course, if any of the first five assumptions specified above were relaxed, the estimate would be qualified, e.g. to allow for higher interest payments on debt or higher payments for oil imports.

There are two respects other than better macroeconomic management by which the G-7 can help the developing countries: by opening their markets to products from developing countries, and keeping them open; and by transferring resources to developing countries in forms that enlarge and improve the efficiency of the capital stocks there. Both are related to aggregate demand in the G-7 insofar as maintenance of full employment permits and encourages a liberal trade policy, and insofar as high profits permit and encourage direct foreign investment and provision of foreign assistance. But they are logically separate from global aggregate demand.

Trade policies

As a generalisation, the major industrial countries have maintained open markets in recent years, and indeed opened them further during the 1970s and the 1980s, as agreed reductions in tariffs during the Kennedy Round (1967) and the Tokyo Round (1979) of multilateral trade negotiations were phased in over eight years following the conclusion of each round. The Tokyo Round, for instance, resulted in an average reduction in tariffs into the European Community, Japan, and the United States on non-agricultural products by about 30, 42, and 44 per cent, respectively, comparable to the 35 per cent reductions under the earlier Kennedy Round (Anjaria et al, 1982, Table 46). In addition, all three major areas in the early 1970s introduced the Generalised System of Preferences (GSP), conferring duty-free treatment to many manufactured goods from developing countries. And the United States in 1983 inaugurated the Caribbean Basin Initiative, which provided more extensive preferential coverage to goods originating in the Caribbean area (for a discussion of the CBI, see Krueger, 1993, chapter 7).

The major exceptions to these liberalising tendencies were agricultural products, including processed agricultural products, especially into the European Community; and textile and apparel products into all the major markets. The latter category continued to experience high tariffs, especially into the United States, and was subject to quota restrictions into the EC and Japan as well. In addition, procedural protection, largely in the form of threatened or actual anti-dumping suits, became common in the United States and the EC during the 1980s. For instance, 13 anti-dumping and 7 anti-subsidy cases were initiated in the United States in 1980-81; the corresponding numbers grew to 62 and 16 in 1988-89 (Krueger, 1993, p.112; also Finger, 1993).

Despite continuing restrictions on imports of textiles and apparel and a growth in procedural protection, developing countries as a group enlarged greatly their exports to the OECD countries; their share in imports of manufactured goods grew from 5 per cent in 1969 to 13 per cent in 1989. While a disproportionate share of this growth accrued to the four "Asian tigers" – Hong Kong, Singapore, Korea, and Taiwan – the rapid growth was in fact widespread, extending to other Asian and Latin American countries as well.

Further opening could occur. Hufbauer and Schott (1993, p.17), for instance, reckon that the creation of a North America Free Trade Area, combined with continued reforms in Mexico, could result in an increase in Mexican exports to the United States by about 25 per cent after five years, with little of the increase resulting from trade diversion from other developing countries.

Protectionist pressures evoke greater public sympathy when unemployment is high or rising, i.e., when an economy is running below potential. But experience in the United States suggests that protectionist pressures are highest, not when unemployment is highest (i.e. during recessions), but rather when the dollar is overvalued, i.e., when US exports are meeting greater competitive pressure in overseas markets, and import competition is exceptionally stiff. Such was the case, for instance, in the late 1960s and again in the mid-1980s (see Destler (1992)).

Resource transfers

The industrialised countries serve not only as markets for developing countries, but also as sources of ideas, practical knowledge, and capital. Table 2 indicates net resource flows to developing countries over the period

Table 2 Total Net Resource Flows to Developing Countries

	ODA	00F	Private	Total	ODA	00F	Private	Total
1970-1990		Current \$ Billion					Prices and nge Rates	
1970	8.2	1.0	7.0	20.0	33.2	4.0	28.3	80.9
1971	9.1	1.2	6.9	21.9	34.1	4.5	25.9	82.1
1972	9.8	1.4	9.6	24.2	32.7	4.7	32.0	80.7
1973	12.7	2.3	15.0	33.9	36.3	6.6	42.9	96.9
1974	16.5	2.6	12.2	37.5	43.1	6.8	31.8	97.9
1975	21.0	3.3	23.8	56.6	47.0	7.4	53.3	126.8
1976	20.3	3.3	22.2	56.6	44.3	7.2	48.4	123.4
1977	21.0	3.3	28.8	67.0	41 <i>.</i> 9	6.6	57.4	133.6
1978	34.0	5.4	46.8	106.0	57.6	9.2	79.4	179.7
1979	31.7	5.7	53.9	104.1	48.5	8.7	82.5	159.3
1980	37.5	8.0	66.0	128.4	52.4	11.2	92.3	179.5
1981	37.2	9.2	74.3	139.1	54.6	13.5	109.0	204.0
1982	33.8	10.3	58.2	116.0	51.2	15.6	88.1	175.6
1983	33.9	8.5	47.8	94.8	51.7	13.0	72.8	144.4
1984	34.8	12.7	31.7	85.4	54.5	19.9	49.6	133.7
1985	37.0	11.6	30.5	83.1	57.4	18.0	47.3	128.8
1986	43.9	11.9	26.7	81.8	54.0	14.6	32.9	100.6
1987	48.2	13.3	33.7	92.6	51.1	14.1	35.7	98.2
1988	51.4	14.1	43.8	107.2	50.7	13.9	43.2	105.8
1989	52.9	12.6	48.3	123.3	52.9	12.6	48.3	123.3
1990	62.6	16.2	60.8	144.2	55.9	14.5	40.3 54.3	128.9

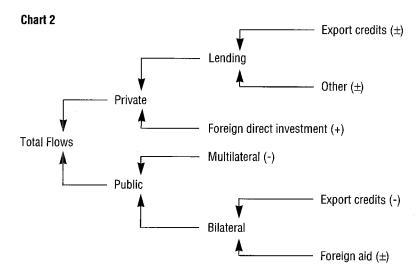
Note: Totals include net increase in short-term export credits, not included in components.

Source: OECD

1970-1990, broken down by official development assistance (including that from multilateral development banks), other official financing (such as over one-year export credits), and total flows from private sources. There it can be seen that private net capital flows peaked at \$74 billion in 1981. Total flows reached and exceeded their 1981 peak by 1990, at \$144 billion. The eighties were an inflationary decade, however, and in real terms the 1990 flows were still less than two-thirds what they had been in the extraordinary year of 1981; but they had reached again the levels of the mid-1970s, and at no time during the 1980s did they drop below the level of 1974 or earlier.

How do capital flows depend on macroeconomic developments in the industrialised countries? That is not at all clear, partly because capital flows involve a wide variety of motivations. Chart 2 identifies the main kinds of capital flows to developing countries, and suggests hypotheses about whether such capital flows in general are encouraged (+) or discouraged (-) by vigorous economic activity in the sending countries.

Economists have emphasised the importance of the interest rate, but that is in fact only one factor that influences total capital flows, and perhaps not the most important one. It is true, however, that the surge of private lending in the late 1970s was associated with negative short-term interest rates, thus encouraging those that were creditworthy to borrow (see Little et al., chap.3). A boom in industrial countries will raise interest rates, on that account discouraging such lending. On the other hand, under boom conditions developing countries are more likely to be seen as creditworthy, thus encouraging such lending.



Thus there is an ambiguous effect. Similarly with private export credits: higher interest rates and strong home demand will discourage them, but positive spill-over effects to the developing countries will increase both demand for exports and apparent creditworthiness of the borrowers.

Foreign direct investment, in contrast, is quite clearly positively related to strong business activity at home, among other factors. Corporations are more likely to take on new ventures at home or abroad when they have high profits and a strong cash flow. Thus it is not surprising that American direct investment abroad diminished in the mid-eighties, while Japanese investment surged; or that Japanese investment diminished significantly in the early 1990s. Foreign direct investment in developing countries rose from around \$10 billion a year in the mid-1970s to \$25 billion by 1990, but that represented only a small increase in real terms.

With respect to public capital flows, which in the late 1980s made up over half the total, a distinction also has to be made according to form and motivation for capital flows. Under booming conditions in industrialised countries that spill over into developing countries, demand for non-concessional loans from multilateral development banks, particularly if they carry policy conditions, is likely to be lower than during periods of economic slack. (Concessional loans and grants are always in demand, but are limited in availability.) Similarly, demand for official export credits, both by importers and by exporters, is likely to be lower under buoyant economic conditions than under slack ones, except for those products, such as large civil aircraft, that are sold only with official export credits or guarantees.

The influence of macroeconomic conditions on bilateral aid flows, in contrast, is somewhat ambiguous. These are made largely from appropriated funds, so are dependent among other things on budgetary conditions in the aid donors. With strong macroeconomic performance these are likely to be more relaxed, due to high revenues, than they are during periods of economic slack, when revenues are low and pressures will be exerted for spending more on domestic activities. On the other hand, the apparent need for economic assistance to developing countries will also be greater during periods of economic slack, and tied aid (export credits in disguise) will be a tempting way to help developing countries and domestic producers at the same time. Of course, much bilateral aid is largely dominated by political factors that are less sensitive to macroeconomic developments, e.g. US aid to Israel and Egypt.

II. WHAT ROLE FOR BETTER MANAGEMENT?

The discussion above has focused on the relationship of the OECD or G-7 economies to the economic well-being of developing countries, via demand

for their products, interest rates on their external debt, openness of their markets, and transfers of resources. What role can closer cooperation among the industrialised countries play in enhancing the positive impact on developing countries?

Macroeconomic policies

I have suggested that a G-7 operating at full potential GDP would have helped the developing countries on balance, although individual indebted countries whose exports are not sensitive to aggregate demand in the industrial countries might have been made worse off, via higher interest rates. Even here, however, it is necessary to be clear how we define "country" – are we focusing on all the residents, or merely (as in practice) on the indebtedness of the government? – and to define indebtedness net of all external claims of the "country" thus defined.⁸

We may now ask, what contribution would better *coordination* among the G-7 have made to this process? Or to put it another way, were the national actions that were actually taken markedly different from what they would have been under an arrangement that provided when necessary for close coordination of economic policies? We will turn in a moment to the historical answer to this question, but it is worth first addressing why uncoordinated national actions might differ systematically from coordinated ones.

We may suppose that national governments, in their roles as managers of the national economy, are concerned with output relative to capacity, unemployment, inflation, the current account and external borrowing, the international terms of trade (which influences the standard of living that can be attained from a given level of output), and the budget deficit and outstanding government debt. It is well-known that where countries have similar objectives and similar (correct) views of how their economies work, coordinated action can often improve upon a non-cooperative pursuit of national objectives. Governments in open economies may be reluctant to act alone to stimulate their economies out of fear of worsening their current account positions, for instance, whereas collective action will attenuate this

⁸ During the height of the debt crisis Venezuelan residents were estimated to have had external assets in excess of their government's external debt, and nearly as great in the case of Argentina. The World Bank has estimated private Mexican assets abroad at over \$41 billion at the end of 1987, nearly half the public long-term external debt. See "World Debt Tables 1991-92", vol. 1, p. 44.

⁹ See Oudiz-Sachs (1984), Cooper (1985), and various chapters in Buiter-Marston (1985). Frankel-Rockett (1988) shows that coordinated action may *not* improve on uncoordinated action when one or both of two national authorities have an incorrect model of how their economies work.

problem. Similarly, two or more countries attempting independently to reduce their rates of inflation in a regime of floating exchange rates will generally pursue fiscal policies that are too expansionary and monetary policies that are too contractionary in the interests of reducing inflation at minimum cost to output; but their actions will offset one another to some extent, preventing each from gaining the anti-inflation advantage of an appreciated currency, leaving them with higher interest rates and more inflation (or lower output) than they need have if they pursued a cooperative strategy. This particular example is of special relevance to heavily indebted developing countries, since a world of higher-than-necessary interest rates leaves them worse off than they would be under a cooperative strategy (by the same token, however, it improves the condition of the creditors, *perhaps* but not necessarily overcoming the losses associated with failure to coordinate).

During the early 1980s the major industrial countries were attempting to reduce inflation substantially, under conditions of floating exchange rates. ¹⁰ As we have seen, economic activity was exceptionally low during most of the 1980s, and that cost developing countries, on the rough calculation made above, about five per cent of their exports. If the economies had been run at full potential, inflation almost certainly would not have come down so rapidly, although real interest rates (relevant to heavily indebted countries) would not necessarily have been higher than they were.

An alternative scenario would have left output on the path it actually attained (with the resulting downward pressure on rates of inflation), but would have altered the monetary-fiscal mix of policies within and between major countries, in a way that would have led to lower short-term interest rates. In particular, this would have required less US fiscal stimulus, more European and Japanese fiscal stimulus, and a modestly easier monetary policy in all regions. Under these circumstances, the US dollar would not have appreciated against the yen and the mark as much as it actually did during the early 1980s under the strongly divergent movements in fiscal policy that prevailed, and dollar interest rates would have been lower. On both counts, heavily indebted developing countries would have been better off, since most debt was denominated in US dollars, and most commodity markets operate in dollars.

A 100 basis point reduction in short-term interest rates, for example, would have reduced interest due on outstanding variable interest rate loans to developing countries in 1985 by \$4.0 billion, and interest payments on all outstanding non-concessional loans by \$6.3 billion (assuming those would

¹⁰ Except among France, Germany, and Italy among the G-7, all of whom were members of the European exchange rate mechanism of quasi-fixed exchange rates created in 1979. Even so, Italy had an exceptionally wide (12 per cent) band of allowable variation, and central rates within the ERM were in fact changed roughly annually until 1987.

have carried lower interest rates from earlier years). Interest rates on short-term credits would have been \$1.3 billion lower, roughly offset by \$1.6 billion lower earnings on foreign exchange reserves. For comparison, total interest payments by developing countries in 1985 were \$65.5 billion (excluding \$2.9 billion in payments to the IMF), and interest arrears were \$7.8 billion.¹¹

To ascertain the net effect of a change in the policy mix confidently requires a general equilibrium model adequately structured to address this problem, focusing on the impact on developing countries. McKibbin-Sachs (1991) simulate a major dis-inflation by the industrial countries under cooperative and non-cooperative arrangements, but their inflation-reduction targets are arbitrary rather than historical. Moreover, their model treats developing countries only in a cursory way, and contains high short-term substitutability between raw material inputs and capital and labour in the industrialised countries, making their induced demand for oil and raw materials (the sole exports of two groups of developing countries) highly sensitive to the relative price of raw materials, and hence to the dollar exchange rate. 12 For what it is worth, however, McKibbin-Sachs (1991, p. 182) show a substantial first-year gain to developing countries in a notional coordinated dis-inflation starting in 1986, equivalent to about \$31 billion, or roughly 10 per cent of their exports in that year, compared with a non-coordinated dis-inflation. This gain derives solely from interest savings on external debt, as the trade balance of non-oil developing countries is actually worse in the first year under policy coordination, and the terms of trade substantially worse (pp. 184-85), for the reasons already mentioned and because total output in the industrialised countries falls substantially. And of course this gain from lower interest rates by externally indebted countries comes at the expense of creditors.

In the early North-South model developed by Muscatelli and Vines (1989) a fiscal expansion in the North implies a *worsening* of the South's terms of trade, as well as a rise in interest rates, hurting developing countries on both counts.¹³

¹¹ All calculated from data reported in the World Bank, "World Debt Tables, 1990-91", vol. 1, pp. 126-128.

¹² Such that, for example, a fiscal expansion in the United States, which raises output in all industrial countries by varying amounts, actually leads to a *reduction* in demand for oil and other raw materials and a consequential worsening of developing countries' terms of trade, even in the first year of impact, as dollar appreciation leads Europeans and Japanese to substitute capital and labour for raw materials in their production. This result is highly implausible.

¹³ Alogoskoufis and Varangis (1992) find that fiscal deficits in the G-5 worsen the terms of trade of developing countries, presumably on grounds that high interest rates affect directly the prices of primary commodities. But their empirical work is marred by the failure to allow for the fact that fiscal deficits normally rise in recessions, due to shortfalls of revenue, and that is when demand for many primary products is also weak, thus producing a negative but spurious correlation between the two.

The first result is the opposite of the one usually found, and found in the North-South context by Masson and Helliwell (1990) using the IMF's global model Multimod. Muscatelli and Vines (p.399) themselves express considerable doubt whether a fiscal contraction in the industrial countries would really leave developing countries better off. More recently, Allen and Vines (1993) argue against fiscal contraction by the Clinton administration on grounds that it will create a recession in developing countries as well as in the United States, unless it is clearly accompanied by a substantial dose of monetary easing.

Even if macroeconomic policy coordination might have benefitted developing countries during several past episodes, and particularly during the 1980s, we must ask whether it was feasible and, if so, why it did not take place. In my judgment, it was not feasible. Policymakers' disagreements on how their economies functioned were simply too great to make close macroeconomic coordination feasible except during temporary convergence of perceived interests [and shared outcomes]. Academic economists also continue to show substantial disagreement on the way they conceive economies as working, resulting in the substantial differences in view alluded to above (see Cooper in Bryant et al.(1988)). With respect to policymakers, one has only to recall Mrs. Thatcher's strongly monetarist views of what was best for the British economy; Ronald Reagan's supply side views about the American economy, and the continuing disagreements over the long-run consequences of the resulting accumulation of US public debt; the German fiscal and monetary panic of early 1981; Francois Mitterrand's historical mission for the French economy until he reversed course sharply in 1983; and the urgency with which Helmut Kohl's government seized the opportunity to unify Germany, heedless to the fiscal implications. Such strong-headed even if possibly wrongheaded views by national leaders about appropriate or acceptable macroeconomic policies are not going to be put under international control, and it is misguidedly optimistic to suppose that they can be in the near future. Rather, the international system should be designed to be robust to occasional misguided policies or other disruptive action by major countries.

There is the further problem that skillful macroeconomic management involves both monetary and fiscal policies, and that for two important players – the United States and Germany – monetary policy is not under the control of the national government. Under the Maastricht Treaty, all EC countries must also make their central banks independent of sitting governments, and France has announced its intention to move in this direction soon. Thus national governments, in attempting to coordinate their policies, will be unable to commit their central banks (except via commitments to exchange rate arrangements), but can only model their reaction functions, much as they do for the private sector.

Where G-7 coordination clearly has played an important role, and can continue to do so in the future, concerns management of the international trading system, contributions to multilateral lending institutions, and international debt relief.

Trade policies

The achievements of the Kennedy and Tokyo Rounds of trade negotiations have already been mentioned. In 1986 nearly 100 countries launched yet another round of trade negotiations, called the Uruguay Round, more ambitious in scope than any previous round. It was still not completed by mid-1993. It aims not only to reduce tariffs further, and to eliminate them where they are already very low, but more importantly to extend the general framework of the General Agreement on Tariffs and Trade (GATT), which covers only merchandise trade, to international trade in services, to trade-related international investment, and to protection of intellectual property. A major effort is also being made to reduce policy distortions to international trade in agricultural products and international trade in textile products.

By 1993 more than 100 countries were directly involved in these negotiations, and it has proven difficult to put together and sustain a package of agreements that appeals to all. Of special interest to developing countries in the emerging agreement is a major assault on the existing rather restrictive regime on international trade in textiles and apparel, the Multifiber Agreement (MFA), in the direction of liberalisation and ultimately phasing it out in favour of tariff protection only. Also of interest to some developing countries will be the restraint on subsidies to agricultural production and export by industrial nations, although of course some food-importing developing countries benefit from subsidiesd exports of agricultural products.

The major rounds of trade liberalisation could not have been achieved without intense negotiation and ultimate agreement among the major industrialised nations, mainly the United States and the European Community (where European negotiating authority has resided for its members since 1958), the two largest markets. The Uruguay Round was needlessly delayed and consequentially put in jeopardy by a radical (although intellectually defensible) proposal put forward in 1987 by the United States to eliminate by the year 2000 all subsidies to agricultural production (although subsidies to farmers could be maintained social reasons), and the response by the European Community to ridicule the US proposal in lieu of taking the issue of agriculture seriously. It was dislodged from this obstacle only in November 1992, by which time the negotiating authority of the US President had almost expired. President Clinton has requested a renewal of that authority from the US Congress, but it remains to be seen what price he must

pay for the renewal, and in particular whether it will require the effective exclusion of textiles and apparel from the Round. If so, this will represent a major failure of cooperation by the United States and the European Community at the expense of developing countries.

Resource transfers

Another area where cooperation among major industrial countries has been highly successful in the past, but has faltered from time to time, is in creating and promoting the multilateral development banks and the International Monetary Fund. The IMF and the International Bank for Reconstruction and Development (IBRD, now, with the addition of the IDA and IFC, called the World Bank) were created in 1946; since then an Inter-American Development Bank, an Asia Development Bank, an African Development Bank, and most recently a European Bank for Reconstruction and Development have been added to the family of multilateral development banks. A Global Environmental Fund (GEF) is being added to the responsibilities of the World Bank.

Each of these institutions required intense negotiation to establish, periodic replenishment of capital subscriptions plus appropriations for their soft loan affiliates, and continual guidance on lending policies and practices. Each has had its foibles and its controversies. But on the whole these institutions represent outstanding examples of international cooperation and collective management. By 1990, for instance, new lending by the World Bank reached \$13.6 billion (\$18 billion counting highly concessional IDA loans), and total outstanding World Bank loans were \$141 billion (of which \$45 billion were IDA loans). Outstanding loans by all multilateral development banks and their affiliates reached \$209 billion. And although they are sometimes resented, the policy conditions that attend many of these loans on the whole have been helpful both to economic stabilisation and to development.

Subscriptions to the multilateral development banks and their affiliates, and increases in IMF quotas (the most recent of which occurred in 1991-92), represent a form of explicit international burden-sharing, as do subscriptions to the United Nations and other international organisations. The G-7 undertake the bulk of the payments, accounting for nearly two-thirds in the

¹⁴ For comparison, total outstanding bilateral official long-term loans to developing (including eastern European) countries were \$316 billion, of which \$176 billion were concessional; total outstanding private long-term public and publicly guaranteed loans amounted to \$458 billion, of which \$228 billion were from commercial banks. See World Bank, "World Debt Tables 1991-92", volume 1, p. 120.

United Nations and over two-thirds in the World Bank. Joint financing of commonly-shared objectives represents a high degree of international collaboration. Such burden-sharing has been much less successful in the case of bilateral aid, which tends to be driven more by domestic political and national foreign policy considerations. Periodic attempts to set internationally agreed targets for bilateral aid have generally had little effect, although they may have played some role in aid-giving by smaller donor countries. ¹⁵

A related area of international cooperation, which started in the 1960s but became especially important during the 1980s, concerns debt rescheduling. Here, to be effective, the majority of creditors must participate; and if they are to participate, they want to be sure both that they participate on broadly equivalent terms (so some creditors are not favoured at the expense of others) and that the results of their collective efforts will be positive for the debtor country. The Paris Club conventions for rescheduling official debt go back to the mid-1960s, but have been gradually relaxed in response to the needs of the 1980s, most dramatically (at the 1988 Toronto G-7 Summit) for the least developed countries, then (at the 1990 Houston Summit) for lower middle-income countries.

Such rescheduling takes place in the framework of a macroeconomic plan for the debtor which has been worked out with the assistance of the IMF – or a surrogate, on those few instances in which the IMF could not participate (e.g. Poland was not a member in the early 1980s). This collaboration became almost routine in the 1980s; in 1985 a peak of 21 reschedulings took place under Paris Club auspices, and 18 occurred in 1990. A peak of \$24 billion was rescheduled in 1987, not counting the exceptional comprehensive reschedulings for Egypt and Poland in 1991.

A roughly comparable process, called the London Club, came to be established for rescheduling debts to commercial banks. Governments of industrial countries have been less directly involved in this process. But in the early 1980s, following the Mexican debt crisis of 1982, the IMF came to require agreement of a debtor with its creditor banks as a condition for an IMF-approved program, thus unwittingly strengthening the hands of the banks at London Club negotiations. This practice was explicitly dropped following US Secretary of Treasury Nicholas Brady's call in early 1989 for

¹⁵ In the 1970s the United Nations adopted a target for total foreign aid (including contributions to multilateral development institutions) of 0.7 per cent of GDP for each donor nation. While this target is periodically repeated in UN resolutions, the United States has never formally accepted it.

¹⁶ Agreement with creditor banks was thought to be required to complete the prospective balance of payments analysis for each country, a key analytical input for IMF programs.

debt relief by banks. Subsequently, a framework was worked out (first in the case of Mexico) for providing banks with several options for converting their outstanding claims, each of which involved some concessions to the debtor country. While the schemes were technically voluntary, the moral and financial support (mainly through multilateral institutions) by the G-7 governments created a context in which refusal to play would have been difficult for the banks, thus minimising the omni-present problem of free riders. To in the end the G-7 governments played a critical role in easing the debt burden on developing countries. But they did so much later than would have been desirable.

III. OTHER AREAS FOR POTENTIAL COOPERATION

Other obvious areas requiring cooperation among the major industrial countries concern the rules (if any) for managing exchange rates among major currencies, and such collective decisions as issuance of SDRs. These will be covered by Kenen's paper. Less obvious in a conference of macroeconomists is management of global resources such as open-water fisheries and the atmosphere, and access to non-national territory such as the seabed and Antarctica. Such areas have not been ignored by the international community, but the record of good management is slim, and in some domains major mistakes have been made.

In the mid-1970s an allocation of one quarter of the earth's surface occurred, in the form of the 200-mile coastal exclusive economic zones, an allocation that far exceeded the maximum acquisitions of territory by Nazi Germany and Imperial Japan in late 1942. The major beneficiaries were the rich countries, with their long coast lines. Ironically, this international allocation was initiated and urged by certain developing countries (first in Latin America), although of course they found ready allies within the rich countries, especially among fishermen and all those distrustful of international cooperation. The developing coastal states hoodwinked their landlocked and other geographically disadvantaged colleagues in the G-77 into supporting their position favouring coastal state acquisition, under the name of G-77 solidarity, in opposition to some form of management that assured that at least the rents from international fisheries management and continental shelf oil exploitation beyond territorial waters would be used for

¹⁷ Unlike under the so-called Baker Plan of 1985, which called on major commercial banks to lend more to developing countries, but created no framework which made this attractive to individual banks. For a discussion of the debt question, see Cohen (1992), Cooper (1992), Krueger (1993), and Sachs in Feldstein (1988).

internationally agreed purposes, presumably including foreign assistance, as proposed by the US (Nixon) Administration in 1969.¹⁸

The deep seabed was established as a "common heritage of mankind" in the Law of the Sea Treaty of 1981. But the United States declined to sign the treaty, not over that principle, but over the insistence by developing countries that an international public Enterprise actually *engage* in exploitation of the deep seabed, that private enterprise transfer proprietary technology to said Enterprise, and that dispute settlement occur in an international tribunal with a bias favouring the Enterprise. In the event, no exploitation of the seabed has taken place, despite high promise in the late 1970s, although weak mineral prices probably played a greater role than disagreement over the international regime in ensuring the non-development of this resource.

The international regimes for managing living resources outside the 200-mile zones, mainly marine mammals and tuna, have continued to be a source of controversy; Norway recently renounced the International Whaling Agreement, and Japan may soon do so, after six years of moratorium on whaling.

Happier (so far) is the regime that has been established to phase out the production and use of chlorofluorocarbons (CFCs), which have been determined to destroy high-stratospheric ozone, which is essential for absorbing solar ultraviolet radiation. In a remarkably short time, once the evidence of ozone destruction was confirmed, an international agreement was reached to phase out production, with special allowance for developing countries on timing but not on principle.¹⁹ The free rider problem is manifest in this area, and close international collaboration was necessary to reach agreement, which was made easier by the development of not-too-costly substitutes for CFCs in most of their uses.

A comparable issue, but one of infinitely greater complexity, may arise with the possibility of global climate change resulting from anthropogenic emissions of so-called greenhouse gases, substances that absorb energy at the wavelength of the earth's radiation, thus heating the atmosphere. Quantitatively the most important gas (apart from water vapour) is carbon dioxide, a waste product of oxidation, especially of hydro-carbon fuels, of which modern economies use a great deal. This issue will tax greatly the cooperative powers of the major industrial countries, not least because full

¹⁸ India denounced the proposal as a scheme to extend the global reach of the major oil firms, even though oil development would have been under coastal state supervision, with royalties going to the international community. Such was the distrust among nations that a major opportunity was missed. See Cooper in Bhagwati (1977).

¹⁹ For a description of the international negotiations in the late 1980s, see Benedick (1991).

solution requires also the active cooperation of many other countries, especially Russia, China and India; but detailed consideration of this potentially important topic is beyond the scope of this paper.²⁰

IV. CONCLUSIONS

International cooperation among major industrialised countries has not been lacking during the past four decades. It has registered some notable achievements, but it has also registered a number of deficiencies. These deficiencies have not occurred, in general, because of lack of recognition of the problem by analysts, or because of a lack of willingness by governments to cooperate with others (although the United States experienced this anti-cooperative attitude briefly during the first Reagan Administration), but rather because the problems are difficult, there are substantial differences of diagnosis, there are substantial disagreements on remedies, and (under these general circumstances) there is substantial domestic political opposition to taking costly measures without clear, generally agreed, and well-distributed benefits.

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²⁰ For a preliminary view, see Cooper in Hurrell and Kingsbury (1992). Also Cline (1992).

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