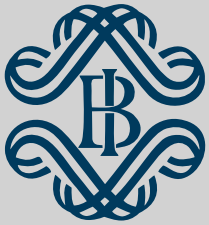
BANCA D'ITALIA

Temi di discussione

del Servizio Studi

The Experience with Economie Policy Coordination: the Tripolar and the European Dimensions

by G. Gomel, F. Saccomanni and S. Vona



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Abstract

The paper analyses the issues involved in the conduct of economic policy coordination (EPC) by sovereign countries. After a survey of the literature, the paper examines the main conditions for the feasibility of EPC in the real world. In particular the issues of hegemonic leadership, of the existence of a non unitary actor, and of the scarsity of policy instruments are addressed. Finally, the outcome of EPC among the Group of Seven countries is discussed, analysing its impact on exchange and money markets and on the systemic configuration of international monetary relations.

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Foreword (°)

International economic cooperation is almost by definition a subject that requires an inter-disciplinary approach. The academic economist, the historian, the political scientist, all have something to contribute to the analysis of phenomena where meta-economic considerations are often prevailing.

In past experiences of international economic cooperation the political authorities of individual countries have played a prominent role. Indeed cooperation has in most cases involved a political decision to establish an international institution, such as the International Monetary Fund and the World Bank or the European Economic Community (EEC). The monetary authorities on the contrary have been mostly involved in a process of exchange of information about economic developments and policies.

Since 1985 cooperation has involved to an unprecedented extent monetary authorities, and particularly central banks, in coordinated action in the monetary and exchange rate spheres. Thus, we have tried to describe the problems and the

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(°) Although the paper is a collective endeavour, Giorgio Gomel is mainly responsible for section 1, Stefano Vona for section 2 and Fabrizio Saccomanni for section 3. This is a revised and updated version of a paper presented at a Conference on "Global and Domestic Factors in International Cooperation" held in Trento on April 3-4, 1989 and organized by Istituto Affari Internazionali (Rome), Harvard University, the National Bureau of Economic Research (Cambridge, Mass.) and the National Institute for Research Advancement (Tokyo). That version was published in the proceedings of the conference in "The International Spectator", n. 3/4, 1989. The authors thank J.C. Martinez Oliva, R. Portes, S. Haggard, the participants to the Trento Conference and an anonymous referee for their valuable comments and suggestions.

achievements of economic policy coordination (EPC) as seen by practitioners of exchange rate and monetary policy coordination. Some of the views we will espouse are to be regarded as rather "traditional", others are likely to be more "controversial".

In section 1, we conduct a brief survey of the literature on policy coordination to find out whether one could draw from it conclusions that would be relevant for policy makers or could guide their choices.

In section 2, we touch upon a number of important issues that are crucial for the "feasibility" of policy coordination. We examine the question of whether or not there is a hegemon country on the international scene at large and within the EEC and how this influences the nature and the outcome of policy coordination. We also analyze whether or not countries, both in the Group of Seven (G-7) or in the European Monetary System (EMS), have or can control all the necessary instruments to carry out policy coordination.

In section 3, we try to assess the outcome of the EPC exercise from 1985 to early 1990, paying particular attention to the reactions of markets to the implementation of the coordinated strategy, both within the G-7 and the EMS. The analysis is also extended to ascertain whether tripolar EPC has had an impact on the systemic configuration of international monetary relations.

In section 4, finally, we summarize our views on the relevance of EPC, on the results it has achieved so far, and on its prospects for the future.

1. The economist's view of macroeconomic policy coordination: lessons from the literature

1.1 Introduction

Since 1985 policy makers in the major industrial countries have been engaged with differing measures of success in the practice of international macroeconomic policy coordination. Roughly at the same time professional economists began to develop theoretical and empirical research in this realm. Academic interest in policy coordination was clearly influenced by a political and intellectual environment that was becoming gradually more conducive to its practice -- at least in the areas of monetary policy and exchange market intervention -- since it was being recognized, belatedly, that the instability of the world economy and the persistence of large external imbalances and exchange rate misalignments were related to the anticooperative, "insular" philosophy prevailing in the early 1980s. That philosophy attached priority to "putting one's own house in order" in the pursuit of disinflation -- which had come to be seen as the sole legitimate domestic policy objective -- by stricter monetary and fiscal policy and claimed that such a strategy coupled with flexible exchange rates and "international laissez-faire"[1] would ensure the smooth functioning of the world economy.[2]

Academic economists were rather skeptical initially about the viability and in some instances even the desirability of coordination. Some have maintained throughout that coordination is not superior to decentralized, unilateral policy making, that it should not advance beyond information exchange and occasional policy agreements, and that "the best that each country can do for other countries is to keep its

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1. The expression was suggested by Corden (1983).

2. For a survey of the implications of such a philosophy on the institutions and procedures of international cooperation, see Saccomanni (1988).

own economy in shape" (Fischer, 1987).

In this section we outline the standard view of economic policy coordination (from here onwards EPC) as proposed by economists and discussed in the recent theoretical and empirical literature. In the process we highlight some of the obstacles to effective coordination and also mention the difficulties in applying the theoretical blueprints provided by the literature to "real-world" policy issues. These issues will be taken up in much greater detail in section 2.

1.2 The case for coordination

A useful distinction is in order between cooperation and coordination. There are several varieties of economic cooperation: they involve information exchange, consultation among authorities and possibly common assessments of the international repercussions of national policies. Cooperation is thus a rather elusive concept. Coordination imposes stricter requirements on the actors; policy makers in a number of countries have to agree on common objectives and to take joint policy decisions that differ from those they would have taken independently. In this framework cooperation may be seen as a general condition, while coordination is a more episodic occurrence, often as a response to potential or actual policy conflict[3]. Coordination becomes possible, in some cases, since all sides can improve their welfare by making policy bargains that sacrifice some domestic goals but entail a smaller loss than would be incurred in the absence of agreement.

It should be clear from the previous propositions that full-fledged coordination involves, in general, a mutual agreement on the setting of instruments, not just on the

3. On the taxonomy of varieties of cooperation, see, for instance, Kenen (1987).

formulation of policy targets[4].

Economists typically adopt what has been referred to as a "policy-optimizing" approach to coordination. The standard and simplified framework of analysis envisions each actor (country) as endowed with one instrument (monetary policy) aiming at attaining two targets, defined in terms of desired levels of real output and inflation.[5] Each government is presumed to have a well-defined objective function over its policy targets and to derive the values of its instrument so as to maximize that function. Since economies are interdependent[6], each country's targets will be a function of the instrument settings of all other countries. If policy decisions are decentralized or uncoordinated, namely each country sets its instruments taking as given the policy actions chosen by each other country, a global optimum for the world economy will not be reached. In the technical lexicon, ignoring spillover effects or externalities arising from interdependencies will result in a non cooperative equilibrium

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4. Nonetheless, it has been shown that a consistent choice of targets can replace, at least in part under some circumstances, the explicit coordination of instruments. If countries, for instance, limit their coordination to setting consistent current account targets, and take unilateral, uncoordinated action to attain them, a large part of the implied adjustment can be achieved in this way without coordinating instruments. This quite obviously simplifies the business of reaching agreements in the real world. See, on this point, Gomel, Marchese and Martinez Oliva (1989).

5. In most models of coordination each participant (country) is assumed to be of equal or similar economic size (or power). Consequently, in a game-theoretic framework, the Cournot-Nash class of models applies.

6. There is an ample literature on interdependence. The growing integration in trade of goods and services and in capital flows, the resulting cross-country transmission of impulses and the policy interactions among countries are all by now stylized facts, almost common places of economics. For a discussion, see Fischer (1987), Cooper (1985) and Horne and Masson (1988).

which will be suboptimal. Coordination "internalizes" those externalities which no single government can capture on its own by setting its policies unilaterally and achieves a globally optimal solution.

These are the basic theoretical underpinnings of the case for coordination.[7]

1.3 Obstacles to coordination: criticisms and complications of the standard model

The view presented above is not universally accepted. Advocates of decentralized policy making have been arguing that floating rates and the working of the "competitive" market mechanism will achieve optimal outcomes at the world level. Price variables -- interest and exchange rates, the general price level -- will adjust in such a way as to make national targets mutually consistent. In a sort of Darwinian process good policies will be therefore selected against bad ones[8]. The process is, in reality, rather complicated, especially when countries target the same variable -- current-account balance or exchange rates -- giving rise to international inconsistencies which manifest themselves in different ways under different exchange rate regimes.

In principle, flexible rates could render national policy targets mutually and globally compatible. The experience of the 1970s and early 1980s underscored, however, the importance of interdependence and the risks arising from lack or low degrees of cooperation even in a floating-rate

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7. The general proposition that coordination improves welfare requires at least one qualification. If each country has enough independent instruments to achieve all its targets regardless of others' actions, then there are no gains from coordination and the problem becomes the conventional one of "assignment", i.e. of properly pairing instruments and targets for each country. On this question see section 2.6 below.

8. See, for this line of reasoning, Corden (1983), Vaubel (1985), Niehans (1988).

regime. The fallacies of the standard theory of the "insulating" and "reconciling" properties of floating rates have been distinctly revealed by the large trade imbalances, exchange rate misalignments and attendant protectionist pressures of those years. In the trade arena, in particular, the threat of conflict has become at times most acute, reviving fears of a disintegration of an open world trade system. These developments have given impetus to the resumption of policy coordination in 1985.

But, in the aftermath of the breakdown in cooperation and of the financial and exchange market shocks of late 1987, pronouncements against international policy coordination and in favour of the pursuit of enlightened self-interest by sovereign nations became once again popular.

The argument was presented most forcefully by Feldstein (1987). He claimed that the United States "should continue to cooperate with other countries by exchanging information about current and future policy decisions but should recognize explicitly that Japan and Germany have the right to pursue the monetary and fiscal policies that they believe are in their own best interests". He went on advocating that the United States abandon international policy coordination and be prepared to accept a further decline of the dollar to the extent necessary to eliminate the trade deficit, while Japan and Europe should recognize the inevitability of the dollar decline and provide the required offsetting stimulus to their economies through an increase in domestic absorption.

Although the "anti-cooperative" view of international macroeconomic policy making can be criticized on a number of grounds, the numerous obstacles in the way of implementing effective policy coordination must indeed be recognized. These can be listed under three main groupings: i) disagreements about the ways in which economies work and interact; ii) constraints and costs of negotiating and enforcing agreements; iii) incentives to renege and problems of credibility.

i) Disagreements about the ways in which economies work

The standard theoretical framework outlined in section 1.2 assumes that policy makers know the "true model" of the economy and, in particular, of the transmission mechanism of economic policies to final targets. But governments do at times disagree about the functioning of the economic system.

Under such circumstances gains from cooperation are unlikely to be achieved or even recognized. It proves harder to reach agreement on a jointly-designed set of policies or, if governments do manage to reach agreement, then there is no guarantee that global welfare will actually be improved. More technically, in many instances if the "wrong" model is chosen, coordinated policies will lead to a cooperative equilibrium which is Pareto-inferior to the non-cooperative one.

Model uncertainty and disagreement constitute therefore, in principle, powerful arguments against the possibility of welfare-improving coordination. The problem is explored by Frankel and Rockett (1988) who use large multicountry models to represent two governments' views about the world economy and assume that each government uses its own model to measure the welfare effects of striking a bargain with the other[9]. Once the governments have struck a policy bargain based on their beliefs, Frankel and Rockett show that if the "true" model of the world economy is different from the agreed one, coordination can cause welfare losses in a large number of cases.

But moving away from the theory and closer to the "real world" of practical decision-making, the problem of model disagreement and the attendant obstacles to coordination

9. The authors further suppose that governments agree to coordinate their policies whenever each government's calculations lead it to believe that it will gain, given its own model and policy targets.

seem to be somewhat overstated. Frankel himself in a subsequent paper (1988) complicates the exercise by assuming that each government is uncertain about its own as well as the other's views, so both of them use a "compromise" model which is an average of the policy multipliers derived from the econometric models. Then, as Kenen (1988) suggests, prudential and reputational considerations come to the fore and help reach suitable agreements. In fact, under model uncertainty, each government will (i) assess how coordination would affect its welfare on the assumption that the other is using the right model and refrain from any bargain unless it can expect to gain under both models and (ii) have to persuade its partner that its own policy proposals will improve the partner's welfare under both models.

A different, but suggestive approximation to the "real world", is offered by some recent literature by assuming that agents learn about the model of the economy. In the absence of model learning, it is argued that coordination may certainly reduce welfare and lead to dynamic instability of the economy if the wrong model is used to design policies. But if learning is allowed, as shown by Masson and Ghosh (1988), there are always gains from coordination.

ii) Constraints and costs of agreements

These include a wide range of political and institutional constraints. In general, it can be argued that the domestic political process is so complicated that international requirements cannot be expected to be more than a small factor in policy making. Only at times of "crisis" will a common interest in coordinated action be more clearly recognized, thus permitting policy agreements to be reached. In addition, since cooperation is a "public good", any country participating in it will tend to be more conscious of the costs to itself -- the perceived loss of sovereignty -- than

of the prospective benefits.[10]

In addition, coordination is costly in terms of the negotiating process and time lags involved in reaching agreement. Further efforts are needed to enforce and monitor their implementation. These costs of coordination are an increasing function of the number of participants and the jurisdictional divisions within governments[11]. According to some, the costs of negotiating agreements across countries increase with the range of issues being considered. Others[12] retort that the gains from coordination might prove larger if the scope were broadened to other domains -- trade, defense or foreign policy -- because the probability of successful policy bargains and welfare improvements would thus increase.

iii) Reneging and credibility

The problem of reneging or cheating has attracted large attention in the game-theoretic literature on policy coordination. It relates to the wider issue of "time inconsistency" of policies, i.e. the fact that policy makers may find it advantageous to change their plans in the future departing from their policy commitments if they deem they can obtain macroeconomic benefits from such course of action. Governments may have an incentive to make international agree-

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10. See Dini (1988).

11. Finance Ministers can negotiate agreements, but fiscal policy is decided upon by national parliaments and monetary policy is the responsibility of independent central banks.

12. See Putnam and Bayne (1984), Putnam and Henning (1986). The usual reference on this point is the 1978 Bonn Economic Summit which was not concerned solely with macropolicies: the actual agreement was typically a cross-issue bargain in which commitments to fiscal expansion by Japan and Germany were exchanged for a commitment by the United States to combat inflation and control energy prices.

ments, for instance to expand domestic demand in each individual country, but then to "renege" on their end of the policy bargain, though benefitting from the actions of the other players. The incentive toward such "free-rider's" behaviour might be a serious obstacle to cooperative agreements, unless there are penalties or credible threats of retaliation attached to non-compliance. The prescription would then be that governments confine themselves to time-consistent policies, thus resisting any temptation to cheat.[13]

Others suggest that the advantages of preserving reputation largely outweigh the gains to be reaped by cheating. "The governments most likely to cooperate in macroeconomic matters are governments that also cooperate in other domains, economic and political. They will not lightly jeopardize their ability to do so, presently or in the future, by violating macroeconomic agreements".[14]

Another point which is of keen interest to political scientists, in particular, is related to governments' inability to bind their successors and the implications for cooperative behavior that follow from it. A new government coming to power may be tempted to violate inherited commitments simply because it perceives those to be incompatible with its welfare function -- different from that of its predecessor.

There are no easy solutions to such a problem. One popular suggestion has to do with rule-based systems of coordination: simple, explicit, automatic rules -- such as McKinnon's G-3 blueprint for monetary coordination or Williamson and Miller's extended target zone scheme -- would

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13. See, for instance, Oudiz and Sachs (1985).

14. Kenen (1987), page 33.

act as discipline on the actions of governments.[15]

An entirely different avenue -- one probably favored by political scientists -- would be to assume that governments have an interest in establishing a reputation for reliability on economic as well as on other matters of policy acting together in the pursuit of common goals.[16]

1.4 Measuring the gains from coordination

Potential gains from coordination have been estimated using large econometric multicountry models. These gains have been found to be consistently small across empirical studies: both in a static set-up, such as that of Oudiz and Sachs (1984) and of Canzoneri and Minford (1986), and in dynamic settings (Hughes Hallett, 1987).[17]

This general result is in stark contrast with the theoretical case for expecting significant welfare improvements from the exercise of coordination. There are, however, grounds for some skepticism over these "pessimistic" findings.

First, the estimates crucially depend on the way policy makers' welfare functions are specified. The gains

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15. McKinnon suggested that money growth rates be coordinated among the United Stetes, Japan and Germany to keep exchange rates stable. The "target zone" proposal would require countries to announce wide bands within which the exchange rate could move around equilibrium levels steered by monetary policy; fiscal policy should be used to manage nominal demand growth.

16. This political "philosophy" can be detected in a number of official statements, most clearly in the Economic Summit declarations.

17. According to Oudiz and Sachs' calculations, the gains would have averaged 0.2 per cent of GNP per year for the United States and Germany and 0.7 for Japan in 1984-86. Welfare gains would increase if the OECD area as a whole or the major EEC countries were made to cooperate. According to Hughes Hallet's findings, the gains would be slightly bigger and asymmetrically distributed, most of them accruing to Europe.

increase considerably if, for instance, exchange rates or policy instruments are included as relevant arguments alongside with growth, inflation and the current balance, since there are costs to changing them.[18] More importantly, the estimates are sensitive to the weights attached to individual targets; since these weights cannot be measured unless the policy makers' aims are fully known,[19] their imputed values are largely subjective.

Second, gains are measured only in terms of macroeconomic performance while they may extend beyond that realm into the trade and other arenas. The case for coordination would be made stronger if it were realized, for instance, that trade and macropolicies cannot be divorced since the viability of an open trading system depends on maintaining a reasonable degree of cooperation and exchange rate stability. For instance, protectionist tendencies might have been much more powerful worldwide if the United States had been following Feldstein's prescription and allowing an unconstrained fall of the dollar.

Lastly, gains may be small either because the degree of interdependence among participants is low or because the number of countries acting cooperatively is limited. On the first point, the evidence from econometric models tends to show that the size of spillovers and policy interactions is not large.[20] When this increases, the benefits from coordination may prove larger. This is true of the EC whose trade is mostly within herself and where there is an EMS as a zone of currency stability to underpin the intra-area trade. Similar-

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18. See Holtham and Hughes Hallett (1987).

19. The solution proposed by Oudiz and Sachs (1984) to overcome this problem -- making the model "reveal the preferences" of governments, or the welfare weights -- has been criticized as tautological by Martinez Oliva (1988).

20. See, for instance, Fischer (1987) for interactions between the US and the rest of the OECD area.

ly, Japan's high interdependence with the United States allows for greater benefits from reaching agreements between the two, hence stronger incentives to cooperate.

On the latter point, one should, in theory, think of cooperative scenarios involving a larger number of actors, outside the Group of Seven or even the industrial countries as a whole. This would bring up a separate set of issues concerned with macroeconomic linkages between the OECD (the North) and the LDCs (the South) and with policies relating to trade and debt. It would seem to us, however, that such an avenue would encounter severe institutional and operational difficulties.

2. Problems of economic policy coordination in the real world: the tripolar and the European dimensions

2.1 Introduction

In this section the focus of the analysis is shifted from theoretical issues to problems of crucial importance for the functioning of the EPC exercise in the real world.

The first one concerns the existence of a leading country, that is, the question of "hegemony". In fact, the solutions offered by the theoretical models of EPC surveyed in section 1 crucially depend on the hypotheses concerning the relative weights of the countries involved in the exercise.

The second issue is that of the number of policy intruments which have to be coordinated in relation to the number of objectives to be achieved. The first section of this paper has shown that there are benefits from coordinating domestic policies when instruments are fewer than objectives. Yet, in practice, as we shall show in section 3, the situation is viable only to the extent that the gap between the latter and the former is such as not to cause conflicts between objectives.

2.2 "Hegemony" and the problem of a non-unitary actor

In the analysis of EPC recourse is usually made to the simplifying device of describing the industrial world as a tripolar entity consisting of the United States, Japan and Europe.

In this context, the familiar issues of "hegemony" and of whether there is a non-unitary actor are particularly relevant. In fact, when a situation of lack of hegemony prevails, and the countries interact as oligopolistic agents with different national preferences and objectives, the existence of a large number of actors can significantly undermine the possibility both of achieving definite theoretical solutions and, especially, of reaching an agreement on

EPC in the real world.[21]

Moreover, even when there are only a few participants in EPC, the existence of a "non-unitary actor" is all the more worrying, particularly if relationships among the countries concerned are not of the "leader-followers" type. Indeed, when a leading country dominates the scene, the larger the number of the others, the more likely they are to be small in comparison to the leader; consequently they cannot pursue independent policy objectives but "have to follow" the leading country's moves.

In less simplistic terms, the issue here is that of the supply of the public good of monetary stability. A clear presentation of the problem, which has been extensively treated in the literature, can be found in Padoan (1986). Accordingly, efficiency in the production of public goods by a group of countries "is inversely correlated with the number of the members of the group as the propensity to take a free ride will increase". However, "the public good will be supplied, although in lower than optimal amounts, if one of the group members is substantially larger than the others" (page 2). Moreover, the possibility of free riding is much reduced when the area is organized into a monetary arrangement with clearly defined rules.

The literature on this topic is extremely abundant. As a consequence, we limited ourselves to the discussion of our point of view.

2.2.1 Is there a hegemonic leader any longer?

It is a widely accepted view since the Bretton Woods system collapsed in 1971 that the world economy has been left without a leading country. Lack of hegemony has made it impos-

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21. The conditions which allow for EPC in a situation characterized by lack of hegemony have been extensively examined by Axelrod and Keohane (1986).

sible to restore a system of rules and obligations around which international economic relations could be organized.

Although we recognize that this picture has elements of truth, its relevance has to be assessed by using a precise definition of leadership. This, in turn, requires specific criteria for singling out the main features of a leading country. Among the different approaches available in the literature (Strange, 1982; Keohane, 1984; Padoa-Schioppa and Papadia, 1984; Padoan, 1986) we have adopted a criterion which is more similar to the one proposed by the last author, in that we intend to take into account both real and financial variables to define the "degree of power" of a country[22]

The issue to be addressed here, surely still open to debate, is that of the hegemonic power of the United States. On the one hand, when real variables are considered, such as GDP or the share in world trade, the US economy's size relative to the other major industrial countries has continuously shrunk over the last two or three decades. In 1989 Japan's GNP, when expressed at current prices and exchange rates, was just over half of that of the United States; the EEC four big countries' overall GDP was about 1/2 of that of the US. The corresponding figures in 1960 were: less than 1/10 and less than half respectively.[23]

On the other hand, the impression one gains from financial variables is quite different. In this area the dollar is still playing the dominant role: it is the leading reserve currency -- almost 75 per cent of gross reserves in convertible currencies held by the G-10 countries and

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22. On the concurrence of both trade and financial considerations in determining the role of a country in the IMS, see, for instance, Krugman (1984).

23. This impression is confirmed if trade data are used. The export shares of the United States, Japan and the four big European countries in the OECD were, respectively, 24.0, 4.3 and 39.0 per cent in 1960 and 17.0, 12.8 and 38.1 per cent in 1989.

Switzerland are held in dollars -- as well as that in which most international trade flows are invoiced and settled. Moreover, primary commodities and oil are priced in dollars. Finally, and most importantly from our point of view, a very large share of private international financial assets is still denominated in dollars, as the dollar market is the deepest, most liquid and diversified.

In weighting the two criteria, it must be noted that the most profound transformation undergone by the world economy during the last 15 years has surely been the development of large and sophisticated national and international financial markets. Moreover, the strengthening of economic interrelations among industrial countries which took place in the last two decades has been increasingly in the form of financial integration. Hence, by combining a set of real and financial variables, the conclusion is reached that the United States still plays a dominant role in the international monetary system (from now onwards, IMS) (Strange, 1982; Gomel, 1990).

The experience of the last decade also provides further support to the idea that the US position in the IMS is unique. The United States has been, in fact, the only country able to pursue, for a long period, its own domestic objectives without paying attention to the policy course of other countries.[24] Of course, since in the first half of the eighties the size of the US economy was not much larger than that of the other major industrial countries and its degree of openness had become sizeable, the consequences of this inward-looking approach were considerable also for the United States. They manifested themselves in the accumulation of huge current account deficits. Nonetheless, the United States has been able

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24. For example, as early as 1976, the United States was able to introduce in the Amendment of the IMF Articles of Agreement the principle of "put your house in order", as a substitute for international cooperation (see section 1 and Saccomanni, 1988).

to sustain such a situation for long, mainly because of its unique position of issuing liabilities in its own currency to finance the external deficit and, more recently, to induce the other countries to cooperate to correct it.

The accumulation of external debt by the country which issues the reserve currency has no historical antecedents. The United States has been financing with liabilities denominated in its own currency the acquisition of real wealth from the rest of the world while the dollar was substantially depreciating. Consequently, non-residents have suffered capital losses on their dollar assets which have not been compensated by the higher level of US interest rates in relation to those prevailing abroad. This notwithstanding, foreign investors have not significantly changed the currency composition of their portfolios. In a sense, the United States has been able to increase the power of seigniorage over the world economy.[25]

Finally, the United States, as the recent experience of EPC shows (see section 3.3), is the only country able to opt out of the EPC process when it deems non-participation appropriate for internal considerations. The other major countries are much more constrained by external factors and, when taken in isolation, are unable to follow an independent policy course for long or to shift the focus of the EPC process on objectives which are "country-specific".

All in all, the IMS is clearly asymmetric, with one country being the dominant player. However, the leading country, i.e. the United States, can no longer exercise full hegemonic power. As a consequence, the present system is similar neither to that which in the theoretical models is approximated by Stakelberg games, nor to that described by a Cournot-Nash approach. The results, indeed not entirely

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25. In a long-run perspective, these developments may represent an element of weakness, given the impending deterioration of the quality of the reserve currency (Minsky, 1979).

robust, that economists achieve through their elegant models of EPC need thus be applied to the real world with great caution.

2.2.2 Is Europe a unitary actor?

Let us now address the issue of the EEC as a non-unitary actor. Here again, at this lower, regional, level of EPC, the problem to be examined first is that of hegemony.

According to the same criteria adopted in the preceding section, Germany is not significantly larger than the other three major EEC countries in terms of GDP/GNP, but it is much more important in terms of its role in international trade.[26]

The Deutsche mark leadership in the EMS is not all-embracing. At present, the US dollar is still the dominant currency in Community countries especially in trade payments and invoicing, while, in perspective, the ECU seems to be more generally acceptable as the European currency. Nonetheless, the DM has increasingly become the most widely used currency in intervention in the ERM area (see, for instance, Mastropasqua, Micossi and Rinaldi, 1988). The DM is undisputably the only currency of the exchange rate mechanism (ERM) with an international role. In fact, the ERM is linked to the rest of the IMS through the US$/DM relation. This has led several authors (Basevi et al., 1983; Micossi and Padoa-Schioppa, 1984; Kaufman, 1985) to consider the ERM as organized in a "currency pyramid".

However, while Germany's predominance in the monetary sphere is undoubtedly remarkable, there are other dimensions of the EEC in which the role of Germany is less central: for instance, in the field of agricultural policy, in

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26. In 1989, Germany's GNP exceeded by about 20 per cent that of the next largest country (France), while its exports of goods were about 90 per cent higher than those of the second most important EEC country (France again).

the importance of financial centers and in defence.[27]

In the end, a correct assessment of the issue of the EEC as a non-unitary actor highly depends upon the view of the nature and of the functioning of the EMS. Formally, the EMS is solely an agreement aiming at stabilizing bilateral nominal exchange rates of member countries. In this respect, its success is undeniable.[28] The agreement does not provide for rules or prescriptions on how these countries would have to pursue such a goal, namely which policy instruments they have to rely upon and the ways for coordinating such instruments. Certainly, no member country accepted the idea of giving up its independence in setting its monetary policy when adhered to the ERM. Explicit devices for maintaining a certain degree of autonomy were capital controls, both in Italy and France, the wide band of fluctuation of the lira and the dual currency regime in Belgium. Moreover, there was no rule which imposed the adoption, by high-inflation countries, of what has been called the "strong currency option", i.e. the undertaking not to compensate with nominal exchange rate depreciations for inflation differentials, thus allowing the real exchange rate to appreciate.[29]

In these circumstances, what really subjected member countries' monetary policies to that of Germany was the widely accepted objective of reducing inflation and the commonly shared view that the Deutsche Bundesbank had a comparative advantage on this front. The other members of the system, in fact, accepted the German idea that convergence of inflation would have to be guided by the best performer, i.e. the target would have to be the lowest and not the average inflation

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27. On the peculiar nature of Germany's leadership in the ERM, see Tsoukalis (1988).

28. On this issue see Masera (1987), in particular Chapter IV, and Ungerer (1986).

29. This policy has in fact been followed only by Italy and Denmark (Vona, 1990).

rate.

Germany has thus come to play the role of the "n^{th} country" in setting, through the exchange rate constraint, the monetary policy of the entire area, because the other countries found it convenient that the public good of monetary stability be provided by the Deutsche Bundesbank. Surely, there is a widespread consensus among the authorities that the EMS has been instrumental in curbing inflation.[30] Beyond providing the "monetary anchor" to the system, the Bundesbank has also been the dominant player in regulating the position of the entire set of the EMS exchange rates vis-à-vis the dollar.[31] All in all, German monetary leadership has been equally based both on "country-specific endowments" (the DM role as an international currency, but especially the Bundesbank's reputation) and on the common acceptance by the other members of the objective of reducing inflation as the top priority.[32]

Germany's leadership, which for most of the EMS period has been the crucial ingredient of the monetary

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30. In particular, in France there was a clear link between ERM membership and the turn-around in economic policy in 1983, from growth-fostering policies towards anti-inflation policies, and in Italy the exchange rate constraint has been used to tighten monetary policy and, eventually, to achieve a higher degree of independence for the Central Bank. This was institutionally reflected in the so-called "divorce" between the Bank of Italy and the Treasury in 1981, whereby the former was relieved from the (implicit) obligation of purchasing all residual T-Bills which were not placed in the market.

31. The question has been raised of which advantages Germany achieved in participating in the ERM. We believe that both theoretical (Melitz, 1988) and empirical (Vona and Bini Smaghi, 1988) studies show that Germany's advantage has to be found in the area of economic growth. Indeed, Germany's slower growth of domestic demand vis-à-vis most of its ERM partners has been largely compensated by the trade surpluses obtained in the area.

32. On the source of the monetary leadership of Germany in the ERM, see Thygesen and Gros (1987).

organization of this area, has thus been the result of a contingent situation which is now changing to a significant degree. There are three important reasons supporting this view. First, inflation differentials in the ERM have been considerably reduced. Second, the abolition of all foreign exchange controls in France and Italy has led to a situation where the effects of divergent monetary policies are felt also by the country at the centre of the system, since exchange rates are increasingly fixed. Third, it is highly doubtful whether in the realization of economic and monetary union (EMU) in the Communty, a process now firmly underway, the member countries will accept the DM, rather than the ECU, as the currency of the area.

Since the developments mentioned above tend to reduce the central role of the DM, the system is moving toward a situation where oligopolistic interactions, rather than leader-followers relationships, are becoming predominant. In this new setting the economist's prescription clearly points to strengthening EPC. Nonetheless, there are obstacles in the achievement of this objective.

Firstly, the excessive reliance of Germany on trade with the ERM partners for generating its increasing external surplus[33] is indeed becoming an obstacle for EPC in the area. The lesson drawn from the experience of other monetary regimes

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33. The source of the German trade surplus in the ERM area is mainly to be found in its low rate of growth of domestic demand (see Vona and Bini Smaghi, 1988 and 1989). The explanation for the low growth rate of Germany during most of the eighties, i.e. shortage of labour force, beside being implausible in a world of factor mobility (a characteristic of the European Single Market), does not represent an answer to the problem under discussion. In fact, a given, moderate, rate of GNP growth may be attained through a different contribution from domestic demand and the foreign balance. In other words, the problem is basically represented by the "export-led" growth model of the German economy, which is the mirror image of its structural excess of savings over investment.

in the past (the gold standard and the Bretton Woods systems) is indeed that they were centered upon a leading country running a structural external deficit, thus providing the needed liquidity to the system as a whole (De Cecco, 1988).

There is moreover still some resistance in Germany to pursue a common EMS policy vis-à-vis the dollar. Furthermore, the United Kingdom does not participate in the ERM and, more generally, in efforts to coordinate macro-economic policies in Europe, thus limiting the influence of the European pole in EPC, especially given the still relevant international role of the pound sterling and the importance of London as a major financial centre.

Finally, an impediment is represented by the reluctance to coordinate other policies, in particular fiscal policy. "Fiscal consolidation" has been pursued by almost all the EEC countries in the last five years.[34] Fiscal policy has therefore lost its status of an instrument for policy coordination; convergence on low budget deficits has, instead, become a target in itself. This issue will be discussed at length in section 2.3.

The problems mentioned above and the transformations under way are likely to require a deep change in the present setting of the EMS. A comprehensive discussion of the issues and precise policy recommendations were presented in the Delors Report on Economic and Monetary Union (EMU) in Europe. The process of the construction of the EMU is now in motion:

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34. Germany's general government financial balance (GGFB) ranged between -1.1 and -2.1 per cent of GNP between 1985 and 1989. France's GGFB, in relation to GDP, has been halved in the same period. The UK's GGFB turned into surplus in 1988, from a deficit of about 3 per cent in 1985. In Italy, the GGFB was in deficit for much larger amounts than the EEC average; nonetheless, it diminished by some 2 percentage points of GDP between 1985 and 1989. Significant progress towards fiscal consolidation was achieved by Belgium, Denmark and, to a lesser extent, the Netherlands. A critical view of the strategy of fiscal consolidation followed by the EMS countries may be found in Katseli (1988).

it will provide a strong push to further strengthening monetary cooperation in the ERM. However, any judgment on the length of the process is premature at this stage.

2.3 The scarcity of policy instruments

The other important element which makes it difficult to apply the conclusions of models of EPC to the actual international situation will now be considered: that is, the number of policy instruments and objectives. According to theoretical models, a situation of scarcity of instruments relative to objectives is precisely one which must be dealt with through EPC. However, in the practical experience of the eighties, the lack of instruments has given rise to conflicts or dilemmas even when there was considerable momentum for EPC. For instance, tripolar and EMS coordination geared to maintaining exchange rates within agreed zones may be carried out through monetary policy alone to the extent that this is consistent with its primary goal, i.e. price stability. This is, therefore, a source of potential conflict between national and international objectives. Moreover, since exchange rates are not entirely determined in the financial and monetary spheres, but also respond to real variables, coordination of monetary policies alone may not be sufficient to drive them towards the agreed levels. On the other hand, in the eighties fiscal policy has been losing its role as a tool for managing the economy. Active fiscal policy aiming at smoothing cyclical fluctuations and/or at modifying the path of domestic demand has increasingly been considered inappropriate.

The reasons for this striking change in the attitude towards the role of fiscal policy are to be found both in the prevalence of new-classical over neo-Keynesian economists within the academic profession and in the success of ideologies opposed to government intervention in the economy.

Among economists, the view became popular that there was no trade-off between output and inflation, not even in the

short run, because output was entirely supply-determined. Consequently, fiscal activism was useless for raising output and simply led to higher inflation. Meanwhile, politicians were increasingly attracted to the idea that the role of the state in the economy had to be reduced to leave room for private entrepreneurial initiatives, the only ones that could be considered "productive". In particular, these views were advocated by the governments of Mrs. Thatcher and of Mr. Reagan.[35]

There were also two other important considerations behind the opposition to governments' economic action: the immoderate use of fiscal policies in the past and the negative effects of the coordinated fiscal package agreed on at the 1978 Bonn Summit.[36]

Without claiming to exhaust this complex subject, it must be stressed that, at present, "fiscal consolidation" is the prevailing approach. Accordingly, the rule to be followed is that of achieving and maintaining a balanced budget over the medium term and, at the same time, gradually reducing both taxes and expenditures. In practice, this rule, whose analytical foundations are questionable, becomes a way to achieve the desired objective of reducing the size of the public sector.

Whatever the reason for the adoption of such policy, it is clear that fiscal activism is inconsistent with it: in other words, pressure for demand management through fiscal policy has to be opposed. Consequently, policy makers are in

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35. The implementation of this principle has, however, been strictly successful only in the case of the United Kingdom, where the budget is at present running a significant surplus. The Reagan Administration's policy paradoxically led to a budget deficit which was, and still is, very high in relation to the low level of US private savings.

36. It remains to be seen whether the manoeuvre was unsuccessful because of its inappropriate objective of reflating the world economy, or because it was involuntarily "untimely" since it was implemented a few months before the second oil shock.

fact left with only one instrument, i.e. monetary policy.[37]

Fiscal policy has been replaced, in the minds of policy makers, by a new instrument, i.e. structural policies. This issue is usually treated under the heading of "structural reforms": it is concisely, but effectively presented, for instance, in OECD (1988, page xiii). The basic philosophy of the approach is that government action should aim at the removal of impediments to competition and at the promotion of market flexibility and efficiency in the public sector as an "essential element of the strategy to sustain non-inflationary growth".[38]

Undoubtedly, the whole "structural reforms" issue has a solidly grounded basis in the idea that microeconomic factors have an important influence on macroeconomic performance. Nonetheless, this matter is far from being settled theoretically; it is even more unclear empirically. One has, therefore, to be very cautious in drawing conclusions about the precise impact of structural reforms on macroeconomic performance. This view is all the more evident when one tries to assess the role of such reforms on EPC. For instance, if EPC is concerned with the correction of payments imbalances, and structural reforms are viewed as a means to increase the overall efficiency of an economy, their effects may run counter to the stated goals. In fact, structural reforms would likely serve the purpose of reducing the US deficit but, at the same time, might further increase the Japanese and German

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37. In fact, at present, fiscal policy has still some role to play in demand management for those countries, like the US and Italy, which have "excessively large" budget deficits, and must check expenditure as a means to reduce both the current account deficit and inflationary pressures. All in all, the present view of both national authorities and international organizations on fiscal policy may be described in terms of asymmetry of the instrument: it can be used actively for restrictive purposes only.

38. Readers wishing to analyze this subject in depth, are referred to OECD (1987).

surpluses.

In sum, structural reforms cannot be viewed as a substitute for macroeconomic policy for a number of reasons, not the least of which is the significant lag between the inception of the reforms and their results, a feature which makes them particularly unsuitable for EPC. This, in conjuction with the prevailing negative attitude towards budgetary activism, leaves EPC only with monetary policy as an effective instrument.

3. The implementation of tripolar policy coordination in the Group of Seven: an assessment

3.1 Introduction

In this section an attempt is made to evaluate the outcome of EPC among the major industrial countries from the G-5 meeting of September 1985 at the Plaza Hotel to the G-7 meeting of April 1990, essentially by reviewing the behaviour of monetary and financial markets in response to the coordination strategy. The analysis shows that the distance between theoretical models of EPC and its practical implementation in the last five years is quite significant. A major difference, to be noted at the outset, is that G-7 EPC has relied heavily on sterilized exchange market interventions, while models of EPC do not regard them as an independent policy instrument. Those models look at interventions only to the extent that their domestic monetary effects are not sterilized; in these cases however, interventions are treated as a modality of conducting monetary policy and not as a separate policy instrument. A second major difference is that the reliance on one policy instrument (i.e. monetary policy) to achieve two objectives (external and internal balance) has in fact created, contrary to the assumptions of the theoretical approach to EPC, policy dilemmas and conflicts between objectives.

The main objective of the G-7 strategy was to reduce payments disequilibria among the leading three poles of the industrial world (see Table 1) without jeopardizing non-inflationary growth and rekindling protectionism. Three phases can be distinguished:

(i) a first phase, from September 1985 to February 1987, centered on correcting the overvaluation of the US dollar;

(ii) a second phase, characterized by the attempt to halt the downward movement of the dollar; it begins with the Louvre Accord in February 1987 and ends roughly at the Toronto Summit of June 1988;

Table 1

G-7 COUNTRIES: BALANCE OF PAYMENTS ON CURRENT ACCOUNT (including official transfers)

(in billions of US dollars)

	1982	1983	1984	1985	1986	1987	1988	1989	1990 (*)
Canada	2.3	2.5	2.1	-1.5	-7.6	-7.1	-8.4	-16.6	-20.2
United States	-7.0	-44.3	-104.2	-112.7	-133.3	-143.7	-126.5	-106.0	-113.3
Japan	6.9	20.8	35.0	49.2	85.8	87.0	79.6	57.2	57.4
France	-12.1	-4.7	-0.8	-0.3	2.4	-4.4	-3.6	-3.3	-3.9
Germany, Fed. Rep. of	5.1	5.3	9.9	16.6	39.4	45.2	48.6	52.8	62.3
Italy	-6.2	1.5	-2.5	-3.7	2.6	-1.5	-5.2	-10.9	-11.5
United Kingdom	8.0	5.7	2.5	4.2	0.2	-6.1	-26.3	-34.2	-25.7

(*) Forecast.

Source: IMF, World Economic Outlook, May 1990.

(iii) a third phase, which started in mid-1988 and is still continuing at this writing (May 1990), in which exchange rates are relatively stable but there is a slowdown of the process of external adjustment.

3.2 EPC in phase 1 (September 1985-February 1987)

Although the official birth date of the tripolar strategy is that of the meeting at the Plaza Hotel in New York on September 22, 1985, the issue of how to cope with the US current account deficit and with the overshooting of the dollar had been discussed at G-7 Summits since June 1983 (Williamsburg). On that occasion continental European countries had forcefully argued that coordinated interventions in exchange markets might be the best way to correct the overvaluation of the dollar. The United States, on the other hand, had maintained that it would be pointless to resist market forces. Such conviction, derived from both theoretical and empirical analysis,[39] had been a main factor behind the attitude of "benign neglect" in respect to exchange rate and balance of payments developments adopted by the Reagan Administration. In fact, that conclusion had been confirmed in the literature only in the case of a country intervening alone to alter the exchange rate of its currency. As it turned out, the comprehensive study initiated at the Williamsburg Summit[40] on the impact of interventions confirmed the ineffectiveness of isolated sterilized intervention but could not exclude the possibility that coordinated intervention might be effective.

The events that preceded the start of EPC in phase 1 seem to corroborate such hypothesis. Concerted dollar sales were aggressively conducted by the Bundesbank, the Banque de France, the Banca d'Italia and other European central banks on

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39. See, for example, Henderson and Sampson (1983).

40. Group of Seven Working Group (1983).

February 26, 1985. The dollar sales began when the dollar was at DM 3.47 and continued throughout February 26 and 27. The dollar plunged against all European currencies and reached the level of DM 3.09 at the end of March (see Figure 1).[41] The impact of intervention began to fade away during the Summer months and the dollar strengthened again, as markets realized that the United States, Europe and Japan still disagreed on the need for a further exchange rate adjustment, and for a change in the stance of macroeconomic policies to back a new set of exchange rates.

Against this background a strategy of policy coordination was agreed upon by the G-5 at the Plaza Meeting. The United States and Japan joined the European countries in committing themselves openly to the objective of adjusting payments disequilibria through a depreciation of the dollar and appropriately supportive macroeconomic policies. The main ingredient of the EPC agreed at the Plaza was a coordination of exchange market interventions. The market reacted positively as it interpreted the Plaza as a major policy shift by the US Administration; the impact of interventions was compounded by the consensus of the other G-7 countries and of the member of the European Community, who actively took part in the coordinated action together with Switzerland and Sweden (see Table 2). The decline of the dollar was also fostered in the ensuing months by the relaxation of monetary policy in the United States, although similar moves by Germany and Japan limited the reduction of the positive interest rate differential on dollar assets (see Figures 2 and 3). By mid-1986 the fall of the dollar had reached proportions that were regarded as

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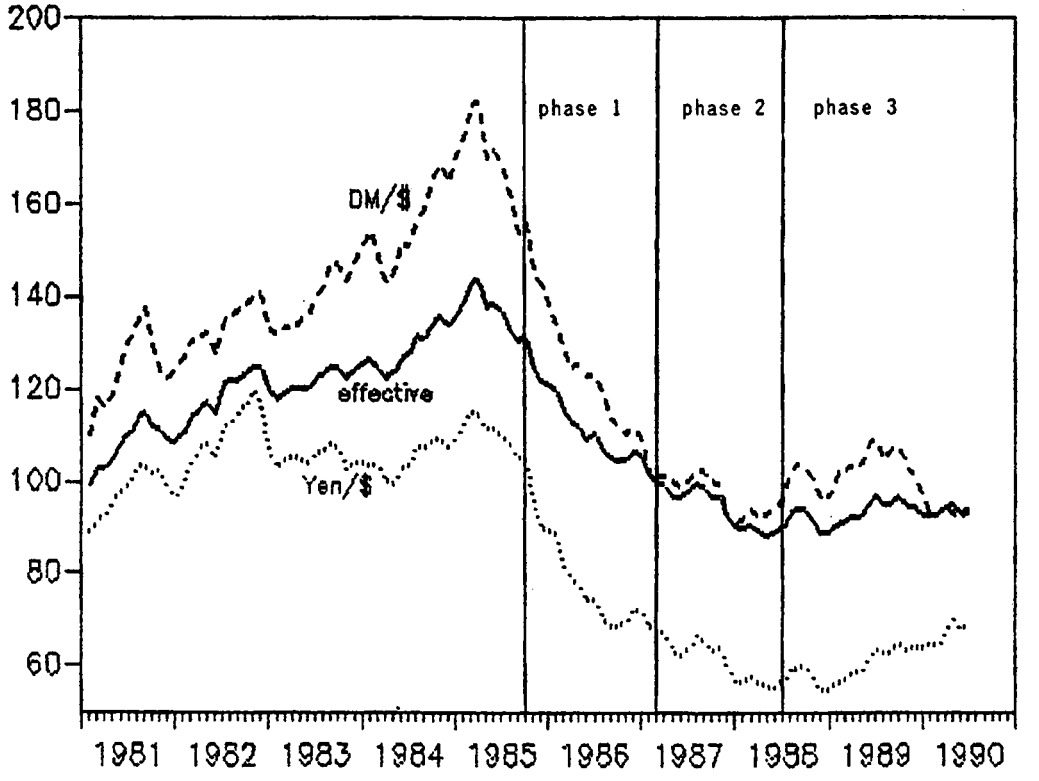
41. The argument was made at that time that the market would have changed its sentiment about the dollar even in the absence of interventions. This view is not supported by facts: indeed the rise of the dollar had been accelerating since the beginning of the year and on the eve of the coordinated interventions by the European central banks most of the "chartists" were projecting a dollar/mark rate of DM 4.00.

Exchange rate of the US dollar
(indices, 1980=100)

Figure 1



Source: Bank of Italy

Table 2

FOREIGN EXCHANGE MARKET INTERVENTIONS BY G-7 CENTRAL BANKS (1)

(billions of US dollars)

Phase 1	
20.9.1985-30.3.1986	-17.0 (*)
1.4.1986-22.2.1987	+29.8
Phase 2	
23.2.1987-30.6.1988	+84.2 (*)
Phase 3	
1.7.1988-30.9.1989	-61.1
1.10.1989-30.4.1990	-31.1 (*)

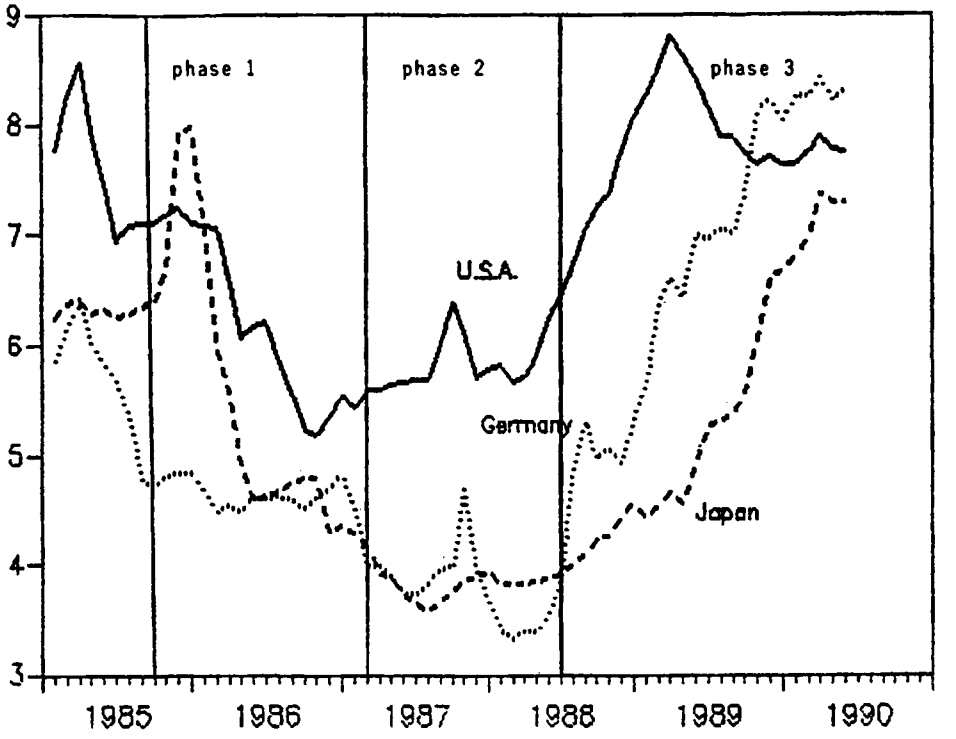
Source: Elaboration by Banca d'Italia of data from official sources.

(1) The data refer to intervention in the markets for US dollars against national currencies. A minus sign indicates net sales of US dollars; a plus sign net purchases of US dollars.

(*) Signifies periods in which interventions were generally coordinated and involved all G-7 countries.

Figure 2

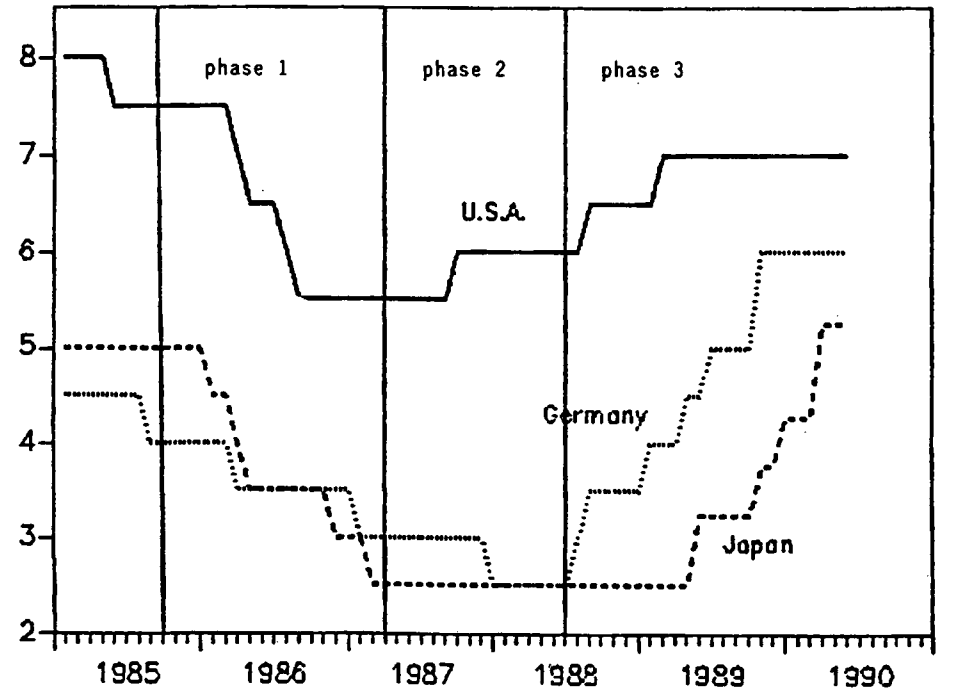
SHORT-TERM NOMINAL INTEREST RATES



Source: B.I.S.

Figure 3

OFFICIAL INTEREST RATES



Source: B.I.S.

excessive by some G-7 countries and substantial purchases of dollars were conducted without any formal coordination by individual countries to limit the appreciation of their currencies.

3.3 EPC in phase 2 (February 1987-June 1988)

As the dollar continued to fall throughout 1986 despite considerable supporting interventions, the G-7 agreed to reconsider the EPC strategy at a meeting held in Paris at the Louvre on February 22, 1987.

The Louvre Accord implied a trade-off between the three major countries. The United States would cooperate to stabilize the dollar, provided that Germany and Japan would take measures to reflate their economies. This was expected to reduce significantly the US trade deficit in time for the Presidential elections of November 1988, without forcing the Administration to introduce import restrictions or to increase taxes to curb the budget deficit. Germany and Japan were worried that a further appreciation of their currencies would put an excessive burden on their export sectors and generate a recession. Other European countries in the G-7 were also worried about the inflationary implications of an EMS realignment that might result from the strengthening of the Deutsche mark. The crucial feature of EPC in this phase is that there was no conflict initially between the domestic objectives of the main actors and the requirements of the international adjustment process.

During phase 2 the dollar was stabilized vis-à-vis the Deutsche mark and the yen as envisaged in the EPC strategy (see Figure 1). Moreover, some important progress was achieved between 1987 and 1988 as the US current account deficit began to decline (see Table 1). The main criticism of EPC in phase 2 is that it merely shifted instability from exchange to financial markets, thus contributing to the stock market crash of October 1987. Such criticism was generally voiced soon

after the crash itself, in line with a fashion that rewards immediacy over accuracy.[42]

In retrospect it must be recognized that all countries tried hard to implement the strategy using the full set of policy instruments; political factors contributed, however, to weaken or delay the adjustment effort. Exchange market intervention in support of the dollar was conducted immediately after the Louvre meeting in a tightly coordinated manner, involving large amounts (see Table 2). Monetary policy was tigthened in the United States; in Germany and Japan, it was relaxed in pursuit of the twin objective of stimulating domestic demand and weakening their currencies. Fiscal policy was also activated although perhaps too late to affect domestic demand as envisaged in the Accord: a substantial fiscal stimulus was imparted in Japan, while the budget deficit in the United States declined significantly, but mostly as a temporary effect of the tax reform. In Germany fiscal policy remained broadly unchanged, as the authorities did not modify the schedule of a tax reduction envisaged for January 1988, although its scope was made larger than originally planned (see Table 3).

Despite the good intentions, the situation deteriorated since mid-1987, because of the persistence of the US trade deficit and the revival of inflationary expectations which pushed interest rates upwards. This created a situation of potential conflict between domestic and external objectives in the G-7 countries and strained the EPC process. In fact an increase in market rates in Germany was publicly criticized by the United States as violating the Louvre Accord; at the same time the United States resumed the practice of "talking the dollar down" which was regarded by the market as as "opting out" from the EPC strategy. In reality monetary policy had

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42. See Feldstein (1987). A more meditated, and less sanguine, elaboration of these arguments, based on an econometric model, is presented in Gaiotti, Giucca and Micossi (1988).

Table 3

GENERAL GOVERNMENT FINANCIAL BALANCES AND INDICATORS OF FISCAL POLICY

(As a percentage of nominal GNP/GDP)

	1985		1986		1987		1988		1989	
	Change in actual balance	Change in cyclically-adjusted balance (*)	Change in actual balance	Change in cyclically-adjusted balance (*)	Change in actual balance	Change in cyclically-adjusted balance (*)	Change in actual balance	Change in cyclically-adjusted balance (*)	Change in actual balance	Change in cyclically-adjusted balance (*)
United States	-0.7	-0.8	-0.2	-0.4	1.1	0.8	0.5	-0.2	0.5	-0.1
Japan	0.8	0.5	-0.1	0.3	0.8	0.7	1.4	0.9	0.7	0.5
Germany	0.8	0.6	-0.1	-0.3	-0.5	-0.4	-0.3	-0.9	2.3	1.6
France	0.3	0.6	-0.1	--	0.4	0.3	0.6	--	--	-0.6
United Kingdom	1.3	0.5	0.2	-0.3	1.0	0.1	2.3	1.4	-0.1	--
Italy	-1.0	-1.2	1.2	0.8	1.0	0.6	0.6	--	0.4	--

(*) Reflects deliberate policy actions, fiscal drag, changes to debt service costs and variations in resource revenues. A positive sign indicates a move towards budgetary surplus; a negative sign indicates a move towards deficit.

Source: OECD, Economic Outlook, June 1990.

been tigthened everywhere as central banks became concerned about the inflationary consequences of earlier dollar interventions. This combination of factors led to the stock market crash of October 1987.

As it turned out, reports about the world coming to an end on October 19, 1987 were grossly exaggerated and the analysis of the working of the policy coordination strategy must accordingly be extended beyond that date. In fact, the stock market crash provided a very powerful argument for a resumption of cooperation. Although the pursuit of the original objectives of EPC (i.e. adjusting external imbalances) was temporarily suspended in favor of maintaining stability in financial markets, a cooperative attitude came back into play. Monetary policy was relaxed in all G-7 countries and, possibly because of that, none of the feared repercussions of the crash materialized. There was no contraction of demand, no bankruptcies, no increase in unemployment. Towards the Spring of 1988 economic activity actually appeared to be growing much faster than expected, resuming the strong upward trend initiated in mid-1987.

The original objectives and instruments of EPC were reconfirmed and made public with the G-7 statement of December 22, 1987, which was accompanied by a renewed commitment to sustain the dollar. The immediate reaction to the statement was one of skepticism and heavy selling of dollars took place pushing the dollar to its lowest levels vis-à-vis the Deutsche mark and the yen. However, the response of the G-7 central banks was very firm and an unprecedented round of coordinated interventions was conducted around the clock in the United States, the Far East and Europe in early January 1988. Central banks continued to purchase dollars even after the rate had begun to move higher, with the deliberate intention to penalize market participants who had sold dollars short and were forced to cover their positions at rising prices.

The actions undertaken by the G-7 convinced market participants that the United States had "opted in" back in the

EPC exercise and this proved to be a major factor in stabilizing expectations.

3.4 EPC in phase 3 (June 1988-April 1990)

During phase 3 the pursuit of external adjustment was hampered by the need to fight inflation. In a situation of standstill on fiscal policies, monetary policies were assigned to the goal of containing inflationary pressures, while the correction of international imbalances was de facto left to "structural policies" and to the delayed effects of past exchange rate changes.

As market expectations of a dollar depreciation disappeared because of a tighter monetary policy in the United States, interest rate differentials in favor of the dollar began to play a major role in orienting international capital flows towards the United States. As a result, a new trend of dollar appreciation was set in motion, while the improvement of the United States current account position came to a halt between 1988 and 1989 (see Table 1).

Exchange market interventions were used more to smooth the new dollar trend than to counter it. In fact market participants were quick to note that during this period one or the other of the major three central banks was invariably abstaining from participating in coordinated interventions, or was present with only token amounts. Such interventions, despite the substantial amounts involved (see Table 2), proved useless and contributed to reinforce the popular credence that central banks are too "small" to fight "big" markets.[43] This uneven behaviour led the market to believe that the G-7 agreed on the need to prevent a fall of the dollar, but disagreed on

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43. Only on one occasion a powerful coordinated action was undertaken by all parties concerned, and that was to counter the strong, but short-lived, downward pressure on the dollar that occurred in November 1988 immediately after the election of President Bush.

the need to prevent its rise; in the absence of a downside risk, the dollar thus appreciated by 14 per cent vis-à-vis the Deutsche mark and by 16 per cent vis-à-vis the yen between mid-June 1988 and mid-September 1989.

Confronted with the outlook of a deteriorating US current account deficit for 1990, the G-7 on September 24, 1989 issued a statement indicating concern about the rise of the dollar and expressing the view that such trend was not in line with the fundamentals. The statement was followed by coordinated interventions by all the G-7 countries which had an immediate impact on exchange rates, as both the Deutsche mark and the yen appreciated vis-à-vis the dollar by about 5 per cent in the week following the G-7 meeting.

In the ensuing months, however, it became clear that major countries were not prepared to fully back interventions with consistent monetary policy measures. In the United States, official rates remained unchanged, although monetary conditions were somewhat relaxed as reflected in the gradual decline in the Federal Funds rate. In Germany and in most other European countries monetary policy was tightened in early October 1989, while in Japan it remained relatively accommodating. As a result of these diverging monetary stances between September 1989 and March 1990 the dollar depreciated vis-à-vis the Deutsche mark by 13 per cent, but appreciated by 8 per cent vis-à-vis the yen. This was certainly not in line with the objectives of the G-7, particularly in view of the large trade deficit of the United States with Japan. Market participants interpreted the reluctance of Japan to adjust its monetary policy as an "opting out" of G-7 commitments for domestic political reasons and to avoid unsettling the stock market. This attitude, however, backfired and the yen continued to weaken, despite substantial intervention by the Bank of Japan, as markets became convinced that a correction of the monetary stance would in any case be needed and that delaying action would only make the medicine more bitter. As it turned out, the Tokyo stock market recorded exceptional losses and

the Bank of Japan had to increase the discount rate by 1 percentage point on March 20, 1990.

Following the tightening of monetary policy in Japan, a G-7 statement was issued on April 7, 1990 in which the decline of the yen was regarded as "undesirable" and which coincided with a resumption of coordinated interventions in support of the yen. The yen firmed, but did recoup earlier losses only marginally.

3.5 The impact of G-7 EPC on the European Monetary System

The impact of G-7 EPC strategy on the European Community, as a multi-country pole, has been felt essentially on the exchange rate mechanism (ERM).

Movements of the dollar can affect the EMS in two ways, in line with the well known asymmetry due to the fact that the Deutsche mark is the only currency in the ERM with a status of reserve asset.[44] Because of the asymmetry, the sharp depreciation of the dollar during phase 1 generated tensions within the EMS. The strength of the dollar in phase 3 led to an undervaluation of the Deutsche mark in the ERM, thus contributing to expand the German current account surplus vis-à-vis the rest of the Community and aggravating the problems of intra-EMS imbalances duscussed in section 2.

An additional cause of EMS tensions is related to the coexistence of different exchange rate commitments undertaken by countries that are members of both the EMS and the G-7. As indicated in section 2 the main intervention

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44. See Giavazzi and Giovannini (1986). When the dollar is strong, the Deutsche mark tends to be weaker than other ERM currencies because it feels the impact of portfolio diversification: this tends to induce capital movements out of the Deutsche mark into the dollar and other ERM currencies. Conversely when the dollar is weak, diversification out of dollar portfolios is reflected in larger inflows into the German market than in other European countries, thus pushing the Deutsche mark upward in the ERM.

currency in the ERM is the Deutsche mark. The G-7 agreement to weaken the dollar implied for the ERM members the obligation not to sell Deutsche marks in case of exchange market tensions. Any departure from this rule would have been counterproductive and likely to be interpreted as a sign of disagreement among central banks. Thus for the ERM members other than Germany the decision to bring the dollar down had the simultaneous effects of creating a situation of tension within the ERM and of blunting the weapon to deal with it.[45]

An opportunity to analyse the impact of EPC on the EMS is provided by the general EMS realigment of January 12, 1987, which was generally regarded as unjustified in light of the fundamentals of members. The tensions leading to the realignment materialized against the background of an emerging policy disagreement within both the G-7 and the EMS. Within the G-7, the policy disagreement revolved around the question of whether the time had come to stabilize the dollar, described in section 3.3. Within the EMS, the policy disagreement stemmed from the fact that, following the April 1986 realignment, depreciating countries (particularly France) had been willing to reduce domestic interest rates. Germany, on the other hand, felt the pressure of capital inflows from the United States and tried to control domestic monetary aggregates by repurchase agreements which resulted in a moderate but constant upward crawl of market interest rates. The market reaction to such interest rate policy conflict was so strong

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45. In theory selling dollars should have the same supporting impact on the national currency than selling Deutsche marks; the effect of coordinated intervention, however, is to strengthen the Deutsche mark vis-à-vis all currencies, including those of the countries participating in the coordinated efforts. In each market therefore the immediate impact of the intervention would be to strengthen the domestic currency vis-à-vis the dollar and to weaken it vis-à-vis the Deutsche mark. As the authorities appear to be unwilling to check this latter movement, the market becomes temporarily unsettled, before arbitrage operations align the cross-rates. In any case, short term volatility of exchange rates is increased.

that massive interventions, a decline in interest rates in Germany and a significant downward movement of the French franc in the EMS band proved insufficient in preventing a new realigment.

The experience of G-7 EPC provides one important lesson for the multi-country pole: it must have a common policy vis-à-vis outside currencies. In the absence of such policy that pole is not in a position to undertake policy commitments vis-à-vis third currencies without running the risk of internal conflict. The realignment of January 1987 was a dramatic example of the consequences of a lack of an EEC policy vis-à-vis the dollar, and, although it did not induce member countries to formally adopt one, it led them to rethink their arrangements for handling situations of tensions not warranted by underlying economic conditions. The episode also showed that the EMS was gradually evolving towards a more symmetrical distribution of "power" among its members, as described in section 2. Indeed the incident was the catalyst for the Basel-Nyborg Agreement which involved a first step in establishing an EEC dollar policy inasmuch as it endorsed temporary departures from domestic monetary objectives for the sake of preserving the cohesion of the ERM, recognizing the joint responsibility of members in the pursuit of this objective.

3.6 The birth of a new regime?

One may wonder whether the evolution of G-7 EPC in the three phases described above justifies the conclusion that a new regime in world economic relationships has been established. As defined by Krasner[46] a regime is a set of "principles, norms, rules and decision making procedures around which the expectations of international actors converge in given issue areas". To answer that question, the behaviour

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46. See Krasner (1983).

of international actors, i.e. governments and market participants, must be analysed. This will allow also to express a judgment as to whether G-7 EPC has overcome the obstacles to coordination identified in section 1.3.

It is fair to say that, in the experience of EPC, actors have reduced their disagreements about the way in which economies work and have learned to coordinate their policies more efficiently. This does not mean that all political and technical obstacles to coordination have been overcome, but the main point that domestic policies have international repercussions and that those must be taken into account in policy making is no longer questioned as it was by some countries in the early eighties. No country any longer objects to the use of exchange market interventions as a legitimate instrument of economic policy. Divergences of views remain about the practicability of coordinating fiscal policies, also because of institutional constraints, but progress is being made in developing common indicators of performance in the field of both macroeconomic and structural policies.

The experience of G-7 EPC confirms that the exercise involves costs of various nature and that it is easier to reach agreement in times of crisis than in times of quiet in the markets. The negotiating process has also involved delays in reaching policy agreement and has occasionally resulted in vague statements, liable to different interpretations and implementations. Nevertheless the G-7 EPC has also shown that there may be costs in opting out of the cooperative exercise, as indicated by the events that led to the "unwanted" EMS realignment of January 1987 and to the stock market crises of October 1987 in the United States and of February-March 1990 in Japan. Under these circumstances, governments may find themselves, on the one hand, locked-in in a cooperative strategy; on the other hand there may be a "prodigal son effect" in the sense that a return to the cooperative strategy after a short leave may be rewarded by market participants more than it would deserve.

These considerations suggest that the problem of "reneging" in the practice of EPC is probably less serious than implied by the literature surveyed in section 1.3. The temptation to act as a "free rider" has obviously been present in the EPC but under a somewhat milder form: some countries have for example believed that they might be allowed to use a more limited number of policy instruments than others (e.g. leaving fiscal policy outside EPC), or to use them with reduced intensity (e.g. conducting sterilized exchange market interventions to delay needed monetary policy adjustments), or to have occasionally "opted out" to signify displeasure with the outcome of EPC or for domestic political reasons, but none of these instances can be labeled as "reneging" or "cheating".

In conclusion, the attitude of governments with respect to EPC has been one of convergence on the objectives and the requirements of the strategy, although some of them have revealed a preference for an EPC to be used much in the same way as one may use a taxi-cab: as a means to obtain occasionally a service at a convenient cost, but not as a permanent arrangement.

The attitude of market participants has been more puzzling, as it appeared, paradoxically, to be more consistent with the requirements of a policy coordination regime, than that of governments. More precisely, market participants acted as if a regime was in place when governments told them there was one, and acted as if no regime was in place, when policy actions appeared to be conflicting with the coordination strategy. One attempt to explain such attitude is provided below.

In response to an increased liquidity preference of investors, market intermediaries have developed the ability, through financial innovation and technological progress, to handle huge amounts of liquid funds using all available instruments, currencies and markets. Increasingly, the possibility of making profits in this business depends on the ability to react promptly to "news" that are likely to change

the price of currencies, bonds, stocks and so on. Among the most important "news" are those emanating from the monetary authorities, who have the power to influence the price of currencies and financial assets. Markets have thus become attentive watchers of any sort of economic data that may foreshadow a policy change. In this context, the continuing adherence of major countries to a strategy of policy coordination or its collapse are indeed very powerful news, likely to influence significantly the behaviour of markets.

This explains, inter alia, why exchange market interventions conducted by all parties in the EPC have been more effective than isolated, uncoordinated interventions, as evidenced by the outcome of G-7 interventions in the three phases of EPC (see Table 2). Coordinated interventions, in fact, have a stronger impact because they are more likely to convince market participants that the monetary authorities have a superior set of information, i.e. they recognize the existence of a trend unrelated to the fundamentals. Their intervention is therefore intepreted as a commitment to shape policies in such a way as to eliminate the underlying causes of the undesirable trend.[47] These considerations should not be interpreted as meaning that interventions have provided the G-7 countries with an additional policy instrument which has helped EPC to attain domestic and external targets. However interventions have clearly enhanced the effectiveness of coordinated macroeconomic policies through their ability to influence market expectations about future economic devel-

47. Obstfeld (1989) in his recent survey points out that: "Anectodal as well as econometric evidence suggests that intervention has been useful as a device for signaling to exchange markets official views on currency values". Moreover, "Concerted interventions have naturally been the most convincing, since international agreements on exchange rate objectives ensure that national authorities will not act at cross-purposes" (page 49).

opments.[48]

In sum, the experience of EPC has confirmed that something is changing in international monetary relations. The old regime of independently managed floating is perhaps gradually turning into a new regime based on joint management of exchange rates and on coordination of monetary policies. Markets appear ready to live with such a new regime provided that the objectives are the "right" ones (i.e. sustainable, non-inflationary growth, external adjustment, etc.) and all the major countries take active part in the game. Paradoxically, markets seem to pay less attention to actual achievements and appear content -- so far -- with the belief that major international imbalances will be corrected in the medium term.

The systemic implication of these developments could be that the exchange rate understandings embodied in the EPC strategy (namely the Louvre Accord) are interpreted by market participants as a formal regime of non-adjustable target zones for exchange rates, while in fact they were no more than an agreement to use exchange rates as indicators in a flexible framework for the coordination of a broad range of policies. If no progress were achieved, through the full set of policy instruments, in the adjustment of payments disequilibria, such belief may undermine the credibility of the entire EPC exercise.

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48. Dominguez and Frankel (1990) in their recent evaluation of the effectiveness of interventions in the DM market state that: "We find evidence of both an expectations effect and a portfolio effect. The statistical significance of the portfolio effect suggests that even sterilised intervention may have had positive effects during the sample period."

4. Conclusions

The conclusions of our analysis can be summarized as follows.

1. The literature on international policy coordination is still an "infant industry" with regard to both its theoretical foundations and its empirical applications. The theoretical case for welfare-improving coordination is still disputed; nonetheless a majority of the academic profession argues that the case is proved.

2. Economists recognize that there are strong obstacles to the effective exercise of EPC, especially in its practical implementation.

3. Empirically estimated gains from coordination are generally small. It is, however, widely recognized that because of difficulties in properly measuring them such gains may be underestimated.

4. In the international monetary system the United States still plays a central role. Its supremacy is primarily based on the status of the dollar as the main international currency, a feature which has given the United States a key position in the system, since coordination has been conducted largely in the monetary sphere.

5. Europe is a "non-unitary" actor. Nonetheless, Germany came to play the role of the leader within the ERM, thus contributing to a greater cohesion in the area. This fact resulted in a more effective EPC at both the regional (ERM) and the tripolar level, although in playing the game at these two levels the European countries incurred some costs. For the multi-country pole, an EPC involving exchange rate targets requires a common policy vis-à-vis

outside currencies; otherwise, internal conflicts may arise.

6. The conditions which led to the German leadership are changing. Although the new set-up cannot be easily predicted at this stage, the EMS will be a more unitary actor only inasmuch as significant progress is made in strengthening EPC in the area both at the institutional and the operational level. This goal can be achieved with the creation of the Economic and Monetary Union in the European Community, although it is not possible at this stage to foresee the length of the transition period.

7. The exercise of EPC has been undercut by the reluctance to use fiscal policy as an instrument, because of the prevailing attitude in favor of "fiscal consolidation". Consequently, monetary policy has been overburdened with the task of pursuing several, at times conflicting, objectives.

8. The experience of tripolar EPC since 1985 shows that it has been a useful tool for "crisis management" and, more generally, has been effective in coping with potentially "unsustainable" international imbalances, although the primary objective of correcting such disequilibria has not been achieved.

9. The practical exercise of tripolar EPC has led international actors, especially market participants, to perceive the emergence of a "regime" of policy coordination, thereby increasing the costs for individual countries to "opt out" of the cooperative game. This, however, if not supported by concerted action in other domains of economic policy -- fiscal and trade -- could deprive the system of the still needed flexibility in exchange rate arrangements.

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