



INTER-AMERICAN DEVELOPMENT BANK
INTEGRATION AND REGIONAL PROGRAMS DEPARTMENT
Regional Operations Department 1

Deepening Integration of MERCOSUR: Dealing with Disparities

**Macroeconomic Coordination Policies: Why and How?
From Europe to Mercosur**

Diego Moccero and Carlos Winograd

CONTENTS

| | |
|---|----|
| I. INTRODUCTION | 1 |
| II. THE EUROPEAN EXPERIENCE IN MACROECONOMIC POLICY COORDINATION | 3 |
| A. The Bretton Woods System as a coordination mechanism..... | 4 |
| B. The beginning of monetary cooperation | 5 |
| C. The Monetary Snake | 6 |
| D. The European Monetary System (EMS)..... | 8 |
| E. The Maastricht Treaty | 16 |
| F. Critics to the EMS and the Maastricht Treaty | 19 |
| G. Lessons for Mercosur..... | 20 |
| III. MAIN DISPARITIES AMONG MERCOSUR MEMBERS | 24 |
| A. Macroeconomic behavior of Mercosur countries | 25 |
| B. How asymmetric are shocks to Mercosur countries?..... | 28 |
| C. What is the impact of real exchange rate volatility on intra regional trade?..... | 30 |
| IV. THE DESIGN OF MACROECONOMIC COORDINATION POLICIES IN MERCOSUR..... | 32 |
| A. How to coordinate the exchange rate policy..... | 32 |
| B. The importance of fiscal elements in macroeconomic coordination..... | 33 |
| C. The occurrence of financial crisis and its impact on policy coordination..... | 33 |
| D. The design of enforceability mechanisms to make countries respect the coordination policy rules..... | 34 |
| V. CONCLUSION | 34 |
| BIBLIOGRAPHY | 35 |

The opinions expressed herein are those of the authors and do not necessarily reflect the official position of the IDB or its member countries.

MACROECONOMIC COORDINATION POLICIES: WHY AND HOW? FROM EUROPE TO MERCOSUR

Diego Moccero¹ and Carlos Winograd²

I. INTRODUCTION

The macroeconomic coordination initiative in Mercosur has been very limited until now. This is the case even if the Mercosur has among its foundational objectives the coordination of monetary, fiscal and exchange rate policies (Integration Cooperation and Development Treaty, 1988).

As it is widely discussed in the literature, macro policy coordination may have costs and benefits that should be carefully analysed before advancing in the cooperation process. To perform this task, two brands of literature are usually considered. The first one is that of the *Optimal Currency Areas* (OCAs), which stresses the conditions under which it would be beneficial for a country to abandon (or loose degrees of freedom) his exchange rate policy (monetary policy) as an instrument of economic adjustment. The second line of work is that of the *Credibility Gains*, which holds that it could be beneficial for a country to peg its currency to a low inflation country in order to “absorb” its credibility.

Other relevant arguments, unaccounted for in the aforementioned theories, should be considered in the decision making process leading to macroeconomic cooperation among nations. One has to do with the costs that interdependent countries have to face in light of possible macroeconomic disturbances in members countries. It would then be in the interest of these countries to coordinate their policies in order to avoid the “contagion” effect and eventually, to reduce such turmoil. Integration in trade and assets raises the level of interdependence between economies, thus reinforcing the transmission of shocks between countries. The need to coordinate macroeconomic policies in order to prevent or diminish the negative impact of shocks will then emerge.³ On the other hand, if greater integration in trade and financial markets may be welfare improving a more stable macroeconomic environment between the partners of the international economy will in turn reinforce the incentives for deeper integration. This argument goes way back into the controversies on the preferred international monetary regime, whereas in the gold standard days and later on the views of JM Keynes leading to the Bretton Woods agreements that followed the experience of the collapse of international trade and finance in the chaotic 1930s. A *virtuous cycle* of cooperation and welfare improving interdependence may thus emerge.

On the other hand, there are also political economy considerations that may drive the process, as was the case in Europe. For centuries, that continent was the scene of frequent wars. In the period 1870 to 1945, France and Germany engaged in three major military

¹ DELTA-ENS, Paris.

² EPEE, University Paris-Evry and DELTA-ENS, Paris.

³ The way in which coordination may reduce the possibility of a crisis is by imposing limits to fiscal deficits and debt, favoring cross country economic surveillance, etc.

conflicts, with ever rising human casualties and material destruction. At the end of World War Two, western world leaders developed the conviction that the only way to secure a lasting peace and economic progress was to increase interdependence between the long time rivals. The role of these priors explain in several occasions of economic and political tensions the resulting outcomes in the last forty years. In 1950 and as a first step in the integration process, the French Foreign Minister Robert Schuman proposed integrating the coal and steel industries of Western Europe. As a result, in 1951, the European Coal and Steel Community (ECSC) was set up, with six members: Belgium, Luxembourg, Netherlands (Benelux), France, Italy, and West Germany.

In the case of Mercosur, international shocks as well as national economic disturbances and the effects of contagion have been significant in the last twenty years. In the course of the process of trade integration starting in the 1980s these countries have become increasingly interdependent and the transmission of economic shocks in the region play an increasing role in their macroeconomic performance.⁴ If military considerations have a minor importance compared to the European experience, we should not neglect that in the traditional *hypothesis of conflict* of the military strategists the Mercosur countries were rivals since independence and as recently as 1978, Argentina and Chile (associate member) under dictatorships, were a few hours away from open war.⁵ On the other hand, the Mercosur agreement has particular clauses on the common goal of sustaining democratic regimes in the region. In the face of political crisis in Paraguay the bloc diminished the risks of a military coup in the 1990s.

Given the relatively lower political incentives for interdependence in Mercosur than in the European experience, economic disturbances and economic lobbies may prevail in times of crisis increasing the risks of derailing the integration process. Abrupt changes in bilateral real exchange rates, as well as divergent economic cycles may have a strong negative impact on certain sectors of the economy and society, leading to pressures for protectionist measures or distortive policies. In the current situation of Mercosur, marked by confusion and paralysis, aiming at relatively stable real exchange rates, based on consistent fundamentals, may contribute to contain the political gains of protectionist rhetoric and lead to deepening integration.

But the will to foster integration through cooperation cannot neglect the fundamentals of the club of countries involved. The disparities between economies are significant: in terms of size, income per capita (among countries and domestic inequality), trade openness, economic structures, institutional development and social indicators. These important disparities may have a strong negative impact on the potential for regional macro coordination. Excessive differences between the countries may impinge coordination by requiring unequal treatment of countries and groups in the face of adverse conditions, such as asymmetric shocks. In turn, these disparities in various dimensions and the resulting responses will produce unequal benefits of policy coordination. Thus one of the main challenges for regional economic policy lies in the

⁴ For an analysis of trade specialisation and the relationship between the two major partners in the block, Argentina and Brazil, see Miotti, Quenan and Winograd (1995, 1999 and 2004). Carrera et al. (1998) show that a shock to one country has a greater impact on the other in the 1990s than in the 1980s.

⁵ See Potash (1969) and Rouquie (1978).

design of the coordination strategy bearing in mind the fundamental disparities identified, with the aim of reducing the latter differences. Can macro coordination contribute to convergence in the relevant dimensions above quoted? This study will discuss the potential benefits of cooperation focusing on what should be coordinated? To what extent? and what particular institutional arrangements should be developed?

To answer these questions we will draw the lessons from the European experience of macroeconomic coordination since the early days of the European Economic Community. We will then discuss the main differences between Mercosur and the European Union regarding the economic and institutional environment. Finally, we will combine the lessons obtained from the European experience and the fundamental disparities to be faced in the Mercosur to design a specific macroeconomic policy coordination agenda for the region. In the second section that follows we account for the European history of macroeconomic coordination, whereas the third section analyses the main disparities constraining the cooperation policies in Mercosur. In the light of the previous sections the fourth part of the study will discuss the appropriate design of macroeconomic coordination in the region, with the fifth section containing the conclusions.

II. THE EUROPEAN EXPERIENCE IN MACROECONOMIC POLICY COORDINATION

The European case is the most important one to be analyzed in order to get insights on the theory and practice of macroeconomic coordination policies for other regions of the world. The coordination effort in Europe has been a long and difficult process dealing with countries of diverse economic status and institutional set ups, developed under changing international scenarios. Economic and monetary crisis were not absent with frequent ups and downs in the process that eventually led to the creation of the monetary union. In the course of this long period ending in the successful launch of the common currency the strategy and the policy choices adopted were often the subject of severe criticisms, in particular in the most recent phases preceding the creation of the euro (the European monetary system –EMS- and the Maastricht treaty). As will be seen in the next sections, the main controversies concerned the possibility of maintaining long lasting pegged exchange rates, the conception of the system-wide monetary policy and the convergence criteria for interest rates, inflation and fiscal targets. It should be noted that most of the arguments against the course of action chosen were coherent and robust from an economic perspective, but the road to monetary union proved to be rather harmonious. What was then right been possibly wrong? What is the relevance of these controversies for the analysis of macroeconomic coordination in the Mercosur?

In this section we will discuss the experience of the European Community and draw the fundamental lessons, with a particular focus on the monetary issues. Some of the topics covered will include: the Treaty of Rome at the end of the 1950s, the works of the Bretton Woods System during the 1960s, the Werner Report (beginning of the 1970s), the monetary snake of 1972, the European Monetary System of the late 1970s, the Delors

Report and the Maastrich Treaty (the end of the 1980s and beginning of the 1990s, respectively).

The study will be conducted in two levels. On the one hand, we will present the macroeconomic performance of the EEC countries since the 1960s and the particular actions taken in conducting the coordination (the exchange rate policy and bands widths, fiscal targets, etc.). Many important questions emerge naturally when analyzing the European experience: What were the fundamentals of the macroeconomic coordination in Europe? What policies have been coordinated? What where the most important disparities between countries at the start of the coordination initiatives? Did these disparities impinge macroeconomic policy coordination? If so, how did they deal with these disparities? On the other hand, and not less important, we will discuss the institutional arrangements developed to conduct the coordination policy. Some important questions should be considered: Which institutions have been created in order to manage the macroeconomic coordination? How effective were they? Which rules or mechanisms were implemented to prevent strong deviations of the member countries?

In this section we will initially discuss the history of macro coordination since the early days of the EEC. The coordination process in Europe proceeded in steps, evolving from a low to a high intensity of coordination. As already mentioned the macro coordination showed regular ups and downs in its development due to domestic as well as international events. We will briefly discuss the various crisis confronted by the set of countries involved in the coordination initiatives to accomplish the programs proposed. We will then study the controversies on the different common initiatives, in particular the EMS and the Maastrich Treaty, the basic architecture leading to the monetary union. The last part of this section will draw the most important lessons that can be obtained from the European experience for the Mercosur highway of macro coordination.

A. The Bretton Woods System as a coordination mechanism

By the beginning of the 1960s, the coordination concerning the exchange rate policy in Europe was conducted via the IMF under the Bretton Woods system (BWS). This was a quasi fixed exchange rate system which linked all currencies to the US dollar and the latter anchored on a fixed parity to gold. Changes in the parities were allowed only in the case of a “fundamental disequilibrium” of the balance of payments, while temporary disequilibria could be financed through credits from the IMF. A 1% band of fluctuation around the central parities against the US dollar were allowed by the IMF rules. As this was considered excessive by the European countries, they jointly agreed to limit the band of fluctuation for their currencies against the dollar to 0.75% in order to reduce the intra-European exchange rate volatility. In practice, bilateral exchange rates were stable and the BWS led the European countries to attain almost completely fixed exchange rates during most of the 1960s.

From the point of view of the overall process of integration, the decisive event by that time was the signing of the Treaty of Rome (in the late 1950s), which contained two chapters concerning the economic policy coordination and the balance of payments. In particular, it was maintained that the state of the macroeconomy and the exchange rate

policy of every country were considered a matter of common concern. However, these provisions of the Treaty were never applied in practice since the policy concerning the exchange rates and the balance of payments assistance were considered a domain of the IMF. The only important practical consideration regarding macroeconomic policy coordination embodied in the treaty was the creation of the Monetary Committee. This was formed mainly by representatives of the Central Banks and of the finance ministries of every member country and it was considered a useful place to exchange information.

Later on, other committees dealing with economic policy coordination were established. In 1960 the Committee for Conjunctural Policy was set up and in 1964 the committees for Medium-Term Economic Policy, Budgetary Policy and the committee of Governors of the Central Banks of the member countries were created. Since the 1960s was a relatively favorable period where the levels of unemployment and inflation were low, there was little need for strong government intervention to stabilize the economy. From this point of view, the stabilization of exchange rates did not imply that any important domestic policy target should be sacrificed. On the other hand, trade integration among EEC members was not strong diminishing the role and benefits of macro coordination. However, we should note that during the 1960s gradual pressures for the appreciation of the mark were building up and Britain, not yet a member of the EEC, suffered a series of balance of payments crisis and corrective devaluations under the assistance of the IMF. Simultaneously, the Triffin *problem of confidence* in the dollar was developing, eventually leading to the crisis of the rules of Bretton Woods in the early 1970s.

B. The beginning of monetary cooperation

Towards the end of the 1960s, two important goals in the European integration process were completed: the customs union and the establishment of the Common Agricultural Policy. It therefore seemed time for a further move forward. By the end of 1969, the German Chancellor Willy Brandt suggested that member states should, in a first phase, jointly formulate medium-term objectives and aim to harmonize short-term policies. In a second phase, the EEC economies could move to a monetary union with permanently fixed exchange rates. It was then agreed by the countries that a major study should be conducted on these topics.

By October 1970, a detailed report was issued (called the Werner report) describing how Europe could reach in three stages a monetary union by 1980. This was the first time that the project of a common currency was mentioned as an official goal of the European Economic Community i.e. thirty years before the creation of the euro. In the first stage, the goal was the reduction of fluctuation margins between the currencies of the Member States. In particular, the report suggested that the bilateral fluctuation margins be reduced from the 0.75% agreed under the BWS to 0.6%. Then (second stage), the European economies should engage a process of total liberalization of capital movements with the integration of the financial markets and, in particular, of the banking systems. Finally, the exchange rates between the different currencies should be irrevocably fixed. Monetary union implied “the total and irreversible convertibility of currencies, the elimination of

fluctuation in exchange rates, the irrevocable fixing of parity rates and the complete liberalization of capital movements”.

This report does not include particular propositions concerning the institutional framework needed to put in place this union. A community system for the central banks, based on the US Federal Reserve System, is suggested to conduct the monetary policy and exchange-rate policy vis-à-vis third currencies. The Werner Report addressed the management of fiscal policies, highlighting the need for a “center of decision for economic policy” that would have a decisive influence over the economic policy of every country, including national budgetary policies. In particular, it was stated that changes in the public budgets, the size of balances and the financial policies should be agreed at the Community level.

The Report did not have specific references to the procedures and the macroeconomic policy coordination necessary to achieve the monetary union. This can be explained by the economic performances of the member states of EEC during the 1960s, where these countries showed a low degree of divergence in inflation and other macroeconomic indicators.

The Werner report was never implemented, even if the goal of a monetary union for Europe was politically endorsed by member countries. The reasons were twofold (Gros and Thygesen, 1998). On the one hand, the creation of new institutions (like the center of decision for economic policy) outside the existing framework was not accepted by country members. On the other hand the international scenario will strongly deteriorate in the 1970s with the collapse of the rules of the Bretton Woods System and the first oil shock in 1973. Inflation and unemployment will now emerge as new challenges for economic policy generating tensions in the EEC due to different policy preferences of the country members. The plans for the EMU, established in the Report, were then neglected.

C. The Monetary Snake

The Werner report was never implemented as such, but it should be noted that many of the goals and ideas presented were undertaken later. In particular, it should be highlighted the emphasis of the report on the coordination of macroeconomic policies. For instance, concerning monetary policy the Committee of Central Bank Governors was to establish general guidelines for member states, on issues such as bank liquidity, the terms for supply of credit and the level of interest rates. In practice, however, policy coordination concerned only the *day to day* management of the foreign exchange market.

On the other hand, the EEC countries followed the fundamental views of the Werner report aimed at preserving a stability in European exchange movements. With this objective was created the *Monetary Snake* in 1972. The fluctuation margin between the community’s currencies was then narrowed. Under the new system, every currency of the six member countries was allowed to fluctuate until +/-2.5% against the dollar (4.5% against each other).

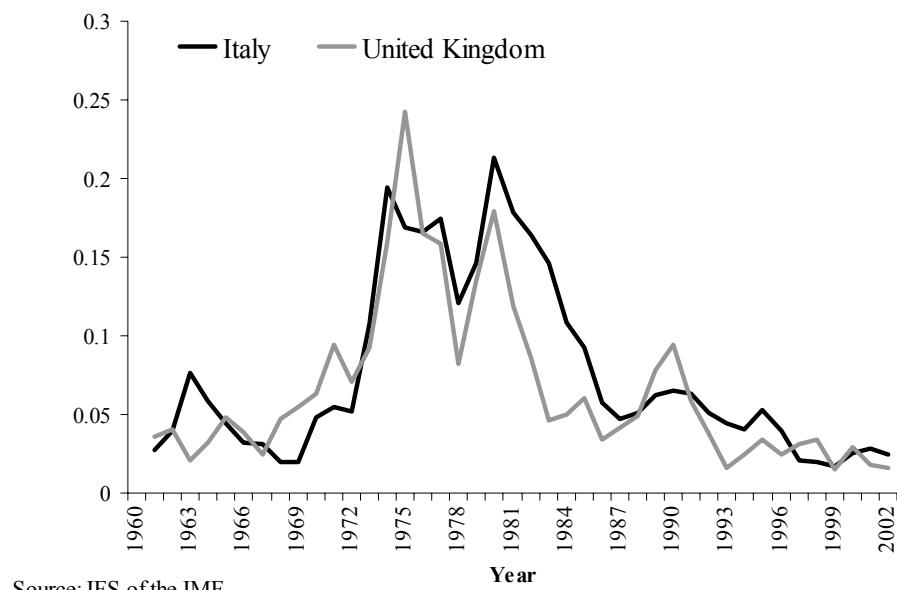
Shortly after the launching of the Monetary Snake, Denmark, United Kingdom, Ireland and Norway joined the EEC and its six original member countries. To ensure the proper operation of the snake mechanism, the member states created in 1973 the European Monetary Cooperation Fund (EMCF) which was authorized to receive part of the national monetary reserves. The Fund settled intervention balances and provided short-term balance of payments support (by providing short term and very short term facilities to the countries). Initially, this Fund existed more on paper since all operations were performed by the Bank of International Settlements (BIS) acting as agent.

In the environment of growing uncertainty due to collapse of the Bretton Woods rules in 1972, the system was put under severe pressure with the oil shock crisis of the early 1970's. Member States' currencies fluctuated sharply, with some countries going out and back into the system (Denmark and France) and other economies leaving it altogether (United Kingdom and Italy). For the countries that stayed in, individual realignments in exchange rates were frequent, while other countries let their exchange rate fluctuate temporarily. The case of France is paradigmatic in this respect since it showed until which point there was a divergence in policy preferences with Germany. While the latter country never left the system and managed to control inflation, France abandoned the snake exchange regime twice (1973 and 1976) to engage in more expansionary policies than Germany. The failure of Germany and France to agree on policy coordination was then apparent.

Later on, a general realignment occurred in October 1976 (the so called Frankfurt realignment), launching a phase of frequent exchange rate changes. Overall, five realignments were undertaken between the Frankfurt realignment of 1976 and the end of the snake prior to the negotiations to implement the European Monetary System (EMS) in the last quarter of 1978. In the second half of the 1970s inflation showed a sharp increase in Europe, notably so in countries like Italy and England where it approached 20% per year (Graph 1). The mid-1970s appear in retrospective as a low point in European monetary integration, marked by tensions in policy objectives (and preferences) between countries and divergent monetary policies.

In summary, the positive performance expected by the supporters of the Monetary Snake did not show in the facts. The disruptions provoked by the collapse of the rules set in Bretton Woods and the sharp increase in oil prices led to non symmetric effects on the European economies and divergent economic policy responses of the Member States in the 70s. In turn, increasing volatility induced frequent and sharp fluctuations in exchange rates. Entry and exit from the exchange stability mechanism became regular economics in the European arena and the market expectations reinforced destabilizing fundamentals. The snake mechanism, originally designed as an agreement of Community scope, was finally (by 1977) reduced to a zone of monetary stability around the German mark, with only five out of nine member states as participants (Germany, Belgium, the Netherlands, Luxembourg and Denmark).

Graph 1
Inflation in Italy and the UK



Source: IFS of the IMF.

D. The European Monetary System (EMS)

The German Chancellor, Helmut Schmidt, and the French President, Valéry Giscard d'Estaing decided in 1978 to establish a fixed exchange rate system for the member countries of the European Union. Academic and public criticism were then widespread. The new scheme started in March 1979 and operated in its original format – with minor changes - until the beginning of the European Monetary Union, on January 1, 1999.⁶

In March 1979, all ten member countries were part of the EMS, but the United Kingdom and Greece did not participate in the exchange rate mechanism (ERM). Thus, their membership was of a purely formal nature, except for the fact that their currencies were included in the new ECU currency basket.

⁶ Negotiations had started well before 1978 taking place during great part of that decade.

At the start of the ERM the eight members were relatively heterogeneous countries. Their population varied from 360,000 inhabitants (Luxembourg) to 61,3 million inhabitants (Federal Republic of Germany). The per capita income of the poorest country (Ireland) was only 58 % of the most wealthy country (Netherlands). The inflation rate in Italy (14.7 %) was more than three times higher than the inflation rate in Germany (4.1 %). And while Germany had then full employment (the unemployment rate was 3.2 %), Italy was already confronted with a serious unemployment problem (7.8 %). Major differences can also be observed in terms of the eight countries' trade openness: each of the three Benelux countries (Luxembourg, Belgium and the Netherlands) had a degree of openness of 50 % and more, while France was a relatively closed economy (18.3 %).

In spite of these differences, the European countries had common objectives on exchange rate and monetary policy arrangements (Bofinger and Flassbeck, 2000). In the 1970s inflation was a serious problem for many European countries (Graphs 2 and 3) and disinflation was an important common objective. Given the high credibility of the Bundesbank's monetary policy and the relatively low inflation rate in Germany in 1978, there was an incentive for the high-inflation ERM members to target a stable nominal exchange rate with that country. Germany was the best anchor for the European monetary stability.

The common agricultural policy (CAP) was also an incentive for stable bilateral exchange rates. For the agricultural sector, the Treaty envisaged a scheme of strongly regulated common prices (in a common currency) for all member countries. Under the rules of the CAP short term exchange rate instability had very unpleasant consequences. In an economic area without trade restrictions and low transport costs, such as Europe, deviations from the "law of one price" will be very limited. Thus, strongly fluctuating exchange rates provide opportunities for arbitrage which impair or benefit local producers in an arbitrary way. In order to deal with this problem a highly complicated system of "green parities" and compensating payments was required. Thus, the CAP rules in an environment of highly integrated markets were an additional incentive for exchange rate stability.

Furthermore, the relatively unsettled European monetary policy was an important incentive for the common search for exchange rate stability by country members. The frustrating experience of the monetary snake was at the basis of the new initiative for monetary cooperation. The snake system started with the six founding members, the UK and Denmark joined the scheme later, but they stayed in the snake only for a short period. Norway and Sweden became associated members. After withdrawal of Italy in 1971, a first (1973) and a second (1976) withdrawal of France, and a withdrawal of Sweden (1977), in 1978 the snake included only Germany, the three Benelux states and Norway. After this rather unstable collective performance the time had come for a comprehensive approach to European monetary integration.

The EMS was the response to this state of dissatisfaction with monetary affairs, even if we should highlight the initial resistance to the initiative and the low credibility that it conveyed. The new monetary scheme had two fundamental features. The first was the

establishment of the exchange rate mechanism (ERM), which is by far the most important characteristic of the system. The core of this mechanism was provided by a *parity grid*, a matrix of bilateral exchange rates. It defined for each member currency a parity vis à vis all other ERM currencies. Around this parity a band of $\pm 2.25\%$ for most member countries was established (Belgium, Denmark, France, Germany, Ireland and the Netherlands). Italy was allowed to use a larger bank of $\pm 6\%$ until 1990, when it decided to adhere to the narrow band. Newcomers to the system, Spain (1989), UK (1990) and Portugal (1992) adopted initially the wider band. After the 1992/93 ERM crises, the band was widened to $\pm 15\%$. The bands constituted for each currency an upper and a lower intervention point vis-à-vis all other currencies. The symmetry of the bilateral parities implied that whenever a currency A reached its upper intervention point vis-à-vis currency B (i.e. it depreciated vis-à-vis this currency), currency B simultaneously reached its lower intervention point vis-à-vis currency A. Thus, if a currency pair drifts to its bands, there were supposed to be two central banks that have an obligation to intervene.⁷

The second important feature of the system was the creation of the ECU, a new monetary unit defined as a basket of currencies of the countries that are members of the EMS. The ECU is composed of fixed absolute amounts of the currencies of all nine member countries which reflected the economic size of each participant in the EMS. The ECU was supposed to serve four main functions (of the European council of 5 December 1978): a) “as a denominator (numéraire) for the exchange rate mechanism; b) as the basis for a divergence indicator; c) as the denominator for the operations in both the intervention and the credit mechanisms; and d) as a means of settlement between monetary authorities of the European Community”. In practice, however, the ECU’s role in the ERM remained very limited.⁸

The system had a turbulent start since the occurrence of the second oil shock in 1979-80 put again in evidence important differences in policy preferences in Europe. The shock did not only lead to an increase of inflation in the EEC economies, but also worsened the current accounts, output contracted and the unemployment rates rose sharply (Graphs 4 and 5). The response of the french authorities to the oil shock showed once again a higher (lower) preference than Germany to overcome the recession via an expansionary fiscal policy (for tight public finance and price stability). This fundamental divergence in preferences between France and Germany, that extended to other EEC countries, explains the exchange volatility (frequent currency realignments, i.e. changes in the central parities between countries) of the region in the first half of the 80s.⁹ They became less frequent since the middle of the 80s and during the 1987-92 period no realignment at all took place. It is worthy mention that realignments were in general coupled with local policy measures that tended to offset inflationary pressures, such as deindexation of the economy, temporary freeze of prices and salaries, control of fiscal deficits, etc. In general these measures were discussed with the other EMS’ members or at least informed if it was an urgent situation. The other countries evaluated the economic situation of the

⁷ This *formal* symmetry of the exchange rate mechanism intervention obligations has led to a lot of confusion about the adjustment processes among the member countries. The issue of symmetry versus asymmetry in such a system will be analyzed in a latter version of the paper.

⁸ For a more detailed analysis see Bofinger and Flassbeck, 2000.

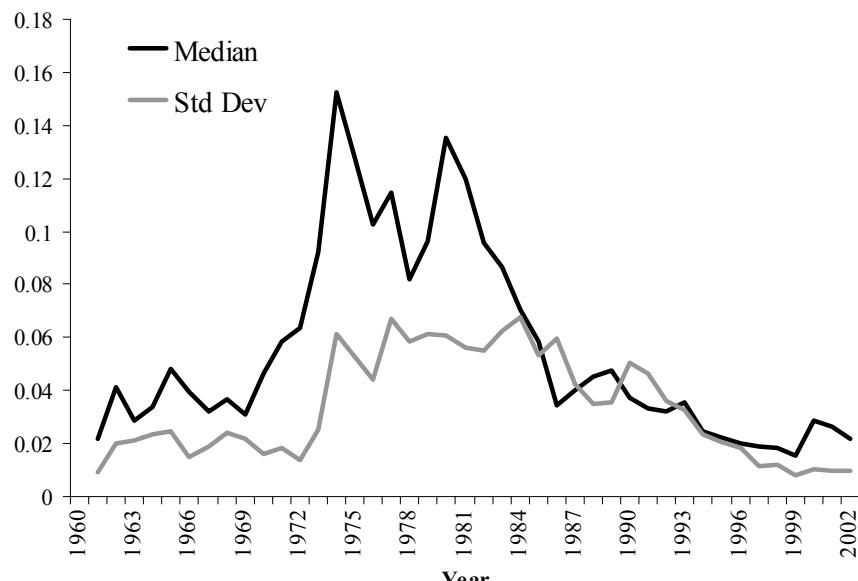
⁹ More than ten realignments took place by that time.

country in terms of external sustainability, inflation, competitiveness, etc. and gave or not their accord.

The EMS allowed for some progress in the conduct of the community monetary policy. First, realignments started to be seen as a joint responsibility, contrary to the experience of the Monetary Snake where individual realignments were the rule. In particular, realignments had to be endorsed by the Council of Ministers of Economics and Finance (ECOFIN) or at least, to have the informal agreement of the rest of the countries. Second, they were considered useful to prevent serious misalignments and to contribute to better equilibrium. Even if there was not any visible rule on the size of realignments, inflation differentials were broadly accommodated to contain changes in competitiveness. This was so not only for the EMS period but also after 1993. In any case, we can observe at the end of the process that led to the common currency that some countries experienced real appreciations and others real depreciations in their bilateral real exchange rates with Germany (Table 1).

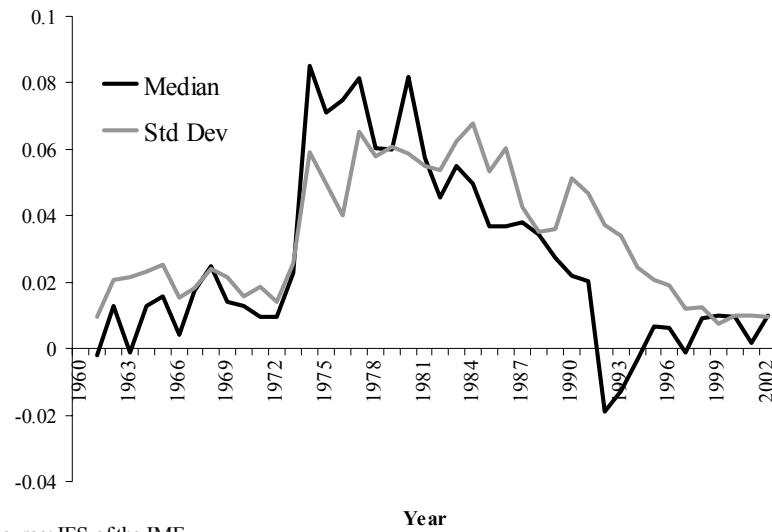
The operational and institutional set up of the system didn't change very much since it was put in place and until the Maastricht treaty in 1992. By this time, a series of developments chocked the system: apparent overvaluation of some participating currencies, German unification and the associated distortions in the German policy mix, doubts about the feasibility of EMU in light of the difficulties of ratifying the Maastricht treaty in several member countries and the weakness of the US dollar.

Graph 2
Inflation in the EU15 countries



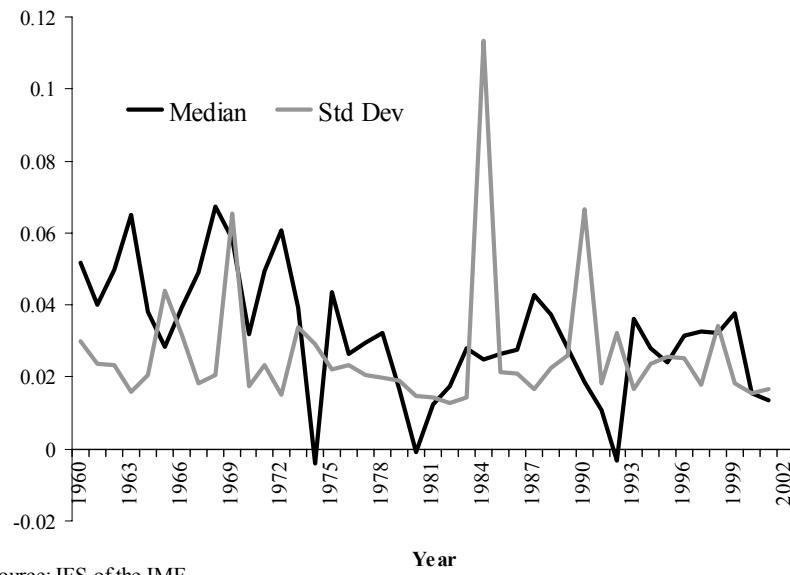
Source: IFS of the IMF.

Graph 3
EU15 - Inflation differential (with Germany)



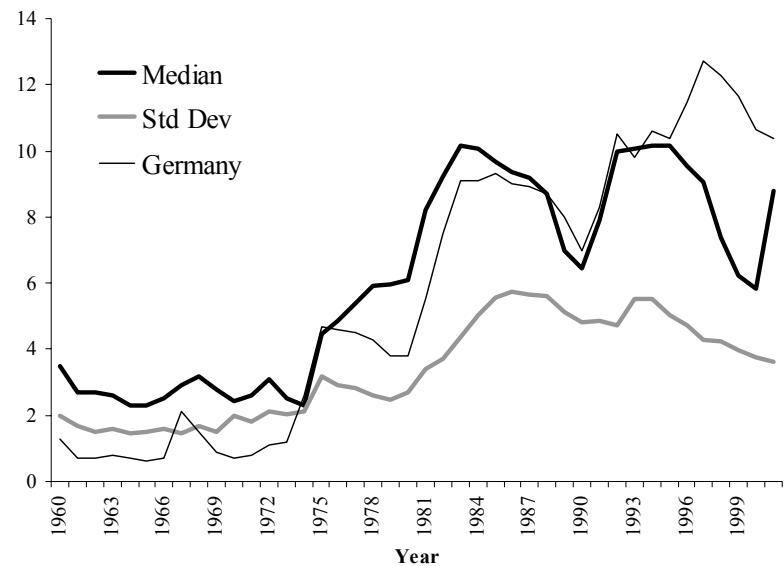
Source: IFS of the IMF.

Graph 4
GDP Growth in the EU15



Source: IFS of the IMF.

Graph 5
EU15 - Unemployment



Source: IFS of the IMF.

Table 1
Real bilateral exchange rates (with Germany). Index 1960 = 100

| Year | Austria | Belgium | Denmark | Finland | France | Greece | Ireland | Italy |
|-------------|---------|---------|---------|---------|--------|--------|---------|-------|
| 1960 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| 1961 | 102.9 | 105.5 | 102.9 | 104.6 | 104.0 | 104.5 | 103.6 | 103.9 |
| 1962 | 102.2 | 107.7 | 99.5 | 103.9 | 102.5 | 108.8 | 103.1 | 103.7 |
| 1963 | 102.5 | 108.8 | 96.5 | 102.0 | 100.6 | 108.9 | 103.7 | 99.2 |
| 1964 | 101.0 | 106.6 | 95.8 | 94.6 | 99.7 | 110.5 | 99.4 | 95.9 |
| 1965 | 99.4 | 105.5 | 93.8 | 93.2 | 100.2 | 110.6 | 97.7 | 94.8 |
| 1966 | 100.7 | 105.4 | 90.8 | 92.9 | 101.3 | 109.2 | 98.3 | 95.2 |
| 1967 | 98.4 | 103.8 | 85.9 | 96.4 | 100.1 | 109.1 | 98.0 | 93.8 |
| 1968 | 97.3 | 103.2 | 87.2 | 109.2 | 97.3 | 110.5 | 109.6 | 93.5 |
| 1969 | 97.6 | 103.2 | 87.0 | 110.4 | 99.7 | 111.4 | 105.5 | 94.7 |
| 1970 | 104.2 | 109.6 | 91.1 | 119.7 | 112.3 | 120.6 | 108.6 | 100.7 |
| 1971 | 105.0 | 113.3 | 93.5 | 123.0 | 116.7 | 128.6 | 107.9 | 104.1 |
| 1972 | 106.0 | 112.5 | 95.3 | 132.0 | 116.2 | 143.1 | 112.2 | 107.9 |
| 1973 | 106.6 | 118.9 | 96.9 | 140.0 | 122.0 | 156.1 | 131.2 | 124.3 |
| 1974 | 102.6 | 116.5 | 93.5 | 130.9 | 128.1 | 137.6 | 129.8 | 128.3 |
| 1975 | 98.3 | 108.7 | 89.7 | 120.7 | 113.9 | 144.5 | 126.0 | 122.8 |
| 1976 | 96.1 | 106.5 | 88.2 | 113.0 | 118.6 | 148.1 | 133.9 | 136.9 |
| 1977 | 94.4 | 103.8 | 88.6 | 117.6 | 124.4 | 149.7 | 137.1 | 138.9 |
| 1978 | 95.1 | 103.7 | 87.8 | 132.3 | 124.4 | 157.6 | 137.5 | 141.5 |
| 1979 | 96.3 | 105.4 | 87.2 | 132.9 | 120.9 | 152.2 | 129.9 | 137.9 |
| 1980 | 93.2 | 104.8 | 88.4 | 121.2 | 112.4 | 149.1 | 116.2 | 124.6 |
| 1981 | 91.8 | 105.7 | 85.5 | 107.1 | 109.1 | 133.2 | 105.1 | 120.0 |
| 1982 | 91.4 | 117.3 | 89.1 | 107.0 | 115.5 | 130.2 | 100.0 | 120.3 |
| 1983 | 91.5 | 119.7 | 89.8 | 112.0 | 120.1 | 140.1 | 101.2 | 115.7 |
| 1984 | 88.6 | 116.8 | 87.8 | 103.7 | 117.5 | 139.1 | 98.3 | 110.9 |
| 1985 | 87.7 | 113.1 | 84.8 | 99.8 | 112.8 | 141.1 | 94.0 | 109.0 |
| 1986 | 86.1 | 113.7 | 84.6 | 107.4 | 114.8 | 157.4 | 97.4 | 109.0 |
| 1987 | 85.2 | 113.4 | 83.3 | 108.3 | 116.8 | 158.5 | 103.1 | 109.5 |
| 1988 | 84.6 | 114.4 | 81.2 | 101.7 | 116.8 | 151.6 | 102.0 | 108.5 |
| 1989 | 84.9 | 114.1 | 80.8 | 93.9 | 116.1 | 146.5 | 101.1 | 103.3 |
| 1990 | 84.4 | 111.8 | 79.6 | 94.2 | 114.5 | 141.9 | 100.1 | 101.3 |
| 1991 | 83.0 | 109.6 | 79.6 | 94.8 | 113.8 | 135.2 | 98.6 | 97.7 |
| 1992 | 83.9 | 112.5 | 82.2 | 114.3 | 116.5 | 136.3 | 101.2 | 103.1 |
| 1993 | 84.5 | 116.2 | 86.0 | 140.8 | 120.4 | 141.3 | 114.4 | 124.3 |
| 1994 | 84.4 | 114.9 | 86.6 | 133.3 | 121.5 | 141.2 | 114.6 | 128.2 |
| 1995 | 83.9 | 114.9 | 86.0 | 127.1 | 123.7 | 142.5 | 120.2 | 141.7 |
| 1996 | 83.6 | 114.3 | 84.2 | 128.4 | 120.0 | 132.2 | 114.3 | 124.7 |
| 1997 | 84.1 | 114.9 | 83.0 | 126.8 | 119.6 | 125.7 | 105.1 | 119.3 |
| 1998 | 84.1 | 114.8 | 82.2 | 128.0 | 119.5 | 129.1 | 108.7 | 118.6 |

Table 1
Real bilateral exchange rates (with Germany) – Cont.

| | Luxembourg | Netherlands | Portugal | Spain | Sweden | United Kingdom |
|-------------|------------|-------------|----------|-------|--------|----------------|
| 1960 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| 1961 | 106.0 | 101.0 | 104.9 | 104.4 | 104.3 | 102.8 |
| 1962 | 109.0 | 101.6 | 106.0 | 102.5 | 103.2 | 102.5 |
| 1963 | 109.1 | 101.2 | 107.0 | 97.1 | 103.3 | 103.4 |
| 1964 | 108.1 | 97.9 | 105.9 | 92.9 | 102.3 | 102.5 |
| 1965 | 108.0 | 95.5 | 105.6 | 84.7 | 100.6 | 101.0 |
| 1966 | 108.3 | 93.6 | 104.2 | 82.6 | 97.9 | 100.7 |
| 1967 | 107.7 | 91.9 | 100.3 | 81.1 | 95.4 | 101.1 |
| 1968 | 106.7 | 90.1 | 96.1 | 89.1 | 95.1 | 113.1 |
| 1969 | 107.7 | 86.6 | 92.5 | 90.2 | 95.7 | 110.8 |
| 1970 | 114.8 | 93.1 | 98.6 | 95.0 | 99.7 | 116.1 |
| 1971 | 117.7 | 92.4 | 99.4 | 95.7 | 101.0 | 114.9 |
| 1972 | 116.9 | 90.8 | 101.0 | 94.8 | 102.7 | 121.1 |
| 1973 | 124.5 | 93.5 | 105.8 | 98.5 | 112.7 | 144.5 |
| 1974 | 125.6 | 90.6 | 94.7 | 93.1 | 115.1 | 144.3 |
| 1975 | 119.3 | 86.2 | 88.1 | 88.3 | 109.3 | 136.3 |
| 1976 | 116.2 | 84.2 | 89.8 | 89.2 | 105.9 | 146.6 |
| 1977 | 113.7 | 82.5 | 100.6 | 91.4 | 109.9 | 147.2 |
| 1978 | 115.0 | 83.0 | 111.8 | 91.4 | 119.7 | 146.8 |
| 1979 | 116.9 | 84.2 | 114.9 | 79.0 | 120.9 | 133.6 |
| 1980 | 116.6 | 83.3 | 107.1 | 77.6 | 111.5 | 109.8 |
| 1981 | 117.1 | 83.7 | 93.8 | 74.6 | 101.8 | 96.3 |
| 1982 | 129.2 | 83.0 | 96.8 | 76.1 | 114.1 | 100.7 |
| 1983 | 130.6 | 84.7 | 105.8 | 86.9 | 125.4 | 109.0 |
| 1984 | 128.4 | 84.7 | 99.4 | 80.4 | 115.1 | 108.3 |
| 1985 | 125.2 | 84.7 | 95.7 | 77.2 | 110.2 | 104.0 |
| 1986 | 127.1 | 84.5 | 101.9 | 79.1 | 118.5 | 120.3 |
| 1987 | 128.9 | 85.3 | 106.3 | 80.3 | 122.5 | 125.2 |
| 1988 | 129.6 | 85.6 | 102.7 | 74.9 | 116.0 | 113.8 |
| 1989 | 129.0 | 87.2 | 95.8 | 68.4 | 110.1 | 110.1 |
| 1990 | 126.0 | 87.3 | 91.4 | 66.0 | 109.3 | 110.5 |
| 1991 | 123.7 | 86.1 | 82.4 | 62.9 | 101.2 | 104.2 |
| 1992 | 126.0 | 87.6 | 78.9 | 65.3 | 106.3 | 112.4 |
| 1993 | 129.1 | 89.0 | 86.8 | 76.5 | 134.0 | 128.3 |
| 1994 | 127.9 | 88.8 | 89.4 | 80.6 | 136.1 | 128.6 |
| 1995 | 127.4 | 88.5 | 90.0 | 82.5 | 141.3 | 139.0 |
| 1996 | 127.5 | 88.0 | 86.1 | 78.2 | 127.7 | 132.4 |
| 1997 | 128.5 | 88.2 | 84.7 | 78.4 | 127.9 | 108.3 |
| 1998 | 128.4 | 87.4 | 84.2 | 78.1 | 132.6 | 103.0 |

E. The Maastricht Treaty

The Treaty of Maastricht (1992) introduced new forms of cooperation between the member state governments (on defense, justice, etc.). By adding this intergovernmental cooperation to the existing Community system, the Maastricht Treaty created the European Union (EU). Also, it decided to go for economic and monetary union (EMU), involving the introduction of a single European currency managed by a European Central Bank.

The strategy set by the treaty to reach a monetary union en Europe was based on two principles (De Grauwe, 1994). In the first place, the transition was seen as a gradual one, extending over a period of many years. Second, the treaty establishing the European Union (EU) required members to satisfy a number of convergence criteria before joining the economic and monetary union.

Transition was seen as gradual in the sense that it went on by steps. In the first step, which had already started in July 1990, the EMS members abolished all remaining capital controls. There was also a rise in cooperation among European Central Banks. During this phase, realignments were still possible. The second stage started on January 1, 1994. In that year the European Monetary Institute was created as transitional step in establishing the European Central Bank (ECB) and a common currency. It operated only during this phase and it could be considered to be the precursor of the ECB. Its function was to strength even more cooperation between national monetary authorities. In the final step, exchange rates between countries were irrevocably fixed and the ECB started its operations. The ECB, which was established in 1998, is responsible for setting a single monetary policy and interest rate for the adopting nations.

The transition to the final stage is however conditional to the accomplishment of the convergence criteria. These must be met by each member state before it can take part in the third stage of EMU. A country could only join if:

- there was a sustainable degree of price stability and an average inflation rate, observed over a period of one year before the examination, which did not exceed by more than one and a half percentage points that of the three best performing member states in terms of price stability;
- there was a long term nominal interest rate which did not exceed by more than two percentage points that of the three best performing member states in terms of price stability (Graph 6);
- there wasn't any devaluation during the two years preceding the entrance into the union;
- the ratio of government deficit to gross domestic product must not exceeded 3%. If it is, it should have been declining continuously and substantially and

come close to the 3% norm, or alternatively, the deviation should have been exceptional and temporary and remain close to the reference value (Graph 7);

- the ratio of government debt to gross domestic product must not have exceed 60%. If it does, it should have diminished sufficiently and approach the reference value at a satisfactory pace.

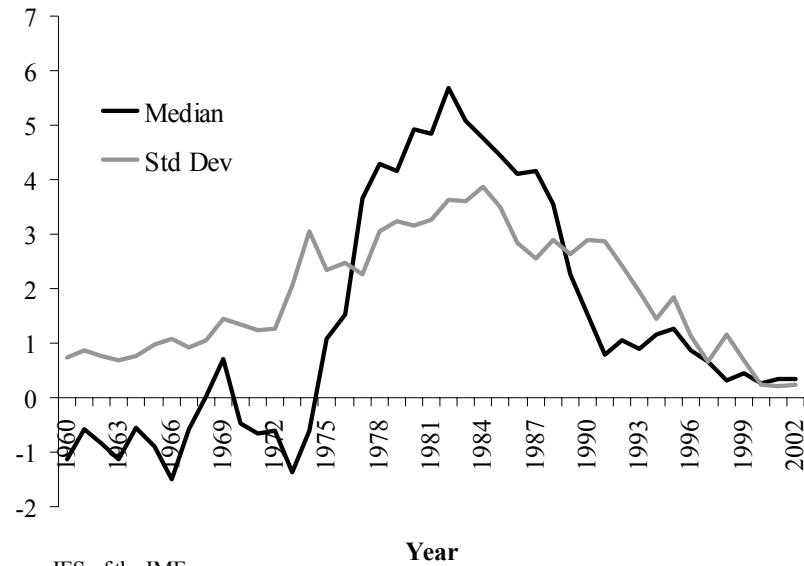
But what is the rationality behind these criteria? The convergence criteria are meant to ensure that economic development within EMU is balanced and does not give rise to any tensions between the Member States. In particular, the most important determinant of asking countries not to devalue their currencies is to prevent them to manipulate exchange rates in order to gain competitiveness just before the moment of entry.

On the other hand and concerning the conditions on inflation and fiscal targets, the main argument advanced was that Germany would have been injured if it were to form a monetary union with countries which are “less responsible” than it (De Grauwe, 1997). For instance, supposing that the German monetary authorities give a high weight to reducing inflation and supposing that the inflation rate for the union will be a kind of average of the rates of the member countries, it seems clear that Germany would experience a loss in welfare. So, the low inflation country reduces his welfare when forming a monetary union with prone inflation countries. Then, Germany will not be willing to do so unless it can impose some entry conditions.

The same type of argument can be used to justify the conditions on fiscal performance. Countries with huge amounts of debt as a relation to GDP have an extra incentive (apart from the preferences of the monetary authority) to generate inflation surprises. The idea is that if part of the debt was issued at a constant rate (based on previous expectations of inflation), an inflationary surprise will reduce its real value. As a result, the low inflation country will again loose and will ask the high debt country to reduce it prior the entry into the union. Of course, in order for this to happen, the government must reduce its government deficit. So, some of the entry conditions can be interpreted in this perspective: before the union starts, the candidate countries should provide evidence that they care about inflation in the same way Germany does.

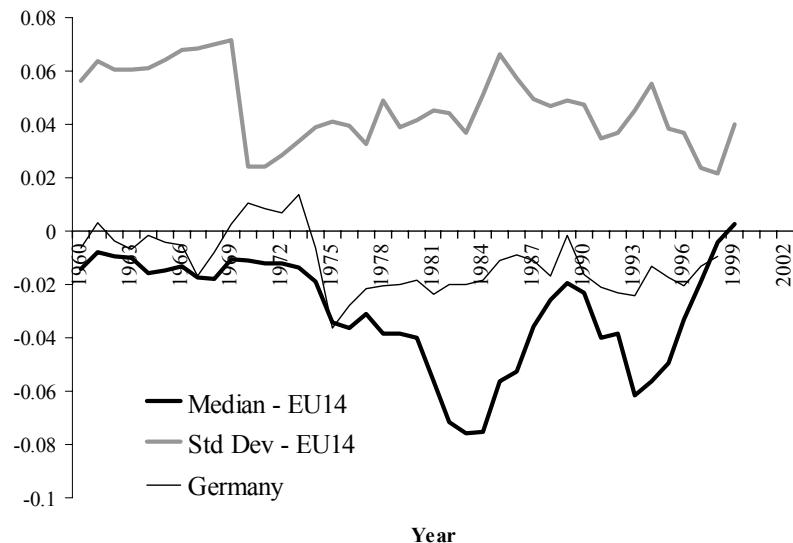
These convergence criteria have been the focus of an intense debate by that time. As was already aforementioned, the issue was that in spite of the fact that these critics were economically rational, they were not verified in practice. This is the subject of the next subsection.

Graph 6
Interest rates: EU15 - Government Bond differential (with Germany)



Source: IFS of the IMF.

Graph 7
EU15 - Fiscal deficit of the central government (as a GDP %)



Source: IFS of the IMF.

F. Critics to the EMS and the Maastricht Treaty

The most important problem of the EMS had to do with the credibility of the maintenance of a pegged exchange rate system. Another source of concern was the way the system monetary policy is determined (the so called liquidity problem). These caveats led many economists to doubt the long run sustainability of the system.

The credibility problem arises for two different reasons. The first one has to do with the fact that the exchange rate may sometimes be the less costly instrument to make an adjustment after the economy was hit by a shock. In such a situation, rational speculators will realize that the government has an incentive to change the parity and as a result, they will think it likely for a devaluation to occur. As a result, the exchange rate commitment will not be credible and will often be subject to speculative attacks. The only way to overcome the problem is for the government to commit itself with the maintenance of the fixed exchange rate, whatever are the costs in terms of employment and output. The other source of credibility concerns comes from the fact that different reputations of the monetary authorities may finally undermine the functioning of the regime. When a low reputation monetary authority fixes its exchange rate, speculators will think it has an incentive to devalue by surprise, generating inflation and obtaining a more favorable output-inflation outcome. Anticipating this, inflation in this country will be permanently higher, forcing the authorities to change the parity regularly. The final effect would be that large scale speculative crisis will occur prior to the anticipated dates of realignments. As such, a country like this will find very difficult to fix its exchange rate in a credible manner.

The liquidity problem of pegged exchange rate regimes can be stated as follows: in an n country system, only one country can fix independently its monetary policy while the rest has to adjust to maintain the fixed exchange rates. It is exactly the way in which this degree of freedom will be used that may cause troubles between member countries. One possibility is that only one country (the leader) fixes its monetary stock completely independently of the rest. In such a case, a shock to the followers has to be completely absorbed by them, making the monetary stock and output very volatile. The other possibility is that countries decide jointly about the level of monetary stocks and interest rates in their countries (cooperative solution). Here, a shock to one country is absorbed by all of them (all the countries intervene in order to keep exchange rates aligned), minimizing the impact on money and output volatility. The conclusion is that asymmetric systems are not very efficient at dealing with asymmetric shocks to the system. The problem is that an asymmetric system is likely to lead to conflicts between members about the pace of monetary policy to be followed by the whole system. At the end, more cooperative arrangements will be necessary.

We will discuss below the most important criticisms against the Maastricht treaty. As previously mentioned, the basic rationale of the Maastricht Treaty was that of a transitory arrangement leading in time to the monetary union. The dominant view was that a successful launching of the common currency required a previous convergence of inflation, interest rates and budget deficits (and public debt indicators) in the region.

Simultaneously it was argued that a gradual increase in the rigidity of the exchange system was desirable: the proposition finally adopted was that of establishing fixed exchange rates between country members two years before the introduction of the EMU.

This Maastricht strategy for the transition to the monetary union gave rise to intense controversies among economists. Certain academics such as Giovannini (1990), Begg et al (1991) and De Grauwe (1994) argued that the Maastricht road to EMU would jeopardize the objective of the architects of the monetary union. The most important critiques were based on diverse economic dimensions. In the first place, these authors considered that fixed exchange rates would not be sustainable for a long period of time before the introduction of the common currency. The pressures on the fixed parities would not only emerge from the different trends observed for the macro *fundamentals* of the country members, but also from the conflicts of interest related to the appropriate monetary policy for the region. It was thus argued that these tensions would jeopardize the credibility of the fixed exchange regime for the transition to EMU, eventually producing a negative contagion effect on the common currency project.

In turn, the lack of credibility of the fixed parities regime would have made difficult the convergence in interest rates. The reason is that these could only converge if there is an increasing confidence that the exchange rates will remain fixed. Then, the lack of confidence in the system should have been translated directly into different interest rates among member countries.

The convergence in inflation rates was also supposed to be problematic because, during the transition, the national governments would continue to issue their own currencies. Since the reputation of the monetary authority was different among members, this would have an impact on expected inflation and actual inflation, making difficult the convergence to the levels required by the Treaty.

The fiscal conditions for entry into the EMU (3 % of GDP of fiscal deficit and 60% of government debt) had also been criticized. The most important critique was that they were supposed to be very ad-hoc, without any economic rationale underlying it.

In general, it was believed (De Grauwe, 1994) that the convergence of exchange rates, interest rates and inflation would only easily occur after a monetary union was placed. Before that, it was said, it was very hard to meet all of these criteria simultaneously. Moreover, the conditions stressed by the theory of optimum currency areas emphasized very different conditions than those of the Maastricht Treaty (flexible prices and wages, integrated labor markets, automatic fiscal redistribution mechanisms, etc.). The Maastricht convergence criteria would only then constitute, in the view of those who criticized it, an obstacle to a monetary union.

G. Lessons for Mercosur

At a preliminary level, there are five lessons on macroeconomic policy coordination from the European experience for the Mercosur case. These lessons start with the dominant

role of the political will and the collective trauma of wars and massive destruction as a fundamental for cooperation in Europe. We then should highlight other more down to earth economic issues such as differences in preferences of the different member states (voters and policy makers) and the response to shocks, the incentives for the high reputation holder country to participate in the monetary coordination initiative, take the role of leader and loose monetary autonomy. The role of the international environment in the success of the coordination effort and the relative priority given to exchange rate collective management should be discussed.

The first lesson concerns the fact that the European integration process was most of all a political agreement and this is an important reason why it could progress through time, even when countries seemed to diverge significantly and faced frequent crisis (notably, during the 1970s, the 1980s and the speculative attacks of 1992-93). This implies that there should be a great degree of commitment from member countries towards integration. Lo que viene de decirse implica un compromiso político que no se encuentra entre los países del Mercosur hoy en día.

Secondly, the European experience shows that the existence of marked differences in the preferences of policymakers in terms of inflation, output and unemployment may jeopardize the coordination process. This has been the case with the snake system in the 70s and the EMS in the 80s and 90s. France and Germany are a good example of this problem: the former has focused its attention mainly towards output and employment stability, while the latter has conveyed more weight to inflation rates. The dismantling of the EMS in 1993 was strictly connected with the fact that the recession made it evident that there were non trivial economic policy conflicts among the countries. It should be concluded that a minimum degree of homogeneity in country preferences is a necessary condition if the system is to successfully survive destabilizing economic events.

Thirdly, we mentioned the incentives of the leader to act as such. This is a key element when the decisions about the monetary policy (in a monetary union) are going to be made by member countries through their representation in the union central bank. The country holding the highest reputation (and the lowest inflation rate) will resist taking part in a monetary union with less credible countries (and higher inflation rates) as it may reduce its welfare. In the case of the European Union, Germany (the country with the best reputation and the lowest inflation rate) solved this problem by demanding the partner countries in the union to give more weight to price stability. This shift in preferences emerged in the Maastricht treaty, engaging the member economies in rather restrictive macro rules on inflation, budget deficits and the national levels of public debt.

We should highlight that the convergence criteria established by the Maastricht treaty are neither necessary nor sufficient conditions for the existence of a unique currency. The Maastricht rules are unrelated to the conditions proposed by the theory of optimum monetary areas (OCA) to obtain an outcome of net benefits from a common currency strategy. These criteria give incentives for the high credibility country to take part of the union, thus gaining a low inflation bias for the monetary region. In the case of Mercosur, the *Germany like* country is not a priori in the map. Which would be the advantage of a

Maastricht - type treaty in Mercosur? We could mention the reduction in the probability of balance of payment crisis in the region (by means of a set of constraints for the fundamentals), of financial crisis (rather frequent so far). We should also consider as a potential benefit of a set of restrictive macroeconomic rules the decrease in the real exchange rate volatility that leads to the action of disfavored groups of interest generating increased lobbying and frictions that may block or derail the integration process.

As stated above, exchange rate policies have been a key element in the European macroeconomic coordination initiatives, and it was implemented before other coordination policies (such as fiscal). An important reason why this happened was the significant increase in intra regional trade. The demand for monetary coordination grew then side by side with intra community trade, whatever this is measured. For instance, from graph 8 we can see that exports to member countries (measured by 15 members) as a percent of GDP grew steadily since 1960. For Germany, we can see that it tripled its weight from 1960 to the period previous the unification (1989), as it passed from a bit more than 5% to more than 15%. From that graph we can also see that there are important differences with France, this country consistently lying before the other. Only towards the end of the period considered there is a convergence between these nations. The importance of intra regional commerce is even stranger if one considers the ratio between intra community exports to extra community exports (Graph 9). Since the beginning of the 60s, exports to member countries have been greater than those to extra countries for Germany and France.

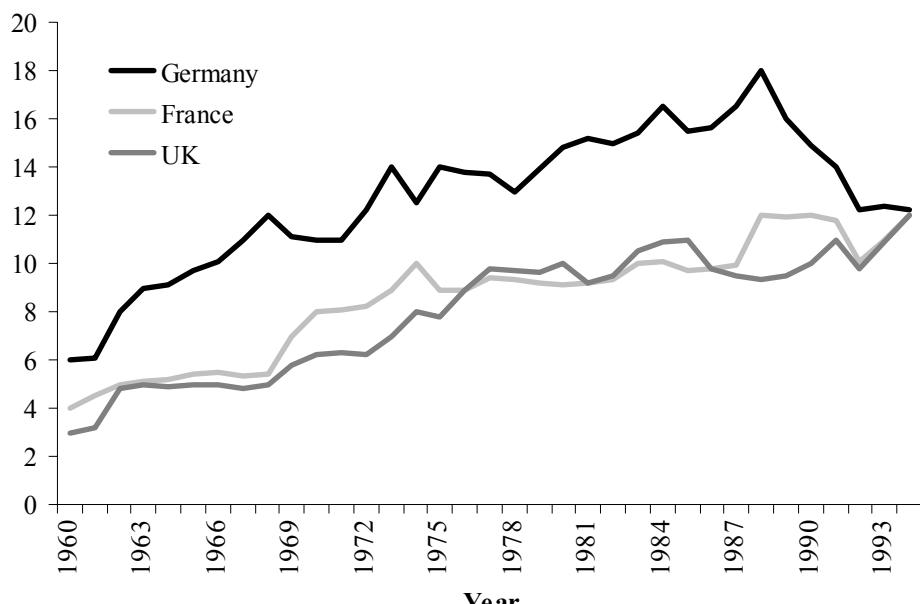
Finally, it should be pointed out that the international environment plays an important role in the dynamics of integration. A favorable international environment makes the integration and coordination process easier. For instance, the high growth rates of the world economy in the 1990s have certainly had a positive influence on the compliance of the Maastricht convergence criteria of 1992. Such constraints would have been difficult to attain (as well as political approval for the agreement) if the world economy had displayed a low growth rate or had been in a recession.¹⁰ The favorable international environment of the 1960s with low inflation and low unemployment rates had also a positive impact on the European integration process smoothing the road to greater interdependence. On the opposite, when the international economic scene shows significant disturbances the voters and policy makers of the different countries may show divergent responses harming the coordination effort. This was the case during the 70s and 80s, when the collapse of Bretton Woods and the severe oil shocks destabilized the macro environment and forced frequent realignments of the exchange rates as well as many exits and entries of the European monetary system by country members.

In the case of Mercosur, the impact of the international environment on the regional economics seems to be even more complex than in the European scenario. The ‘international economy’ may influence a wider set of variables: the international capital markets, the volatile price of commodities, the international interest rates (when there is access to the international capital markets), the growth rates in the developed countries

¹⁰ Note that the present situation of slow growth rates has prevented France from improving its fiscal situation.

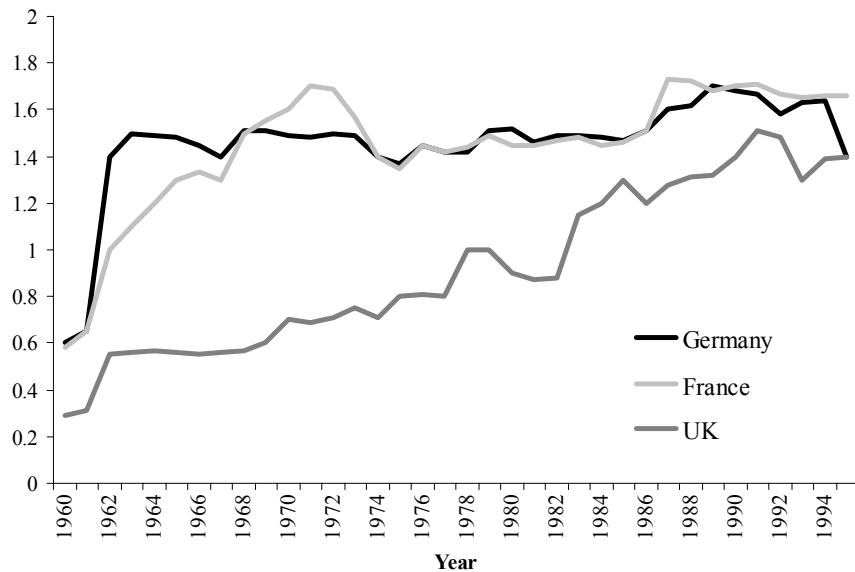
(important export markets). If the economies of Mercosur, and the region as a whole, show low degrees of openness the macroeconomic volatility has been very high. This fact should be certainly acknowledged in the design of coordination policies. The countries of the region may thus have an incentive to develop joint response mechanisms against external shocks and design policies to reduce the probability of occurrence of such shocks (rules on robust public finance, coordination of the banking system surveillance, etc).

Graph 8
Intra EU export as a share of GDP



Source: Gros and Thygesen (1998)

Graph 9
Ratio of intra european to extra euorpean exports



Source: Gros and Thygesen (1998)

III. MAIN DISPARITIES AMONG MERCOSUR MEMBERS

In this section we identify main differences between Mercosur members which could be critical for the coordination effort. The differences to be analyzed consist on the paths of macroeconomic variables (such as public debt, fiscal deficits, inflation and unemployment), the symmetry or not in which they react to macroeconomic shocks and the degree in which intra regional trade is affected by bilateral real exchange rate volatility.

The analysis of macroeconomic variables is important to determine the presence of a potential “Germany” (leader) in the region, and more in general, to see whether there are important differences in the preferences of the policymakers. In conducting such an analysis it is important to consider that not only actual differences are important regarding macroeconomic policy coordination in the region, *potential* differences must also be taken into account. Given the fact that these are very volatile economies, the goal will then be to identify areas in which members could diverge when faced to unexpected shocks or due to the application of inconsistent policies.

The characterization of shocks in the region is important to determine the degree of rigidity of the exchange rate that countries would be able to accept when negotiating the exchange rate policy coordination. If we conclude, that shocks in Mercosur countries are most of all asymmetric, then there is the need for a more flexible coordination in this area.

On the other hand, to define the type of exchange rate coordination (for example, the degree of fixity against third currencies) it is important to determine how harmful for trade the volatility in the intra regional real exchange rates is. In particular, one must make a comparison with the volatility in the extra regional exchange rate and its impact on the extra regional trade. For instance, if only intra regional volatility matters, then there is an incentive to coordinate intra regional exchange rates and as such, the fixation of the rates in terms of the other countries' currencies may be a good option. In such a case, Central Banks should maintain foreign reserves in terms of the other's countries currencies.

A. Macroeconomic behavior of Mercosur countries

A great success for Mercosur countries during the 90s was the control of inflation (Graph 10). During the 80s, the high inflation rates were the result of important fiscal deficits that couldn't be financed in the internal and external financial markets. For the 90s, lots of factors explain the convergence in inflation rates: the opening of the economies to international trade, the convergence in fiscal deficits (except for Brazil) to international levels (Graph 11), the opening of the international financial markets and the development of internal markets, the choice of fixed or quasi fixed exchange rate systems, etc. Even if we take into account the raise in inflation in these countries in 2002, we can see that there still was an important convergence between inflation rates. Unemployment and growing social exclusion have replaced inflation as the most urgent common economic challenge in the 1990s (Graph 12).

On public finance, we the chronic budget deficits of the 90s turned into important surplus in Argentina and Brazil in 2003 while Paraguay and Uruguay reached a balanced result. The graph 11 shows that the countries of the region (but Paraguay) have often exceeded the Maastricht 3% budget deficit rule, whereas given the history of monetary disorder, high inflation and low financial intermediation, the region should aim at more conservative stands than Europe to gain credibility. Easy access to international capital markets coupled with budget deficits contributed to a sharp rise in public debt since 1997. All the countries of the region showed a significative increase in public debt to GDP ratios, with Argentina and Uruguay almost doubling (after devaluations in 2002) the ratio for Paraguay and more than threefold the ratio for Brazil in 2003 (Graph 13).

From a macroeconomic view point, we can see that there was a convergence between countries in many indicators (GDP per capita and inflation) and also that countries face similar policy challenges (unemployment, public debt, and balance of payments vulnerability). The macroeconomic indicators look more alike.

Despite these similarities, from the analysis of the macroeconomic data and in particular of the inflation rate it is not clear which country could become the natural *leader* of the regional macroeconomic coordination. The largest country in the region, Brazil, displayed an average inflation rate of 394.5% between 1991 and 2003, strongly influenced by the extreme inflation episodes of the 90s (1991-1994), when the inflation rate reached four digits. The countries with the lowest rates for the same period are

Argentina and Paraguay (12%). Uruguay showed an intermediate level, with 28.4%. It is clear then that none of the countries has a long (and even short) history of responsible monetary behavior, as it was the case with Germany in Europe.

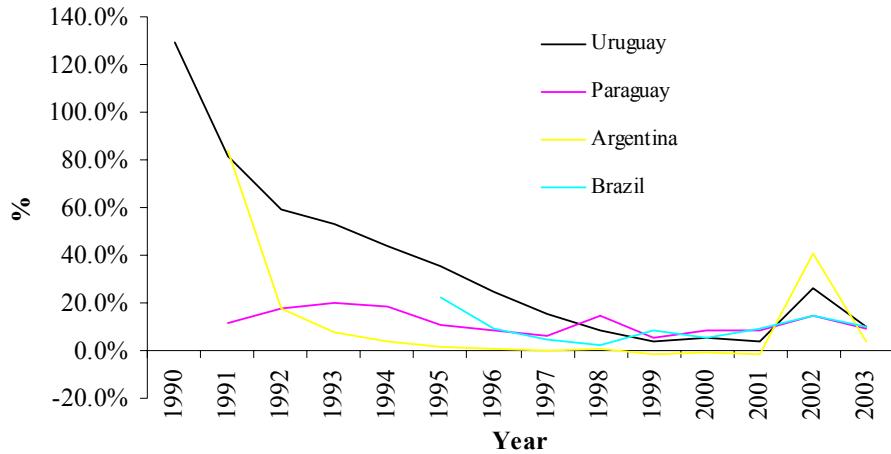
Concerning the different preferences of voters and policy makers, and according to the recent experience, it turns out that the country showing the strongest bias towards price stability seemed Argentina in the 1990s. This country had sacrificed the nominal exchange rate as adjustment mechanism, and consequently was forced to experience large output and employment contractions in response to adverse external shocks. The other countries of the region, even under stabilization programs, have conveyed more flexibility to the exchange rate policy. Nevertheless, Argentina has seriously jeopardized its *credibility ranking* after the public debt default in 2001.

Another challenge for a strategy of monetary coordination may emerge from different macroeconomic performances. The risk of severe divergence seems to have diminished in the 1990s, where the countries of the region have showed a high degree of macroeconomic convergence. However, based on the past historical economic behavior such a risk of renewed divergence in the future cannot be discarded. On the positive side, as of today the countries of Mercosur have in common flexible exchange rate regimes (different versions of floating systems). On the negative side of flexibility, the implicit discretion in monetary policy is higher and may lead to destabilizing monetary policies and potential negative contagion effects between these economies. The economic events of the 1980s in the region

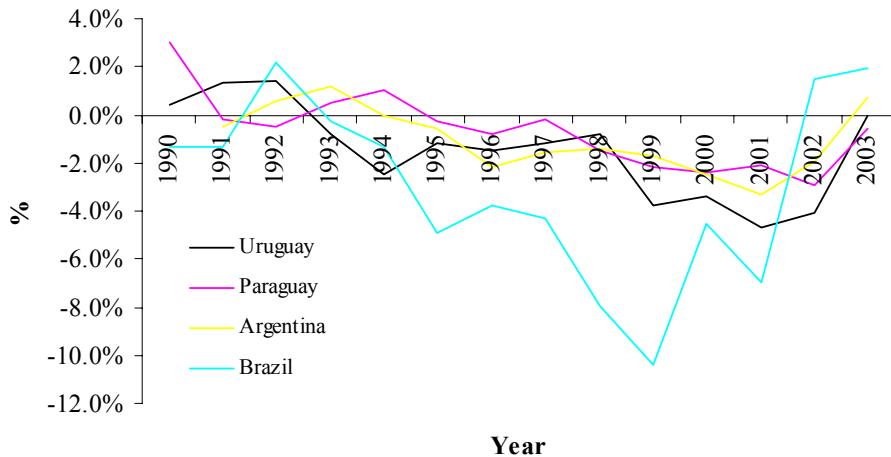
The fact that the economies may strongly diverge in the future may be an important incentive to implement coordination mechanisms aimed at avoiding the *panics* of the past. In such a case, coordination could act as a *peer-control* that allows countries to put in place policies and reforms that they wouldn't be able to apply just by themselves.¹¹

¹¹ See Carrera, Sturzenegger and Levy Yeyati, 2000.

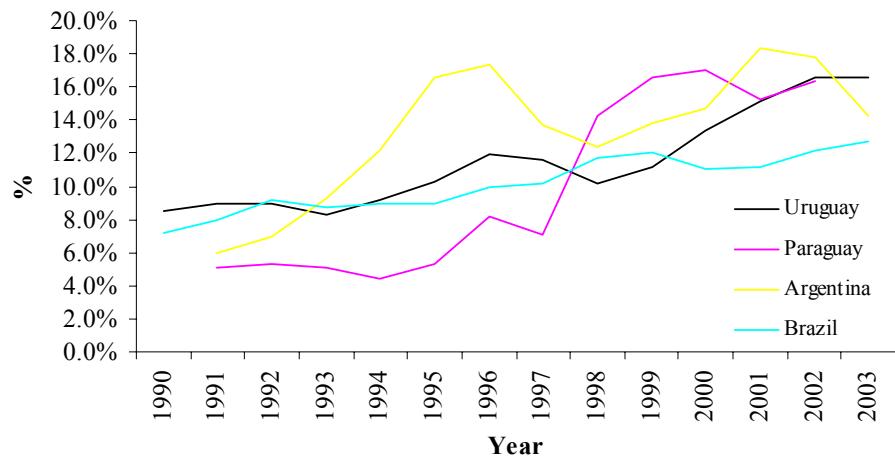
Graph 10
Convergence in Inflation (CPI)



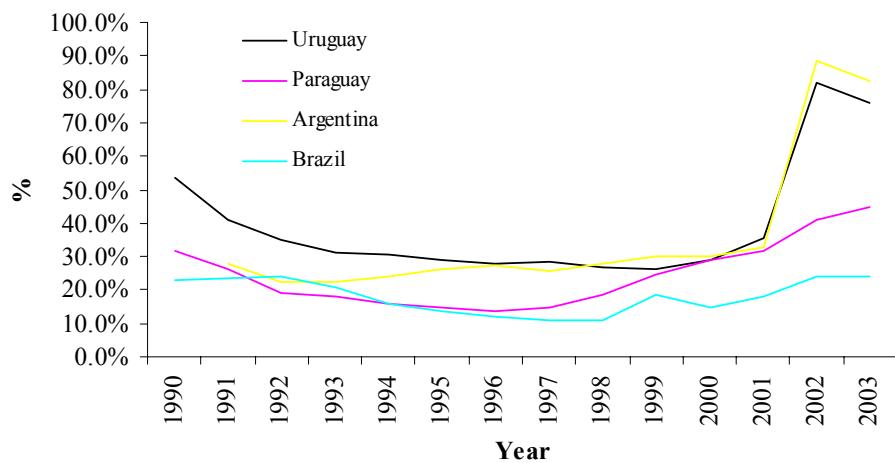
Graph 11
A deteriorated fiscal balance (% of GDP)



Graph 12
Unemployment in Mercosur countries



Graph 13
Public external debt in Mercosur countries (% of GDP)¹²



B. How asymmetric are shocks to Mercosur countries?

An important lesson from the OCA theory is that one important determinant of how costly is to put in place a monetary area is the asymmetry of shocks between member countries. As it is already known, if shocks are symmetric, countries will react in the same way, making the use of relative price adjustments less useful.

Licandro Ferrando (2000) compared the symmetry of shocks to Mercosur with those of NAFTA and Europe. He found that shocks are less symmetric in Mercosur countries than in the other regions. On the other hand, Bayoumi and Eichengreen (1994) and Kenen

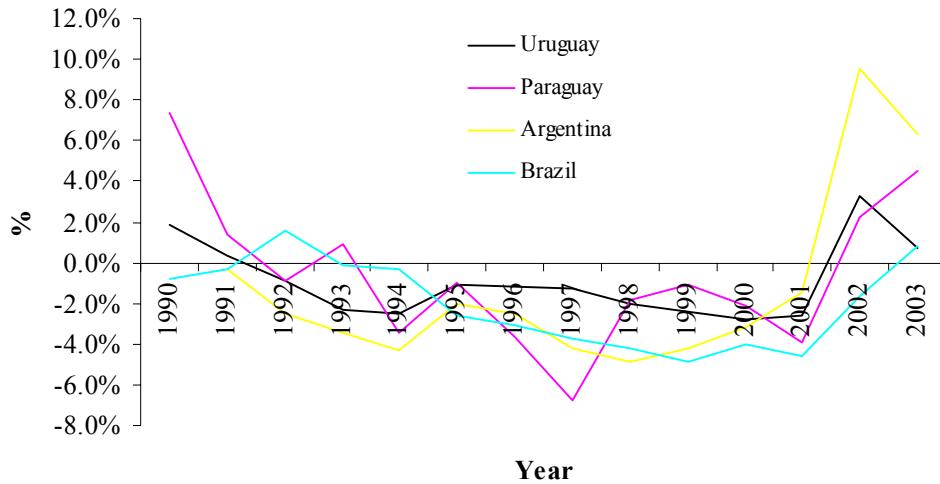
¹² For Uruguay is total public debt.

(1995) found that the size of shocks is greater for Mercosur countries than for those of Europe. So, shocks are more important and less symmetric for Mercosur countries. In spite of this, many authors (Licandro Ferrando, 2000; Carrera et al., 1998) have found that shocks became more symmetric during the last years, as the integration process went on.

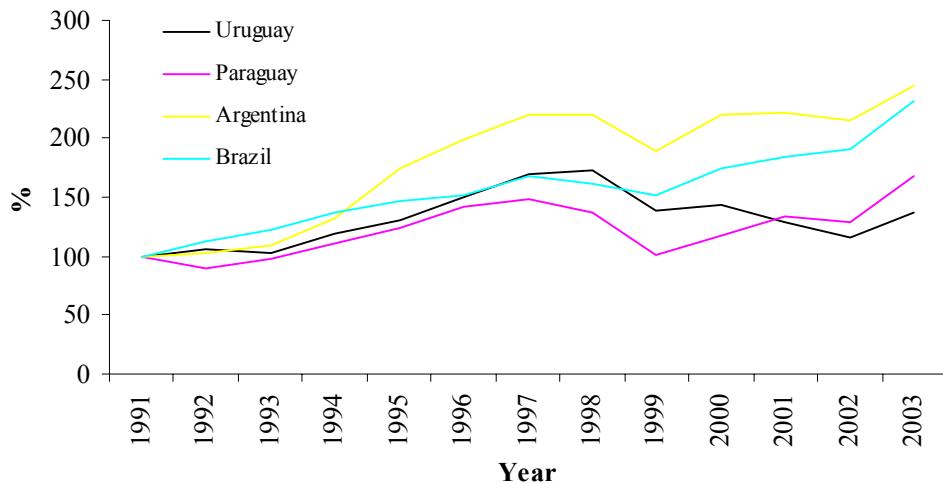
An alternative, if less formal, evaluation of the degree of symmetry of external shocks to an economic region may be based on the trends of a set of indicators such as the current accounts, the country risk and the export performance. The analysis of the current accounts shows that these perfectly reflect access to international financial markets. As such, we can see that during the 80s (especially 1982, date of the Mexican default) countries were forced to experience surpluses. At the beginning of the 90s, the external conditions changed dramatically and sizeable amounts of funds became available to emerging markets. As such, the current accounts of Mercosur countries showed growing negative results during a great part of the decade (Graph 14). The situation started to change in the second half of the 90s and beginning of the 00s. The *sudden stop* in capital movements to the region and the crisis in Argentina led to a sharp turnaround in the current account balances (into surplus) of the region in 2003. We also observe a strong correlation for exports (Graph 15).

In turn, the increase in the correlation of shocks that shows in the recent period and the common impact of the international environment may indicate that the costs of exchange coordination have diminished through time.

Graph 14
The evolution of current account (% of GDP)



Graph 15
Exports (1990 = 100)



C. What is the impact of real exchange rate volatility on intra regional trade?

To define the type of exchange rate coordination it is important to determine how harmful the volatility in the intra regional real exchange rate is in terms of trade. In particular, one must make a comparison with the volatility in the extra regional exchange rate and its impact on the extra regional trade. For instance, if only intra regional volatility matters, then there is an incentive to coordinate intra regional exchange rates and as such, the fixation of the rates in terms of the other countries currencies may be a good option. In such a case, Central Banks should maintain foreign reserves in terms of the other's countries currencies.

The evaluation of the cost of the volatility of regional bilateral real exchange rates requires an absolute measure of volatility as well as the degree of intra-regional interdependence. In graph 16 we show that the intra-regional trade in Mercosur has increased, but is still much lower than in the EEC in the 1980s when the EMS was launched. It thus appears that the expected (intra-regional) gains from exchange rate coordination should be lower in Mercosur than in Europe. On the other hand, bilateral real exchange rate volatility is much higher (Licandro Ferrando, 2000) in Mercosur, compensating for the latter weaker effect.

Graph 16
Exports to partners as a share of total exports

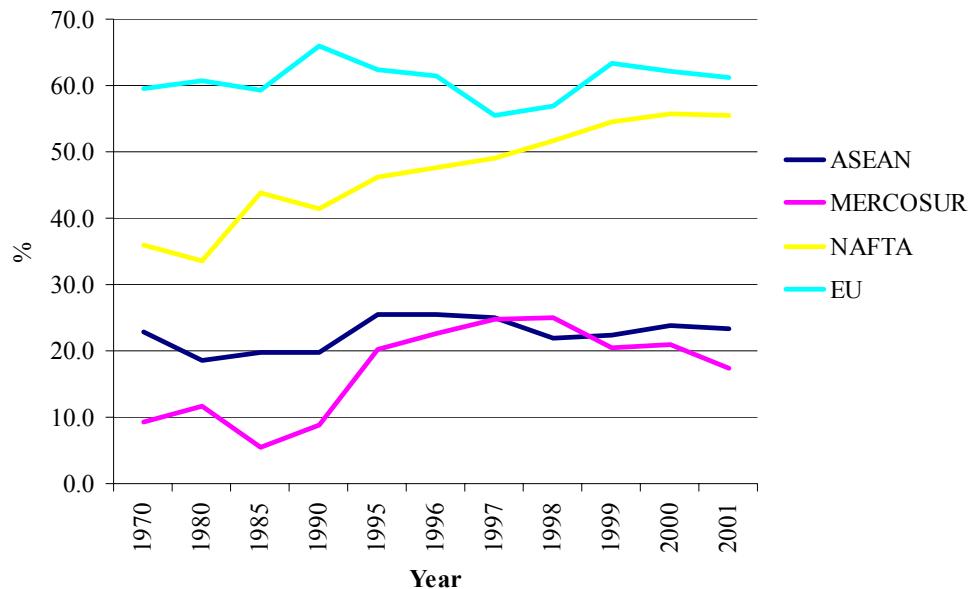


Table 2
Total Exports as a % of GDP

| | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 |
|------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Argentina | 5.5% | 6.2% | 8.1% | 8.7% | 9.0% | 8.8% | 8.0% | 9.3% | 9.9% | 25.0% |
| Brazil | 8.8% | 8.0% | 6.6% | 6.2% | 6.6% | 6.5% | 9.2% | 9.2% | 11.4% | 13.5% |
| Paraguay | 10.5% | 10.4% | 10.2% | 10.9% | 11.4% | 11.9% | 9.6% | 11.3% | 14.1% | 13.3% |
| Uruguay | 11.0% | 10.9% | 10.9% | 11.7% | 12.6% | 12.4% | 10.7% | 11.4% | 11.0% | 18.8% |
| Average | 9.0% | 8.9% | 9.0% | 9.4% | 9.9% | 9.9% | 9.4% | 10.3% | 11.6% | 17.6% |
| Weighted Average (GDP) | 7.8% | 7.5% | 7.1% | 7.0% | 7.4% | 7.3% | 8.8% | 9.3% | 10.9% | 15.6% |

Table 3
Exports to the member countries as a percentage of GDP

| | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 |
|------------------------|------|------|------|------|------|------|------|------|------|------|
| Argentina | 1.6% | 1.9% | 2.6% | 2.9% | 3.3% | 3.1% | 2.5% | 3.0% | 2.8% | 5.5% |
| Brazil | 1.2% | 1.1% | 0.9% | 0.9% | 1.1% | 1.1% | 1.3% | 1.3% | 1.2% | 0.7% |
| Paraguay | 4.2% | 4.8% | 5.9% | 6.8% | 6.1% | 6.2% | 4.0% | 7.2% | 7.4% | 7.7% |
| Uruguay | 4.7% | 5.1% | 5.1% | 5.6% | 6.2% | 6.9% | 4.8% | 5.1% | 4.5% | 6.1% |
| Average | 2.9% | 3.2% | 3.6% | 4.1% | 4.2% | 4.3% | 3.1% | 4.1% | 4.0% | 5.0% |
| Weighted Average (GDP) | 1.4% | 1.4% | 1.5% | 1.6% | 1.8% | 1.8% | 1.8% | 1.9% | 1.9% | 1.8% |

Table 4
Member country's share in total exports

| | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 |
|-----------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Argentina | 28.1% | 30.3% | 32.3% | 33.2% | 36.3% | 35.6% | 31.2% | 31.9% | 28.2% | 22.2% |
| Brazil | 14.0% | 13.6% | 13.2% | 15.3% | 17.1% | 17.4% | 14.1% | 14.0% | 10.9% | 5.5% |
| Paraguay | 39.6% | 46.2% | 57.4% | 62.8% | 53.7% | 51.7% | 41.5% | 63.6% | 52.4% | 58.1% |
| Uruguay | 42.5% | 47.0% | 47.1% | 48.1% | 49.7% | 55.4% | 45.0% | 44.6% | 40.8% | 32.6% |
| Average | 31.0% | 34.3% | 37.5% | 39.9% | 39.2% | 40.0% | 33.0% | 38.5% | 33.1% | 29.6% |
| Weighted Average (GDP) | 19.6% | 19.8% | 19.3% | 20.9% | 23.0% | 23.3% | 20.9% | 20.7% | 17.7% | 9.6% |

IV. THE DESIGN OF MACROECONOMIC COORDINATION POLICIES IN MERCOSUR

In this section we will combine the lessons concerning the European experience and the disparities found concerning Mercosur countries, to make a proposal for macroeconomic policy coordination. In particular, we will say in which areas should the coordination effort advance (notably the exchange rates, the fiscal front, etc.) and in which degree. We will also say which steps do countries have to follow in order for the policies to be effective and which institutions must be created to put them in practice. The way in which this coordination may endogenously reduce the original disparities will also be analyzed.

At this early level, we can already advance some important points to be discussed in the paper. These concern the appropriate way to conduct the exchange rate policy, the importance of fiscal elements in the macroeconomic convergence criteria, the occurrence of financial crisis and its impact on policy coordination and finally, the design of enforceability mechanisms to make countries respect the coordination policy rules.

A. How to coordinate the exchange rate policy.

We have already mentioned that the exchange rate policy was a central element since the beginning of the European Community. We also know that the volatility of real exchange rates seems to be very important in the region and that this could be very detrimental for commercial trade. These elements push for the reduction of the exchange rate volatility to have a significant role in the coordination process. Of course, and contrary to the European case, Mercosur countries are subject to important (internal and external) shocks that may call for a more flexible coordination system than in that case.

On the other hand, theory and experience have both shown that highly unstable exchange rates within the framework of integration agreements lead to economic and political

problems. Devaluation of one partner's currency, often the result of a prior unsustainable appreciation, is seen as opportunistic behavior and triggers protectionist reactions and political complications that conspire against the integration process. That was one of the main reasons for the European Union's adoption of a single currency and is also a strong reason to coordinate exchange rate policy in Mercosur.

Even if the above arguments favor the road for the coordination of exchange rate policies, implementation problems abound. Given the long history of monetary disorder and balance of payments crisis in the region, exchange rate coordination may show a severe lack of credibility, even more so than the European Union has suffered in the past. Furthermore, a high probability of occurrence of asymmetric shocks may require adjustments of the nominal exchange rates in the future. Thus, the region may need a regime of flexible exchange rate coordination with wide bands to accommodate disturbances. But, on the other hand, flexibility in the view of laxist policies in the past may signal low commitment contributing to a low credibility bias and higher risk of speculative attacks.

Another fundamental issue to account for in the analysis of macroeconomic coordination concerns the role of extra-regional currencies, in particular the dollar. Dollarisation is an important feature of the economics of Mercosur, through its role in the private portfolios and the public debt in foreign currency (or bonds indexed to the dollar), as well as through the price of commodity exports. Sharp changes in the parity of the domestic currency with the dollar will thus have an important impact on the macroeconomy. It is not the case in the European environment. Under conditions of a high degree of dollarisation any strategy of exchange rate coordination should restrain the variability of the parity with the dollar.

B. The importance of fiscal elements in macroeconomic coordination

Fiscal convergence was also a key component in the European case. Specifically, in the Maastricht Treaty it is held that countries can not have fiscal deficits of more than 3% of GDP and that government debt can not exceed 60% of GDP. Even if in the current situation Mercosur members enjoy a relatively comfortable fiscal situation, we can not exclude the possibility that a new foreign capital entry or that the inflationary tax would be used again to finance such deficits. As such, and given the inflationary past of the region, it seems that the search of specific limits for fiscal deficit, public indebtedness and inflation should also be an important component in the Mercosur case. Also, bearing in mind the region's vulnerability, fiscal deficit and debt levels may have to be lower than those set in Europe ("low debt" constraint).

C. The occurrence of financial crisis and its impact on policy coordination

The occurrence of financial crisis is also a distinctive feature of the region. These occur in a context in which financial interdependence (contagion problems) seems to be even

more important than trade interdependence. Consequently, financial instability of any given partner is clearly a problem for the entire Mercosur and it is one that macroeconomic coordination could help to mitigate. Then, it may be very valuable to think of the determinants of such crisis, in order to design regional mechanisms that could be implemented in order to prevent them to occur.

In particular, we can think of information exchange and joint economic surveillance, regional financing arrangements, the coordination of banking regulations (finance cooperation), and the setting of limits for the current account deficit and short term external borrowings. In this respect, the analysis of the experience of the Association of Southeast Asian Nations (ASEAN) since the financial crises of 1997 seems to be very useful.

D. The design of enforceability mechanisms to make countries respect the coordination policy rules

In this subsection we address the problem of enforceability of the rules embedded in the coordination effort in Mercosur. From the European experience we know that the Maastricht Treaty empowered the European Council to impose sanctions to those non complier countries, in the form of a non – interest bearing deposit which was converted into a fine after two years, unless the excessive deficit has been corrected. The problem then arises of how to design incentives to keep countries committed even in different circumstances. In the case of Mercosur the problem is very important because countries do not have credible institutions and because the region faces important shocks that may produce important deviations of the targets.

It then seems that the incentives in the Mercosur case will have to be strong enough to keep countries committed even in different situations. As was already mentioned, in Europe the incentives were based on: losing face if they did not participate in the process (as was the case in France in 1983); strong trade interrelationships, which threw a very negative light on any given partner's instability (especially with exchange rates); and economic and political sanctions for not meeting targets. In the Mercosur case these elements are present in a by far lower degree. As was already shown, even if intra regional trade has grown importantly since the beginning of the 90s, the level of interdependence seems still to be low. On the other hand, there is no "reputation cost" for not complying with a regional level agreement.

V. CONCLUSION

BIBLIOGRAPHY

- Bayoumi, T. and B. Eichengreen: "One money or many?. Analyzing the Prospects for Monetary Unification in Various Parts of the World". *Princeton Studies in International Economics* No 76, 1994.
- Bofinger, Peter and Heiner Flassbeck: "The European Monetary System (1979-1988). Achievements, flaws and applicability to other regions of the world". University of Würzburg. Unpublished Manuscript, 2000.
- Carrera, Jorge, and Federico Sturzenegger: "Los resultados de la integración en el Mercosur". In Jorge Carrera and Federico Sturzenegger (eds.), *Coordinación de políticas macroeconómicas en el Mercosur*. Fondo de Cultura Económica, Buenos Aires, 2000.
- Carrera, Jorge, Demian Panigo and Mariano Feliz: "Economic integration and interdependence: The Mercosur case. CACES, Universidad de Buenos Aires, 1998.
- Carrera, Jorge, Eduardo Levy Yeyati and Federico Sturzenegger: "Las perspectivas de la coordinación macroeconómica en el Mercosur". In Jorge Carrera and Federico Sturzenegger (eds.), *Coordinación de políticas macroeconómicas en el Mercosur*. Fondo de Cultura Económica, Buenos Aires, 2000.
- De Grauwe, Paul: "Towards EMU without the EMS". *Economic Policy*, No. 18. April, 1994.
- De Grauwe, Paul: *The Economics of Monetary Integration*. Oxford University Press, 1997.
- Gros, Daniel and Niels Thygesen: *European Monetary Integration. From the European Monetary System to Economic and Monetary Union*. Longman, United Kingdom, 1998.
- Kenen, P.: *Economic and Monetary Union in Europe: Moving Beyond Maastricht*. Cambridge University Press, 1995.
- Lisandro Ferrando, Gerardo: "Una área monetaria para el Mercosur". In Jorge Carrera and Federico Sturzenegger (eds.), *Coordinación de políticas macroeconómicas en el Mercosur*. Fondo de Cultura Económica, Buenos Aires, 2000.