

**Crises? What Crises?
Escudo from ECU to EUM**

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CRISES? WHAT CRISES? *Escudo* from ECU to EMU*

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The research described in this paper reflects my contribution to a comparative project on **Short Term Capital Flows and Balance of Payments Crises**, presented at the World Institute for Development Economics Research in Helsinki in June 1996 and at the Institute of Development Studies, University of Sussex on May 1, 1997. The arguments were also presented at a CEPR lunchtime meeting on **EMU: Who Will Be In, Who Will Be Out And How They Will Get Along** held at the Royal Bank of Scotland in London on October 10, 1997 and at the **8th International Forum on Latin American Perspectives**, held at the OECD in Paris on November 21, 1997. The paper was finalized four years to the day after I was relieved of my position as minister of finance, circulated for comments to other past policymakers, and then revised on the fifth anniversary of the restoration of convertibility. Comments from participants and from Nova colleagues Anibal Cavaco Silva, Luis Catela Nunes and Miguel Rocha de Sousa are gratefully acknowledged, with the usual caveat.

ABSTRACT

Portugal joined the European Community in 1985, when the national economy was subject to an inflationary environment and recurrent political and financial crises. In April 1992, only a few months before the pound and the lira floated, the *escudo* pegged to the ECU. The timing of entry is now bearing fruit as the *escudo* is likely to be part of the euro with less than seven years in the Exchange Rate Mechanism of the European Monetary System (ERM). This was achieved without speculative attacks even though the change in regime towards stability-oriented macroeconomic policies was completed when the ERM parity grid experienced successive crises.

Bringing the "stability culture" to the southwestern periphery in the early 1990s was politically controversial because economy and society were so used to currency devaluation. Before joining the ERM, the exchange rate regime featured the successive imposition and relaxation of capital controls. Wage increases and interest rates diverged in 1990/91, before converging to the average of the European Union. The deficit rose in 1991 and in 1993/94, due to electoral and business cycles, while a "double dip" in relative labour productivity growth confused firms and trade unions used to the high positive rates of the late 1980s.

Tension between the treasury and the central bank accompanied the move to full currency convertibility in December 1992. The source of tension shifted then to the competence for banking supervision and lasted until June 1994. The proper response of the *escudo* to successive realignments of the *peseta* also caused strain until it became clear that the chosen policy did not generate expectations of further depreciation. Indeed the covered interest differential against the dollar and the DMark declined steadily from a 1991 peak and volatility in the daily *escudo*-DMark rate is now lower than when the central bank controlled the currency and attempted to shadow the DMark.

The understanding by the Portuguese authorities of the ERM code of conduct as they prepared to join after the 1991 general elections made it possible to acquire financial reputation very quickly. The multilateral surveillance procedures it implies enhanced national credibility abroad even before the policy was accepted at home.

As the prime minister brought continuity to the gradual regime change, it was possible for his successive finance ministers to alternate in implementing structural reforms with high external visibility and holding the line domestically. The reconquest of stability implied disposing of the teams who carried out the reforms in the vicinity of local elections in 1989 and 1993 to stress the predominance of domestic objectives. The socialist government has fully accepted the new economic regime and now claims the euro as one its great achievements!

Given the fact that there were no reforms before the reshuffle preceding the 1997 local elections, the pressure to step up structural reforms should increase in the run up to EMU. Otherwise the benefits of joining the euro might be "held up" by the inability to use the stability culture as a source of enhanced competitiveness for Portuguese business worldwide.

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1. INTRODUCTION

In 1985, when Portugal joined the European Community, the national economy was subject to an inflationary environment and recurrent political and financial crises. There were elections in October and the new prime minister - who had just become leader of the social-democratic party - came from head of research at the central bank. When elections were called in July 1987, he managed to secure a majority in parliament and to increase it slightly in the October 1991 general elections. His reform-minded governments, including four ministers of finance, implemented a multi-annual fiscal adjustment strategy (MAFAS) and pegged to the ECU in 1992¹.

This combination of political and financial stability was not discontinued after the social-democratic prime minister refused to run again in the October 1995 general elections and the socialist party won. The new prime minister, an engineer lately converted to the stability culture, has expressed a firm commitment to Economic and Monetary Union (EMU) but has not shown the reformist impetus of his predecessor during the first half of his term in office.

As the convergence criteria set in the 1992 Union Treaty are being met, the European Council is likely to include Portugal among the states qualifying for EMU in the Spring of 1998. The expectation of sustained convergence is already reflected in *escudo* interest rates and exchange rates. The currency has not been a preferred target of speculative attacks even though the change in regime towards stability-oriented macroeconomic policies was completed when the Exchange Rate Mechanism of the European Monetary System (ERM) experienced successive crises. Moreover the change suffered reversals and was accompanied by domestic political controversy.

This paper argues that the successful acquisition of financial reputation such a short time after restoring convertibility was due to the ERM code of conduct. This code of conduct reflects the conditions under which the ERM can be seen as a convergence instrument, as shown in Braga de Macedo and Carré (1994)². The multilateral surveillance procedures the ERM code of conduct implies enhanced national credibility abroad even before the policy was accepted at home. The expectation is not only that Portugal will meet the criteria for EMU entry in January 1999 but also that the stability culture, accepted by the two main political forces, is unlikely to be questioned in future elections. This explains the absence of currency crises such as the ones which hit emerging markets (from Latin America to Asia, let alone Central Europe) even when the international monetary system is not under stress. As the preference for stability is revealed at home and abroad, the benefits of policy credibility to economic activity and employment become more apparent.

The size of the benefits from credible policies is especially hard to pin down in developing and transition economies because the structural data is less reliable than in mature economies. The ERM code of conduct and the stability culture on which it is founded may

¹ In Braga de Macedo (1996) I evaluate the performance of each one of the four terms, including my own. The research is extended and updated in Rocha de Sousa (1997). José Braz, then Secretary of State for the Treasury, presents the MAFAS in Braz (1992). The MAFAS is called for in Bliss and Braga de Macedo (1990). Further analytical underpinnings can be seen in Braga de Macedo and Gaspar (1990). Victor Gaspar, head of research at the central bank, was head of research at the ministry of finance from 1990 to 1992. Fiscal developments are described in Auerbach et al. (1997) as background for the presentation of generational accounts.

² Hervé Carré, director for monetary affairs at the EC, was seconded to the Portuguese ministry of finance in 1992 and 1993, and served as adviser on international monetary matters, especially ERM entry.

also appear divorced from more volatile economic and political cultures. Since the Portuguese economy and polity has shared some of these features less than 10 years ago, EMU controversies are briefly touched upon in section 2.

Section 3 shows how monetary myths rooted in one hundred years of currency inconvertibility justified the fear that the *escudo* would suffer by contagion with the *peseta*. This contagion effect, reflecting imperfect market information about peripheral economies devoid of financial reputation, is sometimes called the "geographic fundamentals". The pattern of government budget deficits, of productivity growth, of wage increases and of interest rates relative to the union average and other macroeconomic indicators of the regime change are also presented.

Such a change, which became possible after a constitutional amendment allowed privatizations in 1989, was not immediately associated with the quest for financial stability. Moreover, as argued in Section 4, it was nearly reversed in 1990 and 1991, and was not accepted at home until well after it had become visible in a declining covered interest differential of the *escudo* against the dollar or the DMark.

The change in economic regime featured successive imposition and relaxation of capital controls. The move to full currency convertibility in 1992 was followed by tension between the treasury and the central bank about banking competition and supervision. But public opinion did not become aware of the change until after the former prime minister was defeated in his bid for the presidency of the republic in January 1996. Then all levels of government came under socialist party control or influence for the first time in over 15 years.

The regime change can also be inferred from the stochastic properties of the daily *escudo*-DMark rate over the last ten years. The main turning points are the beginning of stage I of EMU in July 1990, ERM entry in April 1992, the widening of the bands in August 1993 and the last realignment involving the *peseta* and the *escudo* in March 1995. The volatility of the first period (the last years of the crawling peg regime) is similar in magnitude to the one achieved since the last realignment, even though the low volatility of an inconvertible currency is not market determined and therefore is partly artificial. Also, the shadowing of the ECU (specifically of the DMark) before joining the ERM was almost as volatile as the period after the widening of the bands in August 1993, with a rising rather than declining exchange risk premium.

Section 5 concludes, stressing the absence of structural reforms to lock in the benefits of EMU in the first two years of the socialist government and its dangerous consequences for the attractiveness of Portugal as a place to invest in and from.

2. EMU CONTROVERSIES

The economics profession recognizes that a stability oriented policy based on the respect of property rights and open markets is best for growth. Indeed most economists favor a medium term orientation of macroeconomic policy, coupled with measures designed to improve the functioning of factor markets and of the public sector, in mature, transition and developing economies alike³.

This is the way in which geographical peripheries can acquire global reputation. In a sense, they overcome the cost of physical distance through financial proximity. Of course initial and

³ See e.g. Sachs and Warner (1995) and Tavares and Wacziarg (1996).

terminal conditions matter as much as the capacity to transform. EMU controversies often reflect different assumptions about each one of these three factors.

A stability oriented policy is in agreement with the recommendations of international and regional organizations such as the International Monetary Fund (IMF), the Organisation for Economic Cooperation and Development (OECD) or the European Bank for Reconstruction and Development (EBRD). These are rules of monetary common sense going back to the gold standard, in connection with which they have been called "rules of good housekeeping"⁴.

Very much along the same lines, "sustained regime change" was identified as a condition for peripheral nations or regions to benefit from EMU in **One Market, One Money**, a report published by the services of the European Commission (EC) in 1990. This argument was especially strong under the limited labour mobility and flexibility, coupled with low fiscal redistribution among states, which prevails in the European economy. In these circumstances, exchange rate adjustments may become necessary to eliminate declines in competitiveness but they may not succeed in changing relative prices. The greater the underlying capital mobility and the more likely the repetition of exchange rate adjustments, the less effective a devaluation will be, even if it follows the ERM code of conduct. The same report used survey data to suggest that firms did not expect devaluation to solve their problems but rather thought that credit constraints were a more severe hindrance to expansion at the peripheries than at the center⁵.

More recently, the same services have shown that the retroactive application of the **Stability and Growth Pact** which is to be introduced together with the euro on January 1, 1999 would not have exacerbated recessions over the 1961-97 period⁶. Most member states changed their economic regime towards fiscal discipline and stable prices after realizing that they could no longer improve export competitiveness by engineering exchange rate devaluations. This followed the creation of the ERM in 1979, with Netherlands foregoing devaluation after 1982 and France after 1983. Poorer states took longer to be convinced but the economic regime did change in Ireland after 1987, in Spain after 1989 and in Portugal after 1992. In Greece and in Italy the changes are even more recent, but impressive nonetheless.

Italy in particular managed to fulfill the deficit criterion in 1997. Sitting at the union's political core but having been one of its major financial peripheries, Italy could not be in the "pre in" group alone with Greece and the "opt outs" (including Denmark, Britain and by extension Sweden) without endangering the stability of the entire process. Since the "social" emphasis of the French government elected in May 1997, the likelihood of Italy joining is almost the same as that of Portugal or Spain. Market sentiment remains such that the euro is perceived to be too weak if Italy is in, but the major uncertainty is no longer about whether or not EMU will begin on time. Rather it is about how long EMU will last.

Doubts have been shifting from the financial peripheries to the core as the specifics of the institutional set-up emerge. Moreover, segments of European public opinion give more salience to the dismal record on unemployment than to the possible benefits of EMU. In such an environment, national governments could use EMU as an excuse for further procrastination on essential structural reforms which are thought to exacerbate political instability and threaten to derail the project.

⁴ Bordo and Rockoff (1995). This is especially appropriate given that it is the original meaning of economics.

⁵ EC (1990), especially Chapter 9, and Bliss and Braga de Macedo (1990) cited therein.

⁶ Buti et al (1997). The relevant documents are in EC (1997b). I owe these references to Hervé Carré.

Fears remain that the timing and sequencing of macroeconomic stabilisation, liberalisation and structural reforms dictated by international financial markets might generate political instability and social strife. This could ultimately jeopardize the combination of market economy and political democracy which became the norm throughout Europe after the collapse of the Soviet Union.

A stability-oriented policy allows the effects of replacing national currencies with the euro to differ not so much spatially by the geographical location of the state, but rather according to its credit ratings. The implication is that firms located in the peripheries may benefit more than the ones located in the core as long as national and regional policies are credible enough. This perspective on the benefits of EMU is forward-looking, since ratings reflect the ability to service debt in the future.

The perspective also assumes that the "rules of good housekeeping" of the gold standard are matched by the euro and the stability pact together – which may then be called "euro standard". While some features are unclear as yet (i.e. is the European central bank accountable to the European parliament, national parliaments, both or neither? who determines the euro exchange rate against the dollar or the yen?), such design problems are likely to be overcome by appropriate institutional evolution and awareness among members of the benefits of cooperation.

The same will be true of the transition to EMU, after the countries are chosen and even after their currency conversion rates with the euro are fixed. The choice of countries and the announcement of bilateral parities between their currencies will be simultaneous, to discourage speculative attacks on the parities perceived to be weaker, as agreed in September 1997 at the informal ECOFIN of the Luxemburg presidency⁷. Greater resort to financial instruments and more effective central bank cooperation may thus suffice for core currencies.

Even though the ERM will remain as a convergence instrument for the "pre-ins", however, currencies in the peripheries will continue subject to the lingering influence of "geographical fundamentals" and other monetary myths. Myths from a misperceived historical experience interact perversely with geography since the reputation of a state in the peripheries of international currency standards may differ from that of a state in the core. This was already true in the geography of the gold standard and it basically reflects the role of politics. In effect, the interaction between the commercial interests of the middle classes and the diplomatic aspirations of the central banks was essentially political.

Enhancing price and exchange rate stability and buttressing the soundness of public finances is a formidable task outside the stable core of the international currency standard. In countries with histories of high inflation, neither the social partners nor public employees automatically appreciate the benefits of the regime change that the policymakers are attempting to engineer.

Errors in policy appraisal can unduly raise the costs of reform, when information about the change in regime is not readily available to international financial markets. This can, once again, be a reflection of "geographic fundamentals", of historical myths or both.

⁷ Begg et al (1997) had drawn attention to the problem in the Spring.

Repeated market tests of the authorities' commitment to exchange rate stability may result from this imperfect information⁸. If these tests of the authorities resolve greatly increase the cost of defending the exchange rate, they can lead to policy reversals. Conversely, if the volatility of the exchange rate is a direct consequence of system turbulence, market tests will be short-lived and the threat of a reversal will become less and less credible, both abroad and at home.

This is one reason why the Union Treaty instructs the European Council to issue broad guidelines against which policy and performance in the member states are to be gauged. These were implicit in the ERM code of conduct and were therefore harder to monitor before the Treaty came into force in November of 1993. With such guidelines at hand since the European Council meeting in Brussels shortly before the beginning of stage II of EMU, the markets have been better able to appraise the progress of policy reform. The "euro standard" stands on this code of conduct, a process of multilateral surveillance among union officials whose interaction with national officials should be accountable in their respective parliaments and in the European parliament.

The time it takes for a nation to acquire a reputation for financial probity varies but it typically involves several general elections where alternative views of society may confront each other. The number of years most frequently cited in financial circles is 10. This suggests that it may be better to take time and set on foot a self-reinforcing process of reform than to attempt a succession of overly ambitious and excessively drastic measures that will ultimately fail, damaging policy credibility.

To construct a social consensus domestically, credible signals that the authorities are committed to reform may be needed. If stable democratic governments succeed in implementing reforms which help to achieve convergence between poorer and richer nations and regions, they can set off a self-reinforcing virtuous cycle of stability and growth. On the other hand, there will be a vicious cycle if short-lived governments, fearing the social conflicts associated with reforms, delay implementation and impair convergence.

The initial conditions a government inherits may limit the alternatives at its command. For example, the 1992-93 recession aggravated the plight of Europe's unemployed, making it more difficult to reduce the generosity of unemployment benefits. At the same time, by demonstrating the costs of labour market rigidities and the importance of competitiveness at the firm level, the experience of the 1992-93 recession may have actually encouraged structural adjustment and, ultimately, cohesion. If reforms are enduring, employment-generating growth will be stronger. This will brighten the prospects for a durable "euro standard".

The terminal condition of EMU, and the currency stability it delivers, then feed back to a more employment-friendly economic environment in a virtuous cycle. Conversely, when terminal conditions lack credibility, a "stop-go" convergence process that hinders change may appear. Temporary, unaccountable shifts in sentiment in financial markets thus may disrupt the convergence process permanently. A government can only protect itself from this threat by acquiring a reputation for subordinating other goals of economic policy to the

⁸ Flood and Marion (1997) and Bordo and Schwartz (1997) show that while speculative attacks become self-fulfilling, fundamental factors are likely to be present when they succeed. This is also argued by Paul Krugman in *Slate* (August 14, 1997) where he concludes a column titled "Balkanism" as follows: "There is a case to be made - an unfashionable case but not a totally crazy one - that it is worth forgoing the benefits of capital inflows to avoid the risks of capital outflows".

pursuit of convergence. Here again, multilateral surveillance can play a role in providing timely information on national economic policies in a way that enhances the reputations of deserving governments. The same is true of the adoption of appropriate budgetary procedures at national and union levels.

The "euro standard" cannot replace reform in labor markets, social security, education and training etc. Only if reforms take place will medium term credibility be ensured so that replacing national currencies with the euro will have effects according to the credit ratings of nations, cities and firms rather than their geographical location. Indeed if countries use EMU to procrastinate on their unpopular reforms, the "euro standard" will be flawed and the benefits of the stability culture may vanish both at the core and at the peripheries. The "hold up" problem in the industrial organization literature, mentioned in this connection by Buiter and Sibert (1997), suggests the danger of a "euro hold up".

3 THE *ESCUDO* – A SOLITARY CURRENCY

The inheritance of the *real* (Portugal's currency from 1435 to 1911) has been forgotten, even when it remains most relevant to current monetary developments. Except perhaps in the traditional link to sterling - which by the early 1990s was entirely lost - the fact that Portugal joined the gold standard in 1854, well before any other European country, is equally ignored. A trade off between political and financial stability is indeed present in the "hundred years of currency solitude" between 1891 (the exit from the gold standard, in the wake of the Barings crisis and of a British ultimatum on colonial issues) and 1992 (ERM entry), but it is due to the protracted combination of financial discipline and political stability in a regime where political parties were banned⁹. It is neither a geographic nor an historical necessity.

The *escudo* - created after the republican revolution of 1910 - has been mostly inconvertible. Two revolutions later, a carefully engineered attempt at restoring currency convertibility did manage to secure exchange rate stability against the dollar. This lasted until the fourth revolution of 1974. From the rebirth of democracy until accession to the European Community in 1985, widespread nationalizations were decided and mounting budget deficits observed. Thanks to a combination of discrete devaluations and of a crawling peg, the ECU parity rose from 30 to 130 *escudos* during that period. The rate of crawl slowed subsequently and, in September 1989, the *escudo* entered the ECU basket at a rate of 172.

On 4 April, 1992 - the weekend following the approval in parliament of the 1992 budget - the government applied to join the ERM at a rate of 180 *escudos*, a parity declared in terms of ECU rather than DM. While welcome by the EC, the innovation was frowned upon by the Bundesbank. As it turned out, the prior declaration of a parity was what generated most resistance in the monetary committee (whose members were acting as personal representatives of the ECOFIN including central bank governors). Fearing that, on the eve of the British general election, a weaker *escudo* might be contagious to sterling, the committee finally agreed on the notional central rate of 178,735 - that is the one prevailing since the entry of sterling in October 1990.

⁹ The arguments in section 2 are further developed in Braga de Macedo, Eichengreen and Reis (1996) and in Branson, Braga de Macedo and von Hagen (1997).

¹⁰ Braga de Macedo, Ferreira da Silva and Martins de Sousa (1997) attempt to assess the inheritance of the *real*. The different combinations of convertibility and stability since the gold standard are analyzed in Braga de Macedo (1995).

The social partners had been briefed on Friday afternoon and the government called for a parliamentary debate the following week. There the opposition criticized the move, claiming that Britain had presented another "ultimatum" (like in 1890!). Public opinion was surprised. The view that this was a "vanity move" by the prime minister, presented by a disgruntled former colleague from Nova, became widespread, suggesting that the government was unable to explain the regime change domestically even though the outcome of the Danish referendum and the severe recession would have made it impossible for the *escudo* to join the original ERM. It would have therefore traded with the Greek drachma, rather than with the *peseta*. Those are of course the currencies of the two other recipients of the cohesion fund whose fiscal problems made them unlikely candidates for the first round of EMU¹¹.

The novelty of combining financial discipline and political stability in a democracy may have made the timing of entry less obvious at home than to market participants abroad. In any event, the *escudo* has kept a central rate around 196 since the realignment of the *peseta* in March 1995 and it has been more likely to become the euro on 1 January, 1999 than any other currency outside the traditional DM core area (France, Benelux and Austria)¹².

The successful transition of the *escudo* from ECU to EMU remains unknown, even in Portugal. To begin with, the consequences for firms, regions and cities of replacing the *escudo* with the *euro* have only begun to be appreciated: there are only three internationally rated banks and only one subsovereign agency, the Azores.

ERM entry left the domestic financial press largely indifferent: there are still very few newspaper sources, let alone academic references to the effects of a decision which the then prime minister repeatedly stated as being one of the most important reforms he implemented during his decade in office¹³. The reason for this neglect may be the result of monetary myths rooted in the fact that there was a succession of four victorious revolutions this century. More specifically, it may be due to the fact that the domestic stability culture was paradoxically recovered at a time of system instability. Alternatively, it may be due to the hope that protectionist forces held for some years after the fact that it could be reversed – along the lines of the pound sterling, forcibly ejected from the ERM in September 1992, along with the lira.

A fear of "geographic fundamentals" involving Spain does exist in its Western neighbour. One of the major consequences of this fear is the prevailing expectation of an unfavourable future performance with unemployment, against the evidence of the last ten years. As a consequence of the severe structural adjustment agreed in 1983/85 with the IMF, Portugal has recorded a rate of unemployment about one third that of the rate in neighboring Spain. Even the perceived link of the *escudo* with the *peseta* does not fully explain why international financial markets believed in the regime change almost five years before trade unions, employers associations and citizens.

Why did Portugal's regime change remained misunderstood by public opinion until after the last general elections in October 1995? Aside from the combination of recession and system

¹¹ Connolly's vitriolic book against the ERM argues that I tried to "bluff" the Monetary Committee with the regime change so as to make it accept *escudo* entry.

¹² See note 32 below. The rate remained 195,792 with the entry of the Finnish mark on 14 October 1996 and increased to 197,398 with the return of the Italian lira on 23 November.

¹³ The weekly *Semanário* reproduced a translation of excerpts from the book cited in pie II, but did not include Connolly's account of my departure "on the say-so of Portuguese banks". On the 5th anniversary of ERM entry, a short article was published in a major daily.

turbulence, there were domestically generated disturbances which threatened to reverse the change and certainly obscured its significance.

From 1991 to 1995, the effects of the European recession interacted with the electoral cycle. As shown in Figure 1, except for 1991 (elections) and 1993/94 (recession), the deficit has a downward trend. Before 1997, the deficit was above the ceiling of 3% of gross domestic product imposed by the Union Treaty - even though in 1989 the introduction of comprehensive income taxation led to extraordinary revenue increases¹⁴. The pattern of relative productivity growth shown in Figure 2 suggests a double dip recession, in 1991 and 1994, when productivity growth in Portugal was 2% below the EU average. In 1991 this was mostly due to high employment creation, whereas in 1994 it was a consequence of a delayed recovery from the 1993 trough.

The recession hit harder in 1993 than in 1992¹⁵. The reason may be that, against the pessimism brought about by the delay in ratifying the Union Treaty after the negative Danish referendum, Portuguese entrepreneurs believed that the Angola market would pick up after the elections, and this turned out to be an illusion. Recession lasted longer than in Portugal than in other continental European countries. The recovery did not trickle down until late 1995. Only then did the hope that policy would revert to inflation cease to be held by major political forces or social partners.

The regime change featured alternative imposition and relaxation of capital controls and retreat from, then return to, international borrowing. Wage increases and interest rates converged and diverged before they converged again to the European average. This also contributed to obscure the change in regime for firms, trade unions and the general public, as shown in Figure 3, where *w* denotes wage convergence, *rs* short term rates and *rl* long term rates.

Table 1 presents the main macroeconomic indicators as averages for the period before, during and after the regime change, including the regime change without the 1991 reversal. To account for the double dip recession, the new regime after 1996 is also presented in the table according to the EC forecasts of Spring 1997. Except for the private consumption deflator, which does not show a reversal, all other indicators (including the price of gdp, not shown) reveal a better performance without the election year of 1991. The better performance is also apparent when the 1993-95 period is excluded.

Available indicators show greater current account than capital account openness: exports and imports rise from 2/3 to 3/4 of gdp from 1993 to 1997, whereas non-monetary transactions remain around 10%. Honohan (1995) shows that in 1993 there was a tenfold jump in cross border short term bank assets in *escudos*¹⁶.

¹⁴ Adjustments also apply to 1992, due to the elimination of the zero VAT rate on food, and to 1993, due to the abolition of VAT collected by customs for internal market transactions and the cyclical adjustment was significant during recession and recovery. Care should therefore be taken when interpreting Figure 1.

¹⁵ The EC forecasts of Winter 1997 show substantial revisions in gross domestic product, which affect both series. This should be kept in mind when comparing Figures 1 and 2 to Table 1.

¹⁶ From 81 to 1137 million contos. Honohan (1995) also presents the stock of foreign assets and liabilities as roughly equal to gross domestic product in 1993. Financial development has been fast, no doubt, but initial conditions are still visible, say in the pattern of payments operations. EC (1997a) shows shows a weight of cheques (80%) well above the union average (under 15%). Transfers account for 55% in the union, 23% in Spain and only 13% in Portugal, whereas credit cards are 61% in Spain, 31% in Spain and only 7% in Portugal.

Portugal was absent from international financial markets, ignoring the time honored advice that "foreign held debt is generally agreed to as necessary to firm the nation's credit abroad"¹⁷. If the efforts to bring about budgetary discipline are seen domestically as authoritarian, national cohesion will suffer and credibility abroad will be harder to establish.

The lack of credit familiarity with Portugal would have been bad enough for firms and citizens in tranquil periods. In the turbulence which followed ERM entry it was of course much worse and may have contributed to slow down the learning process, especially in the midst of a severe recession and the domestic political instability which preceded the 1995 elections. The stabilisation of relative unit labour costs followed the gyrations of the 1989-93 period.

In spite of the favourable market sentiment about the *escudo*, there are now renewed fears that structural reforms have been abandoned and that they will not be started in the run-up to the 1999 elections. The opportunity for sustained structural change afforded by the euro and the associated improvement in fiscal discipline could therefore be lost and the state would remain incapable of reforming itself in areas such as justice, home affairs, social welfare, education and others. This would be the Portuguese variant of the "euro hold up" feared by Buitter and Sibert (1997).

The absence of structural reforms is especially grave in what pertains to the public sector. The 1993 recession, subsequent slow growth and rising unemployment, and the election cycle have hindered the implementation of public sector reform - including social security - even if it remains on everybody's political agenda. Actually, the last 10 years show the unintended consequences of the ambiguous response to the challenge of European integration prevailing in the late 1980s described in Bliss and Braga de Macedo (1990).

4. ECU AND BEYOND: REVERSAL WITHOUT CRISIS

The year 1989 marks the beginning of the regime change, but only with hindsight as some ambiguity remained until beyond ERM entry. It could even be said that the acceptance of the stability culture by public opinion may have lagged until the newly appointed socialist prime minister stated his commitment to the newly named euro at the 1995 European Council in Madrid.

There were two kinds of measures. Some, like the Constitutional Amendment reversing the 1976 freeze on privatization, were public but their relation to financial liberalization was not immediate. Others, like the MAFAS presented to the EC services were relevant but not public.

In spite of these reforms, neither the government nor social partners saw EMS membership as imminent. The cabinet was reshuffled shortly after the 1989 local elections, further delaying public awareness of the ongoing regime change. Until the 1991 general elections, the central bank, whose governor came from banking, determined macroeconomic policy almost completely. The ministry of finance quietly followed the lead, but this was not acknowledged in the cabinet.

¹⁷ This quote from Alvin Hansen was used in my 1970 book on the Portuguese external debt. In 1980, I provided an interpretation of Portuguese currency experience along similar lines. Together with my EC experience between 1988 and 1991, these ideas which influenced the program of the XII government allowed me to act faster on that front. I did not, however, anticipate the resistance offered by the perceptions that "elections bring deficits" and that "stability becomes dictatorship". I show in Braga de Macedo (1996) that these perceptions acted as a break to Portugal's attempt to earn credibility abroad while selling stability at home.

In a financial system highly protected from competition and facing weak supervision, central bank policy came to depend increasingly on issuing short-term domestic debt to mop up the growing capital inflows attracted not only by the favorable investment climate but also, increasingly, by the highly remunerative real interest rates to be earned on pure arbitrage operations. In spite of strict controls on capital inflows, the central bank's foreign reserves more than doubled, from \$10 billion in 1989 to \$20.6 billion in 1991, with disastrous consequences for the bank's operating results. The bank was effectively accumulating huge dollar deposits earning 5 %, while paying 20 % on the *escudo* debt being issued to mop up the resultant "excess" liquidity and holding the nominal exchange rate fixed, so as to fight inflation!¹⁸

The tightening of controls may have helped prevent inflationary pressures from accelerating when there was a strong upward pressure on wages and a very low level of unemployment. The crawling peg policy, in place since 1977, was replaced in the Spring of 1990 - shortly after the *escudo* entered the ECU basket - by a shadowing of the DM, but the change was never announced publicly and could therefore not be interpreted as a pre-pegging exchange rate regime (PPERR). This arrangement managed by the central bank turned out to be more opaque than ERM membership. As shown in Figure 4, the real and the nominal exchange rate (against the OECD average) only stabilized after the widening of the ERM bands.

The fear that financial freedom would threaten monetary control and the soundness of the banking system was ingrained in the central bank who had always administered the exchange controls on the *escudo*. Of course there were no controls during the gold standard, but - to repeat - memory had been lost. Even the experience before 1974, when the central bank had private shareholders and the currency was stable, if not fully convertible had been forgotten or associated with the absence of political freedom!¹⁹

The virtual rule on policy making its board enjoyed in 1990-91 made it even more difficult for the institution to accept in 1992 that the restoration of full currency convertibility could be carried out before the derogation negotiated with Brussels expired, in 1995. To establish a two-way dialog between the treasury and the bank, both teams met regularly. The ministry team also met with all previous ministers of finance, where the current and several past governors were able to debate the state of the economy and the progress of convergence.

At the beginning of 1993, the central bank was publicly urged to adjust to the line of full currency convertibility. There were two implications which were not made explicit as they had been raised in the sessions with the board of the central bank allowing for greater banking competition and, if need be, letting the *escudo* leave the top of the 6% ERM band²⁰. This would lead to a decline in the cost of credit (dubbed "rental moderation" in government documents, by analogy to wage moderation) without the need to change the stance of monetary policy. The equilibrium decline in interest rates would have nevertheless the fortunate side effect of reflecting the evidence of recession which had been accumulating.

¹⁸ The cost of this policy during the period 1990-92 measured by the interest differentials turned out to exceed the structural funds received. Braga de Macedo (1996) and Auerbach (1997).

¹⁹ The December 1992 Bank Act called for greater supervision and competition and this had been discussed with the board. Unfortunately the operating procedures did not begin to change until a new vice governor was appointed in mid 1994.

²⁰ In a calculated risk, the call was made in a speech at the ministry when a number of high officials from several departments were going to be sworn in, together with a member of the central bank board, who came from industry. The presence of other cabinet members helped give viability to the event.

The resignation of a member of the central bank board who had become the most outspoken advocate of the hard *escudo* policy followed in 1990/91 gave this adjustment undertones of a crisis rather than of a natural adaptation to greater financial reputation. Thus, the socialist opposition, who was openly calling for a slower disinflation and an autonomous depreciation of the currency, was able to side with the independence of the central bank. As for the social-democratic business elite, startled by ERM entry, it suggested a reversal in the orientation of macroeconomic policy and a pressure on the monetary authority. There were no negative international effects and ERM partners knew the code of conduct would be upheld.

As there has not been a serious speculative attack against the *escudo* since the early 1920s, the domestic turbulence of March 1993 may just be another example of the resilience of monetary myths. In fact, the suggestion that the unity of purpose between treasury and central bank had been lost, represented a delayed reaction to the liberalization of capital movements to which some members of the central bank board had been adamantly opposed in August 1992.²¹ On the other side, the more flexible policy of following the *peseta*, which had begun in September 1992 would probably not have been possible to enforce without some change in the board²².

Table 2 shows the decomposition of real interest rate differentials relative to the dollar and the Dmark. The exchange risk premium of the *escudo* relative to the DMark (measured by the difference between the expected and realized depreciation) is illustrated in Figure 5. It declined as successive *peseta* realignments from 1992 to 1995 were partly followed, without inducing higher domestic interest rates. The policy of randomizing the response managed to avoid real *escudo* appreciation but did not jeopardize a recently acquired financial reputation.

In spite of exceptional high foreign exchange reserves, Portugal's external debt issues had been assigned a rating of A1 by Moody's Investors Services in late 1986 and A by Standard and Poor's two years later. The divergence between the two agencies remained until late 1991, when Standard and Poor's upgraded to A+. This is summarized in a recent report by Salomon Brothers titled **Reaping the benefits of convergence**.

A 'National Adjustment Framework for the Transition to Economic and Monetary Union' known as QUANTUM, was proposed at the beginning of stage I of EMU in July 1990. Unfortunately, it was not until after the 1991 elections that a convergence program (dubbed Q2) combined MAFAS and PPERR with capital account liberalization.

No wonder then that, in spite of Q2, the decision to request entry of the *escudo* in the ERM was a genuine surprise to most people. ERM entry was followed by the restoration of full convertibility by the central bank on 16 December. International investors were ready to believe then that economic policy in Portugal would retain a medium term orientation. The upgrading of Portugal's foreign debt to AA- was decided by Standard and Poor's in May 1993, even though the previous upgrade had been decided less than 18 months earlier. It was also the first such move since Ireland had been upgraded in 1989. This helped make the

²¹ The weekly *Independente*, which I was suing for libel on an unrelated matter, quickly pictured "the speech" as having ruined the country's reserves. In a broad ranging radio interview I gave to TSF on October 18, 1997, nearly five years after the fact, the question came up several times.

²² In May 1993 monetary policy became the responsibility of a practitioner, who went back to banking in early 1996. The policy has nevertheless remained the same: keeping the *escudo* stable in the middle of the band.

return to external borrowing more visible and Portugal was nominated by *Euromoney* "The Borrower of the Year 1993"²³.

Nevertheless, the positive consequences of the regime were largely ignored in the domestic press, or criticized at the moment of issue by protectionist forces who pointed out that the yen and the dollar were "unstable currencies"²⁴. Shortly thereafter, the deterioration in the deficit, whilst keeping expenditure unchanged, had a much greater impact domestically than the credibility earned abroad described as a "renaissance"²⁵. It may be pointed out that, contrary to previous practice where the minister of finance and central bank governor got involved in foreign debt issuing, the negotiations were conducted through the treasury services²⁶.

Inflation did decline but it remained substantially higher than abroad while the parity of the ECU remained around 10% higher than requested initially. The difficulties of the *peseta* allowed the *escudo* to realign several times during the ERM crises of 1992-93 without loss in financial reputation. Quarterly data on capital flows, presented in EC (1997a) also suggest that external credibility was achieved in late 1992 and remained unperturbed by the *peseta* realignments of 1993 and early 1995. The interpretation is confirmed by the declining covered interest differential against the dollar and Dmark and by the oscillations of the other components of the real interest differentials, the exchange risk premium and the change in the real exchange rate for each one of the ministers of finance and central bank governors shown in Table 3²⁷.

The gradual convergence path was retained in the revised convergence program (PCR) approved with the 1994 budget, but a cabinet reshuffle was announced shortly before the local elections. With the same overall stance, but a new style, economic policy was geared towards gradually recovering growth and convergence. The PCR obtained the ECOFIN seal of approval without difficulty at the same time that a global bond issue in ECU was received with the same success as the previous one.

Yet calls of the minister of finance for lower interest rates directed at a domestic business audience, had foreign repercussions, especially when they were echoed by the prime minister.

²³ The strategy involved a succession of three issues: a 75 billion yen 5 year notes, a 1.5 billion DMark 10 year bonds and a 1 billion dollar global bond issue in September.

²⁴ In an interview granted to the weekly mentioned in note 21 during the discussion of the 1994 budget, a former governor accused me of "incoherence"...

²⁵ Eg the special commendation in the September issue of *Euromoney*, giving Manmohan Singh, from India, the award for finance minister of the year stated "Macedo's reforms should help Portugal cope more effectively with any economic downturn in the future and take better advantage of any upswing". Report from Nomura and Salomon Brothers were cited with supporting evidence. The article published in the weekly *Semanario Economico* in the Summer of 1997, comparing the 19 ministers of finance since 1974 associates me with expenditure overruns but not with what I confessed (e.g. in commenting Auerbach et al. (1997) for the weekly *Expresso* in May 1997 or in the interview cited in note 21) to be the major failure of my term in office. public administration reform.

²⁶ The contribution to EC (1993), the subject of intense discussions within the ministries of finance and employment and social security, was only reviewed by the parliamentary committee on European affairs which I chaired...

²⁷ Rocha de Sousa (1997) also presents averages for parliamentary mandates and other criteria. Moreover the tests whether there exist stable relationships between the *escudo* on the one hand and the DMark and the dollar on the other. He shows real variables (the interest differential and the exchange rate) to be integrated (ie have non stationary residuals) and nominal variables (covered differential and exchange risk premium) to be stationary. He also rejects the existence of a stable long run relationship for the dollar (as there is cointegration with the DMark). This is consistent with the idea that an anchor to long run expectations during the period was provided by the ERM with or without DMark pegging.

Then leaks to the financial press about differences between the minister and the governor on banking supervision led to the replacement of most of the board in the Spring of 1994. Since then, further changes have been introduced to the statutes of the central bank to make it more independent from the government, to introduce some accountability in parliament and to improve the regulation and supervision procedures.

Another reflection of the continuity of the MAFAS is that the PCR proposed in 1993 extended the expenditure ceilings into 1997 and remained the basis for the excessive deficit procedures until a convergence, stability and growth program (PCEC) from 1998 to 2000 was approved by the ECOFIN in May 1997.

The regime change can be inferred from the stochastic properties of the daily *escudo*-DMark rate. The log changes in the *escudo*-DM rate from early 1987 to early 1997 are used. The estimation technique, used on stock market prices by Hamilton and Susmel (1994) and part of a literature surveyed by Catela Nunes (1996), allows for a number of different regimes depending on the volatility of the exchange rate. Table 4 shows that the differences in volatility are quite significant, from 1 to 60. The matrix shown in panel B of table 4 reveals that the low volatility state is the most stable, whereas there is a 5% probability of going from the medium to the high volatility state. The high volatility state could be described as a crisis (60 times higher volatility than in low state and 12 times higher than in medium state): the probability that it continues is less than 40% and the probability that it subsides is over 60%²⁸. The estimation provides probabilities of being in each one of the three states.

Figure 6 shows the conditional daily volatility obtained from the estimation. The volatility spikes, or crises, appear to coincide with the periods of system turbulence, suggesting an external cause. The beginning of stage 1 of EMU, with the speculation in favor of the *escudo* (and the punt), the Scandinavian crises of Summer and Fall 1991, the crisis of September 1992, with the first *peseta* realignment, the second realignment of November 1992, the third of May 1993, the widening of the bands in August and the fourth *peseta* realignment of March 1995²⁹.

Panels C and D respectively of Table 4 show smoothed probabilities of being in each one of the regimes and period averages of the volatility shown in Figure 6 (in % per day). They confirm that the artificially low volatility of the crawling peg regime is nevertheless higher than the one achieved since the last *peseta* realignment in March 1995 but that the shadowing of the DMark before joining the ERM was less volatile than the period after the widening of the bands in August 1993 and that the "crisis" of the first 16 months of ERM membership did not have such a strong effect on the average³⁰. Put in another way, the average volatility for the full sample in panel B of Tables 2 and 3 (January 1989 to September 1996) is as low as the volatility since ERM entry (6 April 1993 to 10 May 1997), 0.25% per day.

²⁸ The sample includes the last few years of the crawling peg, which was discontinued around the time stage 1 of EMU began. This was a very calm period for the ERM, with the last realignment including the French and Belgian francs in January 1987. Capital inflows and outflows were still subject to tight controls by the Bank of Portugal, even though their effectiveness was beginning to wither away. The results are contrasted with a shorter sample beginning in July 1990. The main difference is that the high volatility state is then more persistent (diagonal element= 46%) but the other cells remain unchanged.

²⁹ The spike of early 1994 may have a domestic origin in official statements about interest rates and the resignation of the governor of the central bank - because of a failure in banking supervision. No other domestic effect can be traced in the series, in contrast with the "popular" perception mentioned in note 20.

³⁰ Using the probabilities in Panel C of Table 4 to weigh the relative volatilities from panel A shows a much stronger effect of the crisis, e.g. 10.3 compared to about 2 for the crawling peg and the last period, 4.2 for DM shadowing, and 5.3 between August 1983 and March 1995.

5. CONCLUSION

The likelihood of EMU beginning on time and the list of countries most likely to be included can be gathered from how strongly expectations of interest rate equalisation are held by market makers. Goldman Sachs uses the difference between the forward rates on ECU instruments and its component currencies to evaluate EMU and J.P. Morgan produces a calculator using swaps of floating into fixed interest rate instruments to draw the probabilities of individual currencies. According to these estimates, the probability of EMU has risen from 80% during most of 1997 to 100% in mid October and that of Portugal being included in the euro group in 1999 is currently 95%³¹.

Even if the *escudo* manages to become the euro in 1999, substantial challenges must be met to sustain the financial reputation acquired so far. They pertain mostly to the reform of the public sector interrupted since the 1993 local elections.

It is worth recalling the role that local elections had in the regime change and its reversals. The implementation of a MAFAS and of a PPERR between 1989 and 1992 was identified with the prime minister, but different faces were needed to alternatively stress international and domestic objectives. The role of the four finance ministers can be seen in this light: they either implemented structural reforms with high external visibility or were instead required to hold the line domestically³². This outcome may not have been anticipated by each one of the individuals but it is borne out by the pattern of the regime change.

The reconquest of stability implied disposing of the teams who carried out the reforms in the vicinity of local elections to stress the predominance of domestic objectives. But there were major differences between the two mid-term cabinet reshuffles. The 1990 worked and allowed a second wind for the social democratic party to win the 1991 elections while the 1993 did not. There are surely other explanations to this difference, besides resistances to the gradual spreading of the stability culture, but the fact that the new economic regime was in place in 1993 made it less costly for the prime minister to halt reforms and simply attempt to finish his term. On the other hand, just after ERM entry economic recession and financial turbulence were ascribed to the government's obstination with stability at the expense of the political freedoms proposed by the socialist president of the republic and the newly elected opposition leader, now prime minister.

The success of the challenge is complete: the socialist government has fully accepted the new economic regime and now claims the euro as one its great achievements! Moreover, as local elections approached, the socialist prime minister carried out in late November a mid-term reshuffle. Unlike the ones executed by his predecessor, the minister of finance stayed. It remains to be seen whether or not in the socialist government, the prime minister will need to split earning credibility abroad and selling stability at home as a response to the pressures of

³¹ The calculator has only included the escudo since April 15, 1997 issue of the *Financial Times* (Austria and Greece excluded due to lack of data) but probabilities for six months earlier were reported. Portugal showed the highest probability among 8 non-core European currencies, above 75%. The probability for Finland and for Ireland are in the 60% range. In the fall of 1996, the probabilities were reversed: Portugal's was 56% and Finland's or Ireland's close to 80%. Competing indicators were published in the April 22 issue, with a word of caution about the exercise.

³² This is not to say that there were no structural reforms during the tenure of the second and fourth ministers (1990-91 and 1994-95) but rather that, when this happened, the major preparatory work had been done by their predecessors. For example, the new statute of the central bank, which came out in 1990, and improvements in tax administration, which were decided in 1994, together with the solution of disputes involving the privatisations of Totta and Petrogal.

Tables and Figures

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 Figure 3 Nominal and real effective exchange rates
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TABLE 1
INDICATORS OF REGIME CHANGE

	y	y*	conv y	$\pi=y-l$	$=y^*-l^*$	conv π
old 85-88	4.6	3.1	1.5	4.1	2.1	2.0
chg 89-92	3.3	2.2	1.1	2.3	1.7	0.5
chg x 91	3.7	2.4	1.2	3.2	1.8	1.3
new 93-98	1.9	1.9	0.0	2.1	2.0	0.0
new 96-98	3.2	2.3	1.0	2.6	1.7	0.6
	w	w*	conv w	ulc	ulc*	conv u
old 85-88	17.9	6.0	11.8	13.7	3.9	9.8
chg 89-92	16.0	6.9	9.1	13.7	5.2	8.6
chg x 91	14.8	6.8	8.0	11.6	5.0	6.6
new 93-98	6.2	3.4	2.8	4.2	1.5	2.8
new 96-98	4.9	3.2	1.7	2.3	1.5	1.1
	nefe	refex	def/y	dpc	dpc*	conv d
old 85-88	7.2	-1.3	5.6	10.2	3.8	6.4
chg 89-92	0.0	-8.3	4.6	11.6	5.1	6.5
chg x 91	0.3	-6.0	3.9	11.7	4.9	6.9
new 93-98	1.5	-1.5	4.6	4.0	2.9	1.1
new 96-98	0.0	-1.5	3.3	2.6	2.4	0.3
	rl	rl*	conv rl	rs	rs*	conv r
old 85-88	n.a.	n.a.	n.a.	15.9	8.8	7.1
chg 89-92	16.8	10.2	6.7	16.4	10.8	5.7
chg x 91	16.3	10.1	6.2	16.0	10.8	5.2
new 93-98	9.6	7.6	2.1	8.9	5.9	3.0
new 96-98	7.8	6.9	0.9	6.3	4.5	1.8

Source: EC Spring 1997 forecasts

TABLE 2
Average real interest rate differentials (%)
Annual average of monthly data

	RIRD $r-r^*$	CIRP $i-i^*-fd$	REX $e+p^*-p$	ERP $fd-e$
A: PTE/USD				
1984	-1.1	-2.9	11.9	-10.1
1985	8.8	-6.8	-25.2	40.8
1986	4.4	-4.8	-15.2	24.4
1987	3.1	-0.1	-8.2	11.8
1988	-1.5	0.0	4.0	-5.5
1989	-2.8	-0.8	1.7	-3.7
1990	1.0	1.8	-17.3	16.5
1991	6.0	4.6	-5.1	6.5
1992	7.3	0.4	-12.1	19.0
1993	6.7	0.6	15.9	-9.8
1994	4.3	0.6	1.4	2.3
1995	2.6	0.1	-10.8	13.4
1996	1.9	-0.1	3.5	-0.7
1997	0.9	-0.3	8.0	-6.9
B: PTE/DM				
1989	-2.0	-0.1	-7.5	5.5
1990	-1.5	1.7	-5.3	2.1
1991	2.0	5.0	-8.7	5.8
1992	2.3	0.3	-5.7	7.8
1993	3.3	2.1	9.9	-8.7
1994	3.6	-0.5	3.3	0.8
1995	3.1	-0.1	0.2	3.1
1996	2.2	0.5	-3.5	5.2

Sources: Rocha de Sousa (1997)

1984-88: Bliss and Braga de Macedo (1990).

TABLE 3
Real interest rate differentials (%pa), by term

		RIRD	CIRP	REX	ERP
		r-r*	i-i*-fd	e+p*-p	fd-e
A: PTE/USD					
Ministers of finance					
MIGUEL CADILHE	m	-2.8	-0.8	1.7	-3.7
JAN-DEC 89	c.v.	-0.6	-2.4	2.4	-1.5
MIGUEL BELEZA	m	3.1	3.0	-12.3	12.4
JAN 90-OCT 91	c.v.	0.9	0.8	-0.7	0.6
BRAGA DE MACEDO	m	7.1	0.9	1.1	5.1
NOV 91-DEC 93	c.v.	0.2	3.8	14.8	3.6
EDUARDO CATROGA	m	3.7	0.4	-3.4	6.6
DEC 93-OCT 95	c.v.	0.3	1.1	-3.5	1.8
SOUSA FRANCO	m	1.8	-0.2	1.7	0.3
OCT 95-FEB 97	c.v.	0.4	-1.7	3.0	20.2
Central bank governors					
TAVARES MOREIRA	m	2.2	2.1	-6.9	6.9
JAN 89-MAY 92	c.v.	2.0	1.4	-1.4	1.4
MIGUEL BELEZA	m	6.1	-0.2	5.9	0.4
JUNE 92-JUNE 94	c.v.	0.3	-16.6	2.9	48.4
ANTÓNIO DE SOUSA	m	2.6	0.1	-4.2	6.7
JULY 94-FEB 97	c.v.	0.5	5.7	-1.9	1.3
B: PTE/DM					
Ministers of Finance					
MIGUEL CADILHE	m	-2.0	-0.1	-7.5	5.5
JAN-DEC 89	c.v.	-0.5	-16.6	-0.3	0.2
MIGUEL BELEZA	m	-0.1	3.1	-7.2	4.0
JAN 90-OCT 91	c.v.	-14.9	1.0	-0.4	0.7
BRAGA DE MACEDO	m	3.0	1.6	1.2	0.2
NOV 91-DEC 93	c.v.	0.6	2.5	7.5	54.7
EDUARDO CATROGA	m	3.4	-0.3	2.4	1.3
DEC 93-OCT 95	c.v.	0.4	-4.7	1.8	3.9
SOUSA FRANCO	m	2.3	0.3	-2.5	4.6
OCT 95-SEP 96	c.v.	0.4	4.3	-0.9	0.4
Central bank governors					
TAVARES MOREIRA	m	0.0	2.4	-7.1	4.7
JAN 89-MAY 92	c.v.	-395.8	1.3	-0.3	0.5
MIGUEL BELEZA	m	2.7	0.3	5.2	-2.9
JUNE 92-JUNE 94	c.v.	0.7	10.5	1.5	-3.0
ANTÓNIO DE SOUSA	m	3.1	-0.1	-1.3	4.5
JULY 94-SEP 96	c.v.	0.3	-18.3	-1.6	0.4

Note: m=mean; c.v.=coefficient of variation

Source: Same as Table 2 and subsequent calculations

TABLE 4
Estimating the regime change

PANEL A**Estimation results**

Daily data on the log change of the DM escudo exchange rate

Sample period: January 5, 1987 to 19 April, 1997

Constant term in regression = -.0018 (% per day)

Autoregressive coefficient in regression = .0217

low volatility = 1

medium volatility = 3.9

high volatility = 60.2

PANEL B**Matrix of transition probabilities (%)**

	low	mediu	high
low	98	2	0
mediu	1	93	61
high	1	5	39
	100	100	100

Note: The row j, column i element represents the probability of going from state i to state j.

For example, the probability of going from high volatility to medium volatility is 61%.

PANEL C**Average Probabilities in Periods (%)**

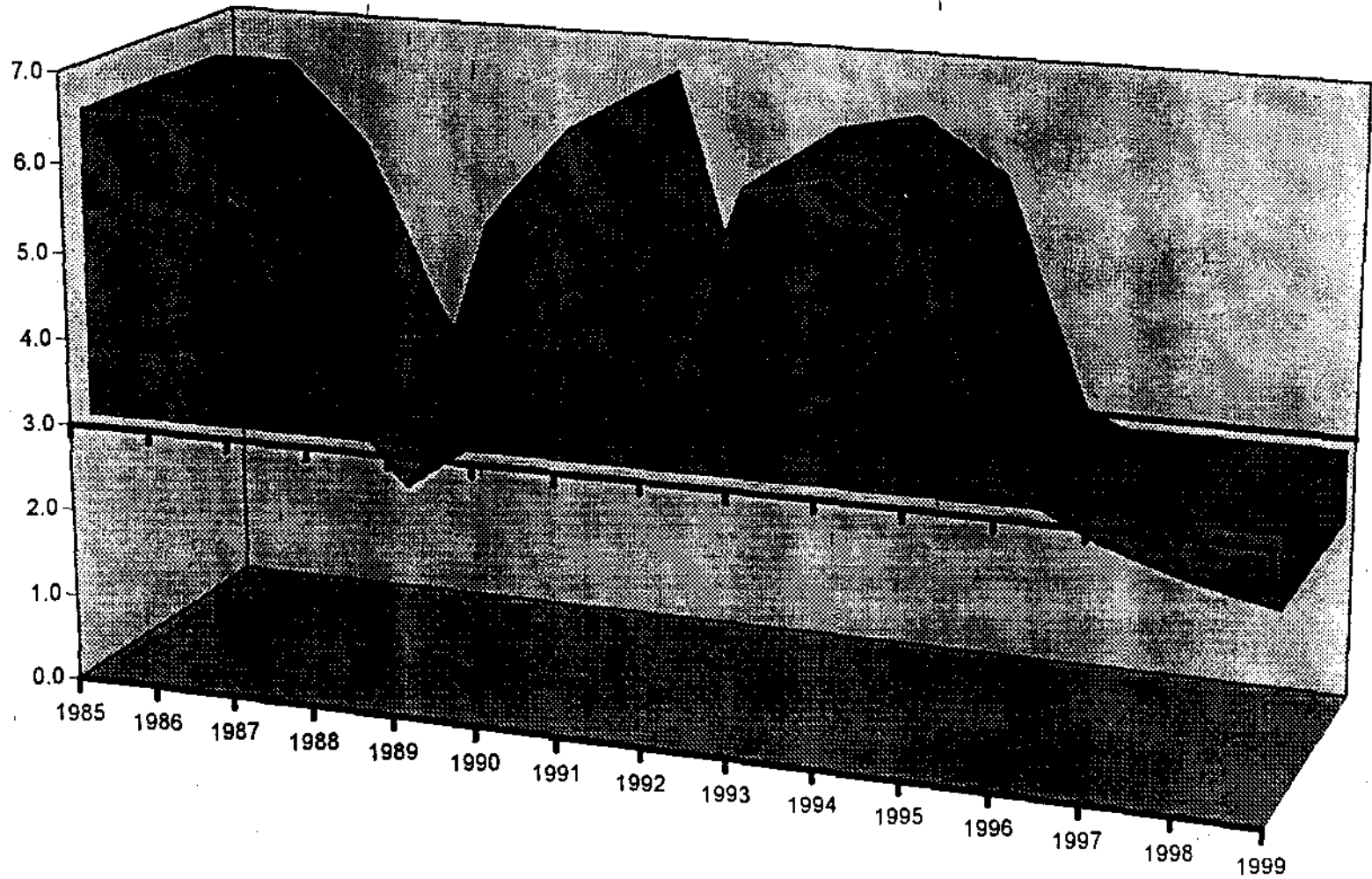
	low	mediu	high
9/1/97 - 2/7/90	78	22	0
2/7/90 - 6/4/92	56	44	0
6/4/92 - 3/8/93	0	85	15
3/8/93 - 5/3/95	45	50	5
5/3/95 - 20/5/97	85	15	0

PANEL D**Standard Deviation in Periods (% pd) and their Description**

9/1/97 - 2/7/90	0.21	Crawling peg
2/7/90 - 6/4/92	0.24	DM shadowing cum capital controls
6/4/92 - 3/8/93	0.34	ERM 6% and system instability
3/8/93 - 5/3/95	0.26	ERM 15% before PTA realignment
5/3/95 - 20/5/97	0.20	ERM 15% after PTA realignment

SOURCE: ON-GOING WORK WITH CATELA NUNES

Figure 1
Deficit Cycles (% GDP)



Source: EC Winter 1997 forecasts

Figure 2
Double dip recession

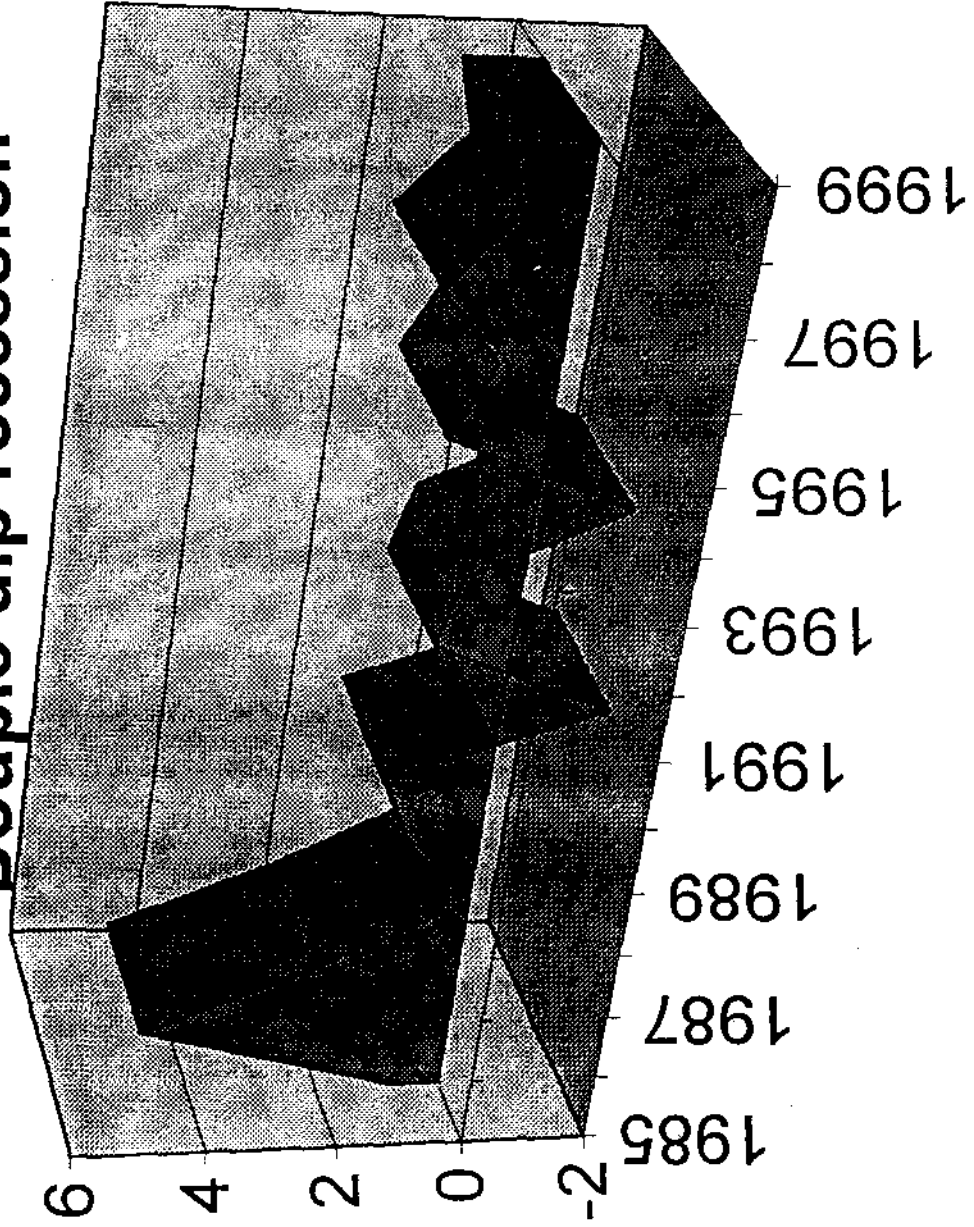


Figure 3
Wage and rental moderation

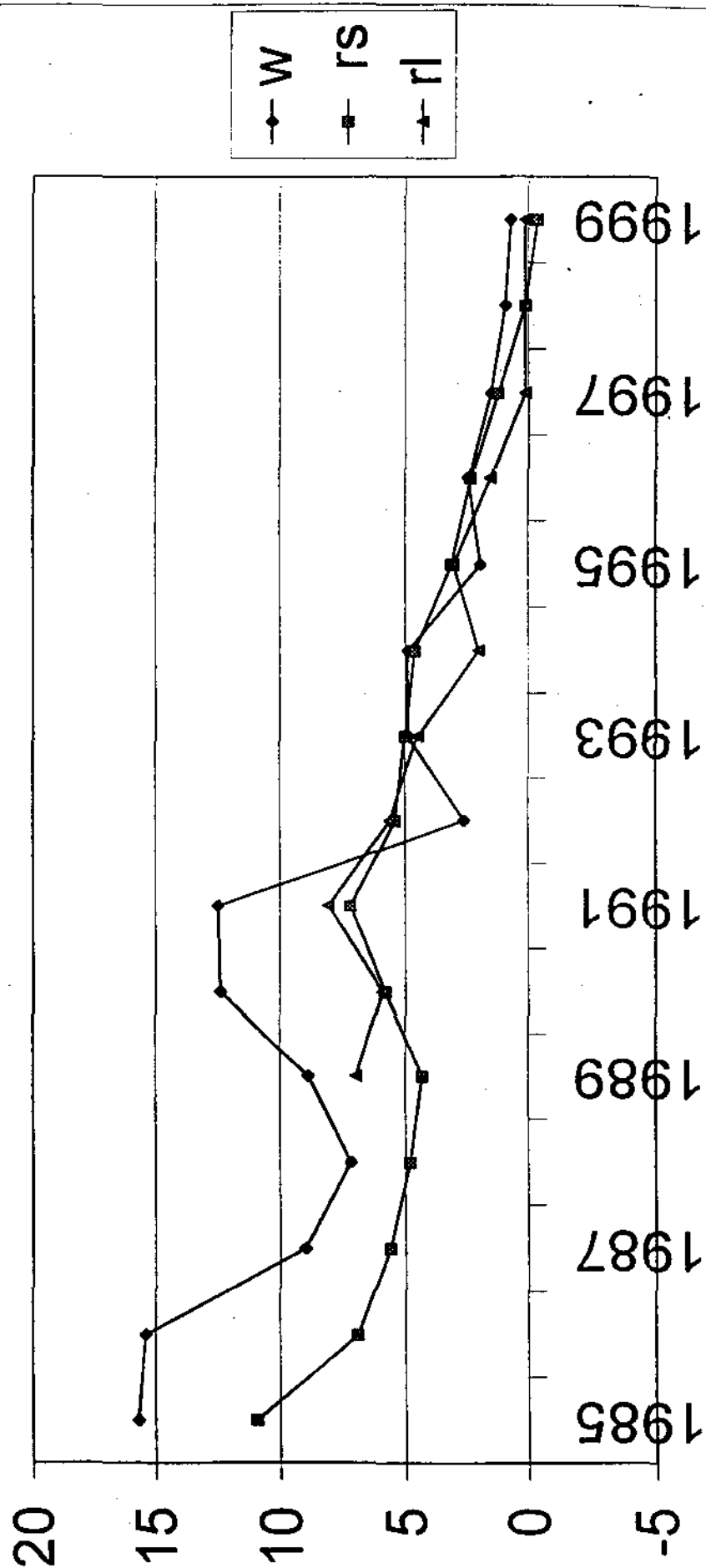


Figure 4
Nominal and Real Effective Exchange Rates (%)

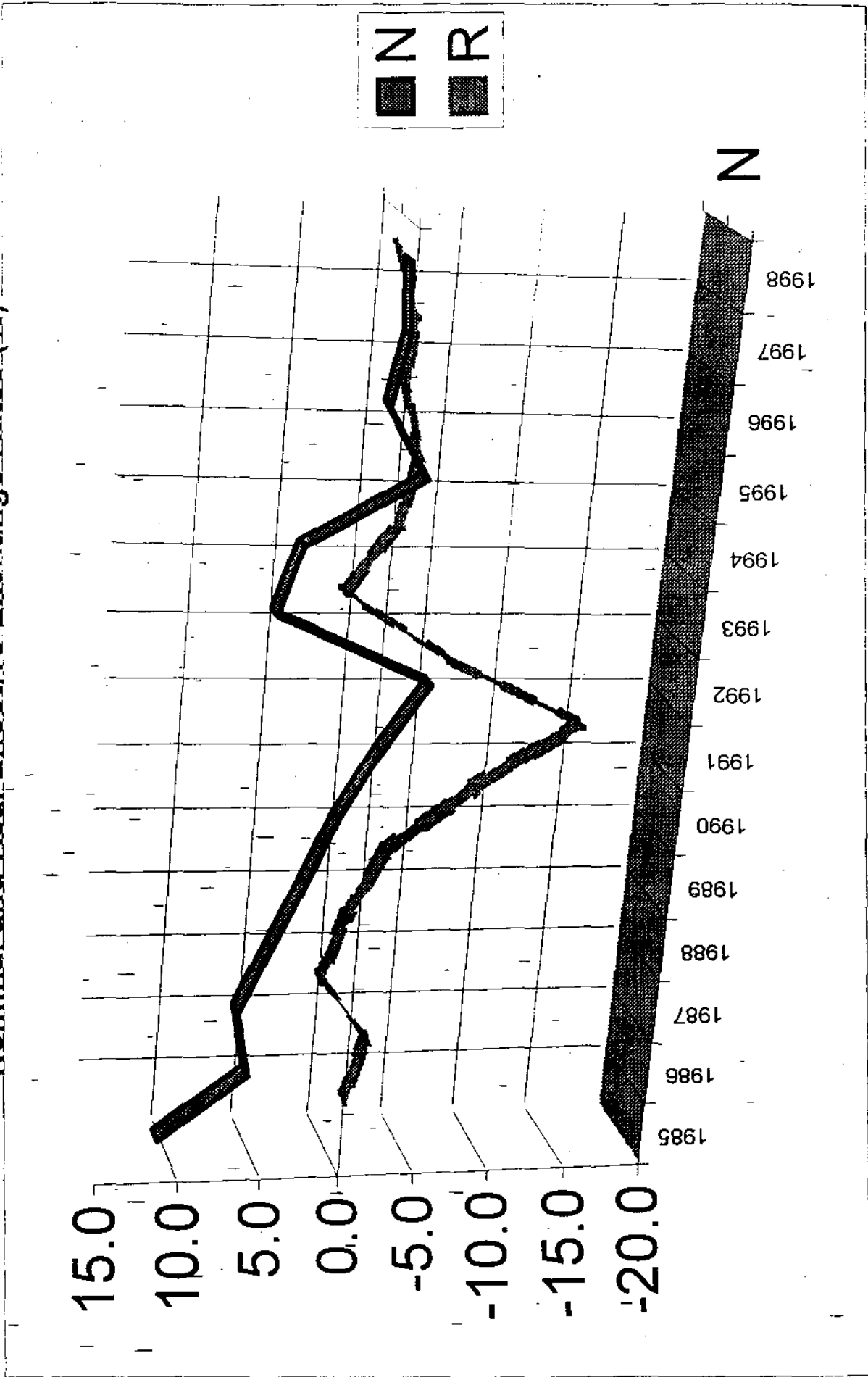


Figure 5
Exchange Risk Premium against DMark

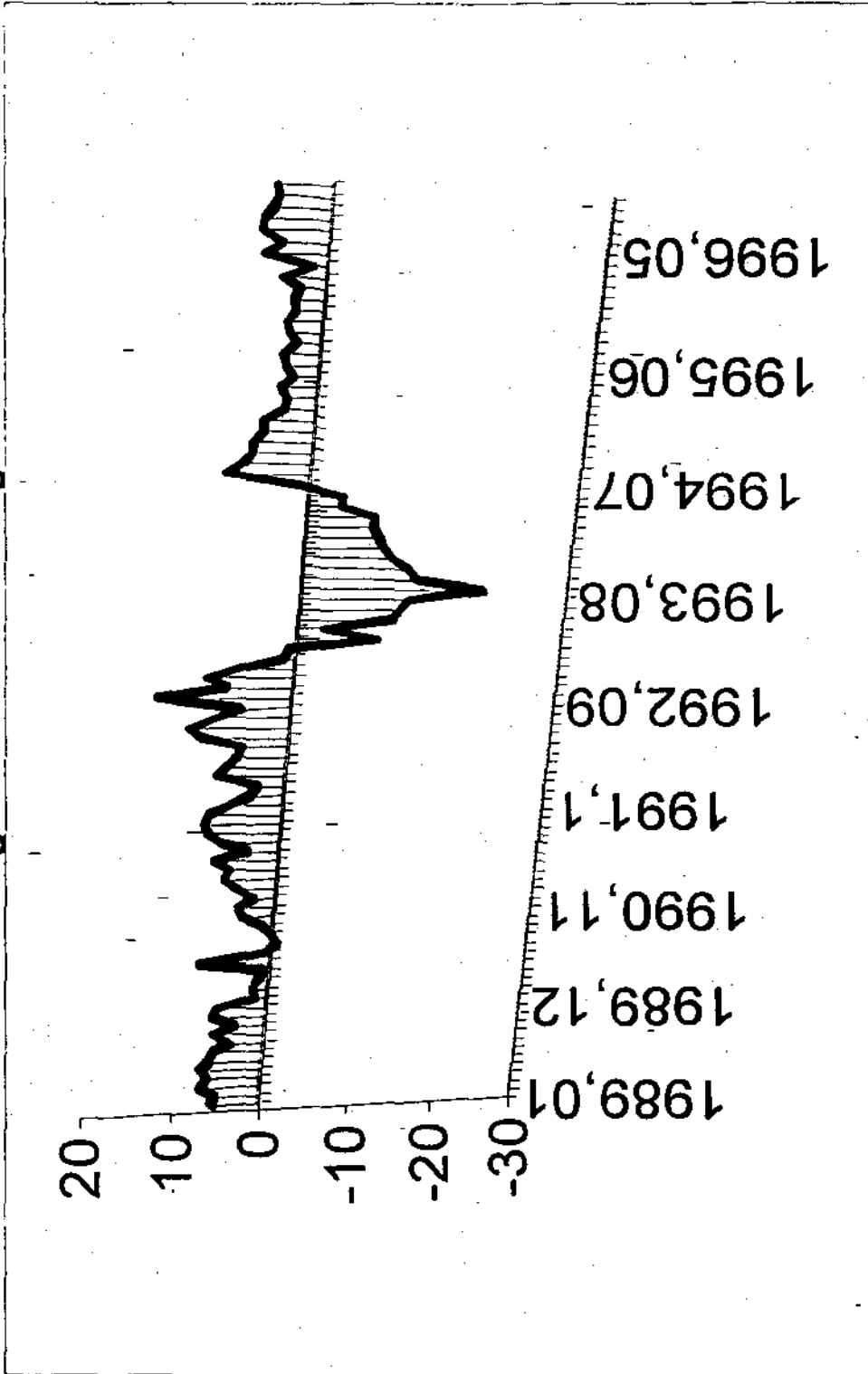
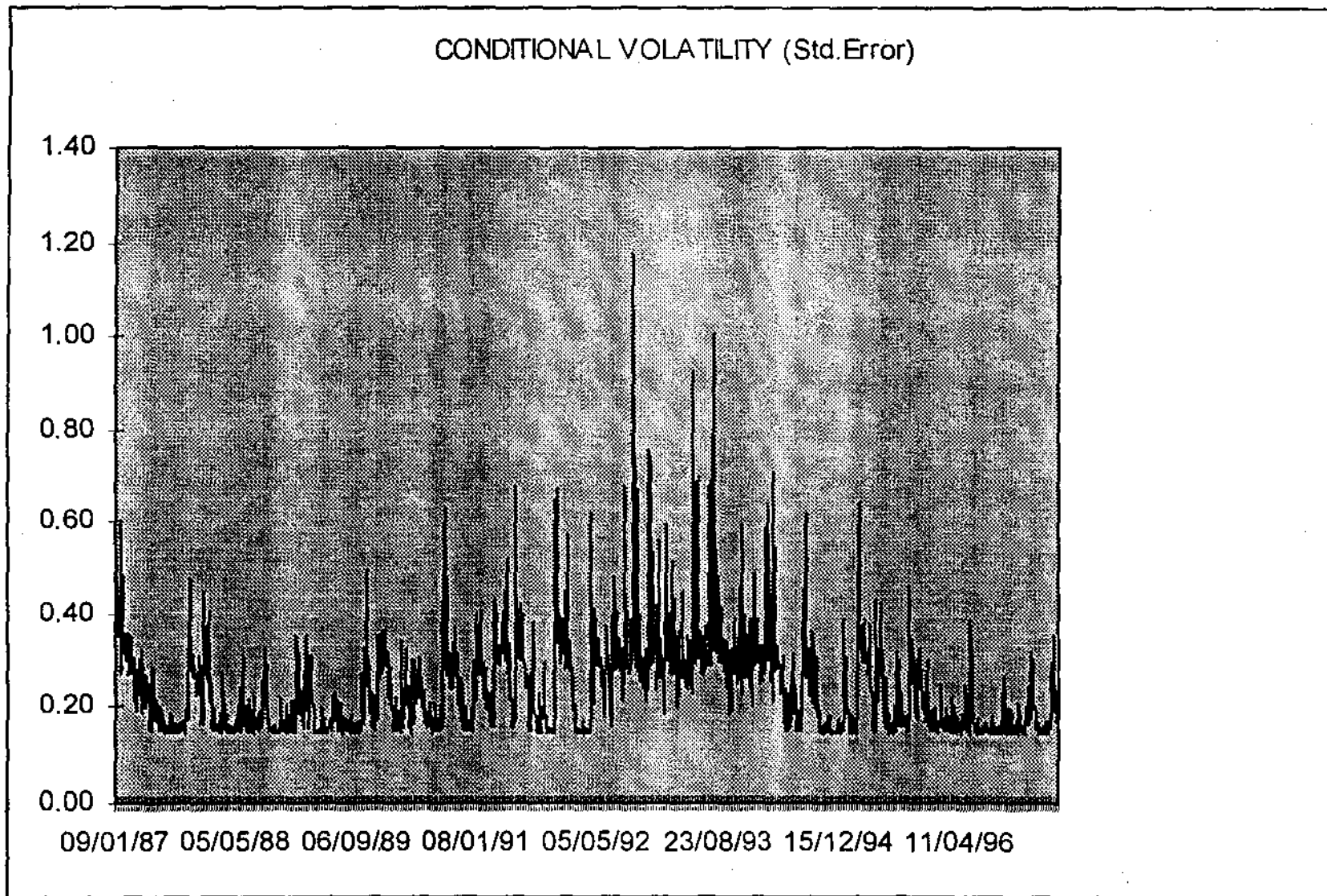


Figure 6



Source: Same as Table 4