

## **Assessing the credibility of a target zone : A History of the EMS**

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The European Monetary System (EMS) was initially planned as an agreement to reduce exchange rate volatility for a Europe in transition to a closer economic integration. Following its inception in March 1979, a group of European countries linked their exchange rates through formal participation in the Exchange Rate Mechanism (ERM). The essence of the ERM was that each participating country had an allowed range (target zone) within its currency could fluctuate with respect to the others. In order to keep the exchange rates within the margins, the participating countries were obliged to intervene in the foreign exchange market if a currency approached the limits of its band. The realignment of the parities by the monetary authorities was possible, provided that all the members of the EMS agreed.

The fluctuation bands were originally set at  $\pm 2.25\%$ , but a  $\pm 6\%$  band was set for Italy and the newcomers (Spain, the UK, and Portugal). After almost a year of unprecedented turmoil in the history of the EMS, the fluctuation bands of the ERM were broadened to  $\pm 15\%$  in August 1993 (except for the Dutch guilder and the Deutschmark, which remained within the narrow bands of  $\pm 2.25\%$ ). There have been fifty-eight realignments during the 1979-1998 period, implemented in nineteen discrete adjustments. It should be noted that thirty eight of such realignments were made prior to the currency turmoil of 1992/93.

Researchers and practitioners alike were caught up with these institutional arrangements, and a number of exchange rate target zone models have been introduced. The ERM is the most prominent example of a target zone exchange-rate system. Starting with the seminal study by Krugman (1991), a large number of papers have examined the behaviour of exchange rates in target zones (see Kempa and Nelles, 1999, for a review). The main result of the target zone model is that, with perfect credibility, the zone exerts a stabilising effect (the so-called "honeymoon" effect), reducing the exchange rate sensitivity to a given change in fundamentals. Nevertheless, in a target zone with credibility problems, expectations of future

interventions tend to destabilise the exchange rate, making it less stable than the underlying fundamentals (Bertola and Caballero, 1992).

Credibility can be defined as the degree of confidence that economic agents assign to the announcements made by policymakers. In a context of an exchange rate target zone, like the EMS, credibility refers to the perception of economic agents with respect to the commitment to maintain the exchange rate around a central parity. Therefore, the possibility for the official authorities to change the central parity could be anticipated by the economic agents, triggering expectations of future changes in the exchange rate that could act as a destabilising element of the system.

The aim of this paper is to assess the degree of credibility of the ERM. Although the EMS has been analysed extensively, we depart from previous studies by using different credibility indicators, which have been proposed in the literature, to measure the agents perception towards the ERM commitments. At the same time, we extend the analysis to eight currencies participating in the ERM, and examine the complete EMS history, including, in our sample, events such as the monetary turmoil at the end of 1992 and the broadening of fluctuation bands in 1993. Furthermore, we show the utility of this approach to other contexts by studying the credibility of Danish krone and Greek dracma *vis-à-vis* the euro in the called ERM-II.

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