LA LETTRE DU

N° 204 – SEPTEMBER 2001

CEPII

CENTRE
D'ETUDES PROSPECTIVES
ET D'INFORMATIONS
INTERNATIONALES

TRADE INTEGRATION AND MONETARY INTEGRATION

Several, recent empirical studies have shown that exchange rate volatility has a negative impact on the volume of international trade and on foreign direct investment. However, in open economies, all economic variables are affected by conditions relating to international integration. A study by the CEPII has therefore tried to show how exchange rate volatility may penalise domestic investment. Such an effect is all the more pronounced the more similar the productive structures of the involved countries are. These diverse studies thus provide new arguments relating to the choice of a monetary peg, underlying the necessity of a good matching between trade and monetary zones.

Trade regionalisation has developed for a long time, without there being any regionalisation of the international monetary system. Indeed, most currencies of emerging countries were pegged to the dollar before the exchange rate crises of the late 1990s, and this phenomenon has persisted: for now, the dollar remains the dominant peg for such currencies[1].

However, it is likely that a European monetary zone will evolve progressively: membership of the European Union (EU) by the Central and East European Countries (CEECS) means that they will ultimately adopt the euro. Furthermore, other Mediterranean countries are also likely to peg their currencies to the euro. The European monetary area will thus balance the American one built on the dollar, with Asia remaining for the most part under the influence of the dollar.

As a result, a twofold regionalisation process could affect the world economy. Trade regionalisation is already a reality, especially with NAFTA, or with the overall zone created by the EU, the CEECS and the Mediterranean countries. At the same time, monetary regionalisation will be enhanced by enlargement of the eurozone. Monetary regionalisation implies that a certain number of countries have chosen to manage their currencies with respect to a common reference, which may be one currency or a basket. In the former case, regionalisation results from individualist pegging strategies. In the second case, regionalisation implies coordination of exchange rate policies. In both cases, the management of exchange rates assumes monitoring both the exchange-rate level, which determines competitiveness, and the exchange-rate volatility, whose real impact must not be underestimated.

The Real Effects of Exchange Rate Volatility

Exchange rate volatility relates to short- and medium-term movements away from the trend of the exchange-rate. This notion not only relates to exchange-rate fluctuations, but also to the instability and uncertainty which derive from them.

Very short-term, daily volatility, which characterises forex markets and which is of little real consequence, may be distinguished from medium-term volatility. The latter is monthly or quarterly (see box) and has greater real consequences. It is such volatility which is the subject of this article. For an open economy, it is normal for the exchange rate to adjust in the face of disruptions in the business cycle. Such exchange rate fluctuations do

1. A. Bénassy-Quéré and B. Coeuré (2000), "L'avenir des "petites" monnaies, solutions régionales contre solutions en coin", ***Revue d'économie politique***, 3, 345-376.

not constitute uncertainty in the strict sense, as they are generally predictable when the nature of the shock is known. But exchange rates may also fluctuate in an unpredictable way over a monthly or quarterly time horizon: they are largely affected by short-term, highly volatile capital flows which are often disconnected from the real economy. Moreover, errors in expectations by agents or preferences for certain currencies may lead to important volatility, which masks the information contained, in principle, in exchange rate movements and which thus disrupts the real economy.

The theoretical literature considers that exchange rate volatility is likely to favour exports or Foreign Direct Investment (FDI) in as far as agents expect such volatility to lead to a very favourable exchange rate. However, when agents are risk averse or when they are involved in projects that are partially irreversible, greater uncertainty reduces international trade and investment flows. The conclusions of empirical studies specify such effects.

Trade and Direct Investment

The first empirical studies concluded that exchange rate volatility had no significant impact on the volume of trade[2]. However, more recent research, which uses other estimation techniques[3], indicates the opposite: volatility does indeed have a significant negative impact on the volume of international trade[4]. Empirical studies also show that volatility tends to reduce the volume of FDI entering a country. These results relate to both industrialised and emerging countries[5].

An important point stressed by these analyses, based generally on gravity models which include the relative size of the partners and the geographic distance separating them, is that the stabilisation of exchange rates increases trade and financial integration all the more when economies are geographically close.

Furthermore, for industrialised countries, there is a link between volatility and the structure of trade: a fall in volatility is associated with a rise in the share of intra-industry trade (trade in similar goods), and more specifically in the share of horizontal trade (similar goods which are only differentiated in terms of variety, and not quality)[6], within total trade. However, the direction of causality is hard to establish. Reduced volatility favours horizontal, intra-industry trade: reciprocal trade in very similar products is all the easier when prices are stable, as highly substitutable products cannot deal with strong price variations if their competitiveness is not to be affected. But, at the same time, countries which are strongly integrated in terms of trade, and specialised in very similar products have a strong incentive to stabilise their exchange rate.

Investment and Volatility

In open economies all economic variables are exposed to the conditions of international integration. Recent studies thus suggest that uncertainty about the exchange rate may affect domestic investment. A study carried out by the CEPII has sought to identify the mechanisms at work, based on the idea that companies which invest nationally also do so to service the international market, and use imported, intermediate goods[8]. Exchange rate volatility makes export earnings and the costs of intermediate goods uncertain. When prices cannot react to exchange rate fluctuations, profit margins have to absorb such volatility. A high level of exchange rate uncertainty therefore makes profits unpredictable and hence weighs on investment. Everything depends on the market structures. The smaller firms' margins to absorb exchange rate shocks, the more disruptive[9] volatility is.

At a macroeconomic level, market structures partly reflect the nature of trade. With horizontally differentiated trade, goods have, by definition, very similar prices. As long as production costs are

2. See a review of the literature given by M. D. McKenzie (1999), "The Impact of Exchange Rate Volatility on International Trade Flows", ***Journal of Economic Surveys***, 13(1), 71-106.
3. Panel methods which cross times series and multinational data.
4. A. K. Rose (2000), "One Money, One Market: the Effect of Common Currencies on Trade", ***Economic Policy***, 30, 7-47.
5. A. Bénassy-Quéré, L. Fontagné and A. Lahrèche-Révil (2001), "Exchange Rate Strategies in the Competition for Attracting