

resources that were formally involved in the foreign exchange market, in terms of unemployment costs to the companies and governments and wastage of human capital. As for governments, there are small seigniorage revenues likely to be foregone, but this largely depends on how seigniorage revenues are to be divided, and this has yet to be determined.

In terms of benefits, there are clearly benefits relating to elimination of exchange rate volatility between national currencies that are chosen to participate, not only in terms of uncertainty but also in terms of the cost of purchasing exchange rate hedges for trading currencies (although most forward contract costs are not large, usually amounting to a few basis points). On a national level, there will likely be further microeconomic benefits relating to a more stable monetary environment for business planning purposes (union negotiating, pricing policies etc.), as after adoption monetary policy will be removed from the national political arena, and placed in the hands of the ECB.

The overall net welfare effects of adopting the euro will depend on the balance of one-costs versus the continuing gains from operating with a single currency. While the Commission claims that these welfare effects will be positive, there is little a priori evidence to support this claim, as Buiter (1995) points out.

### **3.2 Short-term International Effects of EMU on Trade**

Little work has been done on the external effects of EMU, although the European Commission has recently issued a working paper on the issue (see Commission of the European Communities (1997b)).

One of the main reasons for using a currency is because of the existence of so-called network externalities (or "thick-market" externalities). A network externality occurs when the usefulness of using a particular medium of exchange is increasing in the number of other people that accept the currency for goods and services. This concept obviously is closely related with the notion of liquidity, as the greater the network externality, the easier it is to dispose of the currency in exchange for another currency or goods and services, and therefore the more liquid is the medium of exchange. It should be noted that network externalities are a microeconomic notion, and do not take into account whether a country should adopt a currency, a decision which is dealt with in the optimal currency area literature.

Usage of currencies on an international level relate not only to the preferred method of international trade invoicing, but also to other broad categories of international capital flows recorded in the balance of payments (FDI, portfolio capital and reserves). International trade clearly has an impact on capital flows and to a lesser degree on FDI flows (as MNEs are major traders and international investors in physical capital), so it suggests that international trade is the most logical place to start. Table 3.1 documents the usage of currencies for trade invoicing in the world trading zones plus the OPEC countries.