Comment on Paul Mizen: The euro and the changing role of currencies as transactions vehicles

Richard Friberg*

What determines if a currency becomes an international currency and what are the implications for the future role of the euro? With these questions in mind Paul Mizen's article surveys the literature on emergence of media-of-exchange and discusses how this can be applied to the choice of currency in international transactions. The article proceeds with an overview of the characteristics of international money and then describes current currency use with a focus on the US dollar, the German mark and the Japanese yen. The conclusion is that the euro will become a significant international currency but that it is likely to only gradually be able to displace the dollar as the world's premier international currency. The article ends with a discussion of the impact of the euro on "out" countries. Mizen does an excellent job and covers very much ground. This comment sheds some light on two issues little discussed by Mizen: the first regards what we mean by an international currency and whether there are any significant real effects associated with currency choice in international transactions. Second we discuss currency use in Swedish foreign trade and evaluate the potential for the euro. We end with a few reflections on the impact on "out" countries.

1. What do we mean by international currency and should we care?

At various stages in the paper, Paul Mizen discusses what might be meant by an international currency and why it will matter. Nevertheless there is little discussion of the relative importance of these different roles. It would have been interesting if more attention had been paid to the differences between today's international currencies. Take, for example, the Japanese yen. It is purportedly an international currency but only 36% of Japanese exports (22% of imports) are denominated in yen (Table 3 in Mizen). Why do we expect Eu-

^{*} Research associate, Stockholm School of Economics.

roland to be like the US and not like Japan and is this important? Another interesting fact from Table 3 in Mizen is that the role of the German mark is so limited within Euroland today. The German mark is a liquid currency with fixed exchange rate *vis-à-vis* the Euroland countries—why is it not used for trade to a greater extent? The US dollar is more important than the German mark for exports and imports of France, Italy, and the UK.

To discuss the roles of international currency and the potential impact on real variables, I use the framework of Hartmann (1996)—essentially the same categorisation as Mizen follows.

Table 1. The dimensions of international money: the case of the euro.

Function	Substitution currency (goods markets)	Foreign trade vehicle (goods markets)	Forex vehicle (currency markets)	Intervention currency (currency markets)
Description	Euro used for local transactions in out countries.	Broad sense: euro used for exports to and from Euroland. Narrow sense: trade between two non-Euroland currencies.	Market microstructure based foreign exchange trading.	Central bank holdings of euros.
Potential im- portance in out for real vari- ables	Large effects, e.g., for transmission of shocks (but unlikely?)	Depend on extent of price rigidities— important for transmission of shocks.	Small welfare gain from lower transac- tions costs.	Small.

The columns in the Table 1 should be self-explanatory. The first two dimensions of an international currency are concerned with goods prices and the second two are concerned with the currency markets per se. We postpone the discussion of substitution currency until later. Let us instead turn to the column two and ask whether the euro will be used as foreign trade vehicle in the broad sense; that is, will trade with Euroland be denominated in euro? Paul Mizen has a nice discussion of Grassman's law (invoicing in the exporter's currency), but there is little discussion of other motives for currency choice than medium-of-exchange considerations. Whether the choice of currency denomination of trade matters for any real variables (and for the transmission of shocks), hinges on the degree of price rigidities. The more rigid prices are, the more the currency choice will matter for exchange-rate pass through and thus for the transmission of exchange-rate changes and monetary shocks. When prices are rigid, issues other than medium-of-exchange considerations will be important for the choice of currency in trade. This is analysed in an expanding literature on the choice of invoicing and price-setting currency under exchange-rate uncertainty (see Friberg, 1998, and references therein). For a wide class of functional forms, this literature points to the optimality of price-setting arms-length trade in the importers' currency. We would thus expect a large share of imports to Euroland to be denominated in euros where this effect and mediumof-exchange considerations typically will point in the same direction. We would expect the euro to be used to a lesser extent for denominating exports from Euroland. Betts and Devereux (1996) examine consequences of the currency in which prices are rigid for exchangerate variability. Devereux and Engel (1998) study implications for the optimal currency regime.

Regarding the foreign-trade vehicle role in the narrow sense, there is also much uncertainty as to what patterns to expect. From a Swedish perspective, the issue is whether Swedish exports, for example, to the UK will be denominated in euro. And whether commodities that are currently priced in dollars will be priced in euros. The expectations of agents and the extent to which there are network externalities will be important. Say that previously a Swedish exporter denominated exports to the UK in crowns or pounds. As a consequence of EMU, will the exporter start to price and invoice in euro? This could be the case if exporters face competition from say France, Germany, and Finland, which previously priced in their own currencies but now price in euros. Johnson and Pick (1997) show that pricing in a vehicle currency will become desirable when faced with strong competition that sets prices in this vehicle currency. Regarding real effects, we note that here as well, they will hinge on the extent of nominal rigidities-with the addendum that we most often observe vehicle currency use in the *narrow sense* for commodities, whose prices typically display only very limited nominal rigidities.

The Forex-vehicle role involves large amounts of currency because only a small share of turnover is directly accounted for by trade flows. According to Hartmann (1996), spot trading in currencies is about 40 times larger than world exports. What is driving these flows might be called micro-structure-based explanations of foreign exchange trading. Real effects linked to this function are primarily in the shape of lower transaction cost—lower bid-ask spreads. As for the last effect—intervention and central bank reserve currency—the total official reserves around the world are small in comparison to private-sector holdings, and adjustment will probably occur over a longer time period. Resulting real effects will probably be limited.

¹ Portes and Rey (1998) estimate the welfare gains in terms of decreased transactions costs due to increased trading in euro—the difference between their "quasi status quo" and "big euro" case is about 0.2% of EU GDP.

2. Currency denomination of Swedish foreign trade

How might currency use in the foreign trade of "outs" change with the advent of the euro? It will prove useful to make a comparison with past and present currency denomination of Swedish foreign trade. Columns three and five in Table 2 give the shares for 1968 (Grassman, 1973). We observe that a large share of exports was denominated in crowns, while a much smaller share of imports was so. Several studies have established the same pattern for other countries, and the behaviour has become known as *Grassman's law*. The last column gives the share of the respective market (e.g., the US in the case of USD) in Swedish exports in 1994.²

What are the lessons that we can draw from Table 2 regarding the future role of the euro for Swedish foreign trade? A first observation is that in 1995, all Euroland countries were under-represented in currency use. For example, while about 13% of Swedish exports were destined for Germany, only about 10% of exports were denominated in German mark. There is no indication that European currencies are used as vehicles for foreign trade in the narrow sense. It is probable that use of euro will increase in the broad sense so that the share of euro invoicing will more closely match the share in trade of euro countries. The only currency that stands out as vehicle currency in 1995 in the narrow sense is the US dollar—the share of exports denominated in US dollars is about 10 percentage points larger than the share of the US as a market for Swedish exports. The euro currencies in Table 2 (DEM, NLG, FRF, ITL, and FIM) are used as currency of denomination for 19.8% of Swedish exports and 26.9% of Swedish imports. So there is much potential for the euro to expand as a vehicle currency in Swedish foreign trade.

² The export share is quite similar to the import share for most countries and is typically stable.

Table 2. Currency denomination of Swedish trade 1995 and 1968 (percent).

Currency	imports 1995	Imports 1968	Exports 1995	Exports 1968	Share of respective country in Swedish exports 1994
SEK	33.1	25.8	43.8	66.1	NA
USD	21.9	22.0	18.4	12.3	8.0
DEM	14.4	17.4	9.8	3.8	13.3
GBP	5.4	17.3	5.4	11.2	10.2
NLG	5.1	NA	3.2	NA	5.3
FRF	4.1	2.5	3.7	0.8	5.1
DKK	3.0	3.9	2.6	1.8	6.9
NOK	2.0	2.2	2.8	0.7	8.1
ITL	1.7	1.8	1.4	0.3	3.8
JPY	1.7	NA	1.4	NA	2.7
FIM	1.6	NA	1.7	NA	4.8
CHF	1.5	NA	NA	0.5	1.9
Other	4.3	4.7	4.6	2.5	29.9
Total	100.0	100.0	100.0	100.0	100.0

Note: Data from 1995 are taken from the settlement reports of Sveriges Riksbank—all payments for goods above a threshold of SEK 100,000 and going through Swedish banks are reported. The data from 1968 are from Grassman (1973). Data on exports are from 1994.

Source: Statistics Sweden.

How have trade currency patterns evolved since 1968? There have clearly been some significant developments during this period. The share of exports denominated in crowns has decreased by about 20 percentage points, the importance of the US dollar and the German mark have increased while the share of the British pound has decreased. Nevertheless, the pattern is surprisingly stable considering all the institutional changes that occurred since 1968. In 1968, we lived in a world of capital controls, of Bretton-Woods, and of virtually non-existent derivatives markets—a very different set-up from that of today. The implication is that we expect changes in the pattern of currency use but should probably expect it be a slow adjustment.

3. The impact on "out" countries

Paul Mizen concludes the article with an analysis of the impact of the euro on the "out" countries. I believe that the discussion would have benefited from a clearer distinction between currency substitution in the "out" countries and currency use in foreign trade. Mizen discusses the implications of currency substitution at length, and I have no quibbles with this analysis—however, I see little reason to expect widespread currency substitution in the "out" countries if they remain "out". The cases where we have observed currency substitution in the past come from countries that have had high inflation rates the domestic currency has been ill suited to function as a store of value. This is not the case, for example, in Sweden today—rather one might argue that the case for substituting away from crowns is weaker today than it has been for many years. Inflation is low, and the case for denominating loans in foreign currency is weaker today than in 1990, for example, when the interest rate differential against the German mark was much larger and exchange-rate risk was lower (fixed exchange rate). As noted above we deem it likely that the euro will gain importance in the foreign trade of the "out" countries, but deem it much less likely that we observe currency substitution.

We can make the comparison with Canada, another country bordering on a large currency area. Very much of Canadian trade is denominated in US dollars. Page (1981) reports that 64% of Canadian exports to Germany were denominated in US dollars and only 9% in Canadian dollars. Nevertheless, we see very little currency substitution in Canada, wages are paid, loans are taken, and prices are set in Canadian dollars. One counter-argument is that the EMU is a large, unique institutional change and that history is therefore not much of a guide. It is true that the world has never seen a currency

union on this scale and form being created. I would argue that, yes it is a large change but one should also not forget that most of the Euroland currencies have been fixed against each other for long time within quite narrow bands. The instance where I would not be surprised if we were to observe wide-spread currency substitution in the "out" countries is if they decided to enter the EMU—it might then make sense for agents to switch into euros sooner rather than later.

References

- Betts, C. and M.B. Devereux (1996), The Exchange Rate in a Model of Pricing-to-Market, European Economic Review 40, 1007-1021.
- Devereux, M.B. and C. Engel (1998), Fixed vs. Floating Exchange Rates: How Price Setting Affects the optimal Choice of Exchange Rate Regime, NBER Working Paper No. 6867.
- Friberg, R. (1998), In which Currency Should Exporters set their Prices?, Journal of International Economics 45, 59-76.
- Grassman, S. (1973), Exchange Reserves and the Financial Structure of Foreign Trade (Saxon House).
- Hartmann, P. (1996), The Future of the Euro as an International Currency a Transactions Perspective, LSE FMG Special Paper No. 91.
- Johnson, M. and D. Pick (1997), Currency Quandary: The Choice of Invoicing Currency under Exchange-Rate Uncertainty, Review of International Economics 5, 118-128.
- Page, S.A.B. (1981), The Choice of Invoicing Currency in Merchandise Trade, National Institute Economic Review 98, 60-72.
- Portes, R. and H. Rey (1998), The Emergence of the Euro as an International Currency, NBER Working Paper No. 6424.