To be added: link between private + official ecu

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An Analytical Framework for the Parallel Currency Issue

I) Introduction

provide an analytical background for a discussion about the parallel currency issue by

The purpose of this paper is to analyze under what (why) conditions a parallel currency could emerge and circulate in the entire Community alongside national currencies. The result of this analysis are then used to discuss the threee main issues that arise in most discussions about the parallel currency aproach:

1) Whether a national currency like the DM or a supranational currency like the ecu is more likely to be adopted by the private sector as a parallel currency.
2) Whether the emergence of a parallel currency should be viewed as undesirable because this would create problems of monetary control or whether is should be viewed as desirable because it would facilitate the creation of a monetary union.
3) What could be done to ensure that the ecu would become a parallel currency? (This problem arises obviously only if it is deemed desirable that the ecu fulfills this function.)

The analysis of the paper suggests three points about the above issues:

1) Both the DM and the ecu have advantages as potential parallel currencies, it is therefore not clear what currency would be adopted by the market. However, the economies of scale in this area suggest that, if a parallel currency emerges at all, the starting position is very important. The years around 1992 might be therfore be decisive for this issue.

2) Since a parallel currency can be viewed more a sympton than a cause of a high degree of monetary integration most of the costs and benefits that are usually related to the emergence of a parallel currency should rather be viewed as a side effect of the integration of European financial markets.

3) The demand for the ecu as money would be determined by the organization of markets, payment habits in international trade and similar factors. To promote the ecu it would therefore be necessary to act directly on these fundamental determinants of the demand for the ecu. Using official institutions to create ecu assets or liabilities and printing ecu notes and coins would have little effect per se.

In a full monetary union, which could be defined as an area that operates as if there existed only one currency, it would be meaningless to speak of a parallel currency since all monies (the national and the parallel) would be indistingishable. This paper therefore analyzes the conditions for the emergence of a parallel currency in the

type of environment that can be expected after 1992, i.e. some residual exchange rate variability, no capital controls and national financial markets and payments systems that are

taken in its usual meaning, i.e., a currency that is used for at least some of the traditional functions of money alongside national currencies in most of the regions of the Community.

Section II analyzes in some detail the factors that would determine the sucess of a parallel currency. Section III then discusses briefly whether this analysis implies that the ecu or the DM would have more chances of being adopted as a parallel currency. Section IV discusses the benefits and dangers of a parallel currency and section V briefly

currency could emerge and displace national currencies only if it is superior to the existing national currencies in at least some of these aspects. This section therefore analyzes the factors that would determine the usefulness of a parallel currency in these three functions of money.

In most modern economies one currency fulfills all three functions of money, this indicates that economies of scale can be obtained from a reduction in the number of currencies used in the economy. A parallel currency would therefore be used only if it had advantages that are substantial enough to outweigh these economies of scale.

1) The parallel currency as a store of value:

a) Exchange rate variability This is the most important factor for the usefulness of a parallel currency as store of value or financial asset. A high degree of exchange rate variability would make financial instruments denominated in a basket currency useful because it would allow issuers and investors who desire to reduce exchange rate risk to save on the transaction costs that would arise if they had to construct a new basket each time and take out positions in each of the components. Mainly corporations exposed to exchange rate variability and wealthy individuals that can contemplate investing in several currencies would be interested in this aspect of a basket currency.

A reduction in exchange rate variability among the component currencies would reduce -ceteris paribus- the usefulness of

a basket currency as an instrument for risk diversification.[1] A supranational currency defined in absolute terms, that is a currency whose exchange rate in terms of the national currencies could fluctuate even if national currencies are permanently linked among them, would not benefit from the diversification motive and might be viewed as just another financial instrument. Similarily, no national currency could become the predominant instrument to hedge against exchange rate variability since the risk diversification motive would induce agents to use many different currencies for this purpose.

b) Expected exchange rate changes.

The remaining predictable or expected changes (as opposed to the unexpected changes discussed under exchange rate variability) in exchanges rate should be a less important factor in an environment of moderate inflation rates. This element should therefore apply mainly the strongest Community currency or to a supranational currency defined in absolute terms which could potentially appreciate against all Community currencies. Moreover, with efficient international capital markets expected changes in the exchange rate would be reflected in the rate paid on interest bearing assets.[2]

The expected exchange rate component would therefore affect mainly the demand for non-interest bearing instruments such

currency less useful than balances in national currencies because they would have to sustain a cost of exchanging them into national currencies. This creates the potential for another Gresham's law type effect in the sense that unwanted balances in the parallel currency would always be used first to pay off contractual obligations.[6)]

Another possibility would be to make the parallel currency not (preferential) legal tender in general, but but only for obligations due to official institutions, such as national governments and Community organs. This would make balances in the parallel currency more useful for corporations that have to make frequent tax payments. For individuals that pay taxes only once a year this would be less important. However, since transaction costs are anyway much lower for the large transactions done by corportations, to accept payments in the parallel currency for official purposes might have only a limited impact; moreover, Gresham's law would have its strongest impact for large corporations.

c) The existence of (official) bank notes and coins; this seems to be the only instrument that is at present not available in ecu. If, as argued above, it is not likely that a parallel currency would be widely used in retail transactions there would be little demand for such notes and coins. In the absence of a demand it would be difficult to bring these notes and coins into circulation. National currency comes into circulation because, e.g. commercial banks request request notes and coins from the central bank for their retail customers; who then use this cash for their

regular transactions. As long as retail transactions are done in the national currency there would be no requests for ecu notes and coins, they would therefore not enter into circulation this way. If an official institution tried to use ecu notes and coins to pay for goods and services the agents who receive them would exchange them immediately into national currency. The amount of ecu notes and coins that would remain in circulation would therefore remain insignificant regardless of how much of them are produced.

3) The parallel currency as a unit of account:

a) For large corporations with widely dispersed sales and plants a supranational currency like the ecu might become convenient for accounting purposes if such corporations had to pay taxes on the basis of their accounts in ecu or if they felt that consolidated accounts in this currency were used by the markets to determine the evaluation of the firm. The latter effect might arise only once corporations no longer have a distinct nationality, as at present. In dealing with the general public for such corporations it might also be convenient to quote one European price (net of local taxes) in the parallel currency. This use of the parallel currency would therefore seem to depend on the extent to which the Community can be viewed as one market. The 1992 internal market programme should therefore boost the demand for a supranational parallel currency as a convenient unit of account for the unified European market.

For long term contracts the stability or predictability of the purchasing power of the currency is an important element. For long-term supply contracts, long term investments and similar transactions the currency with the best perspective of a stable purchasing power might be adopted, even if it involves higher transactions costs since for this type of contract an initial cost in terms of acquiring information about the qualities of the currency to be used is not as important. In this respect a parallel currency that is expected to have a more stable purchasing power micht be used in place of the domestic currency even for domestic transactions.[6a)]

The general principle that comes out of the analysis of this section is that money is useful only to the extent that is is known and therefore accepted by others. If a parallel currency is initially used only by a few it will remain of limited usefulness, the same way a telephone becomes useful only if there are other telephones to be reached. Viceversa, this also implies that once a critical mass of users has be attained a parallel currency could spread quite rapidly. However, since these economies of scale might be considered external to each individual user of money there might exist more than one stable equilibrium, i.e. once a certain currency has been choosen as a vehicle currency for international transactions private markets would have no incentive to change this arrangement, even if another currency might offer a more efficient solution.

III) The Ecu or the DM?

The previous section has already discussed the factors that would determine the success of a parallel currency, this section can therefore be brief; it will just indicate what factors would favor the ecu (in its present basket definition) or the DM.

In the use of the parallel currency as a store of value, on the one hand, the ecu would be the appropriate instrument for international investors or issuers to hedge against exchange rate variability among its component currencies. But, on the other hand, the DM has the advantage that it might continue to appreciate against the ecu. However, as argued above, expected exchange rate changes can be expected to play only a minor role for zero interest bearing instruments like cash, travelers cheques and checking or sight accounts and would be reflected in interest rate differentials for all interest bearing assets. Likewise the existence of notes and coins in DM, but not in ecu can also be expected to be relatively unimportant.

In the use of the parallel currency as a medium of exchange a national currency has the advantage for both international commercial transactions and international tourism that in one country there would be no transaction costs whereas there would be transaction costs in all countries with the ecu. This factor seems to favor the DM. However, since there is a certain arbitrariness in the choice of a vehicle currency the ecu would be as viable as a vehicle currency as

the DM one a critical mass of regular users has been established.

In the use of the parallel currency as a unit of account the ecu would be the more appropriate instrument for large large European corporations if accounts in ecu are recognized for tax and other purposes. For long term contracts the more stable purchasing power of the DM would seem to favor the DM.

On balance it is not clear which of the two main contenters for the role of a parallel currency has the advantage. However, the economies of scale in this area and the certain arbitrariness in the choice of a vehicle currency imply that the starting position might determine to a large extent the final outcome. The years around 1992 might therefore be decisive for the choice of a European parallel currency, if one develops at all. Since the relative importance of the factors examined above varies across countries and also across economic sectors it is possible that both the DM and the ecu spread to different regions and sectors.

IV) Benefits and Dangers of a Parallel Currency

In assessing the benefits and costs from the emergence of a parallel currency it is important to make a distinction between the benefits and costs that arise from the conditions that permit the emergence of a parallel currency

and the additional effects of the existence of a parallel currency. For example, a general reduction in exchange rate transactions costs for the corporate sector would increase the potential for large shifts in balances across national currencies which might destabilize monetary policy in some cases.[6b)] However, this potential exists even if there is no parallel currency, this effect can therefore be counted as a cost of a parallel currency only if it is somehow increased by the availability of a parallel currency.

This potential for currency substitution, which is often considered as the most important danger of a parallel currency, should therefore rather be considered a cost of the 1992 programme for the integration of financial and other markets. If the integration of financial markets and a certain degree of exchange rate stability can be expected to lead to currency substitution at any rate, the question arises whether this problem might be more easily managed if the currency substitution is channeled towards a supra-national currency like the ecu or one national currency like the DM. If currency substitution goes towards the ecu it would affect the monetary aggregates of all component currencies in a similar way, and the size of the impact would be smaller than if the DM alone became the main focus of currency substitution.

A similar line of reasoning applies to the argument that a parallel currency would facilitate the creation of a monetary union. The emergence of a parallel currency should be regarded more a sympton than a cause of a high degree of

monetary integration.

A benefit that might come from the existence of a parallel currency and not just from a high degree of monetary integration is that a parallel currency would allow the private sector to exploit for international transactions economies of scale and save on transactions and information costs.

Another effect of a parallel currency that crowds out national currency at least partially (which is difficult to classify as a cost or benefit) is that currency substitution could have important implications for seigniorage if it leads to an increased demand for monetary base in the parallel currency. If the a national currency like the DM became a parallel currency there would be a transfer of seigniorage from the other member states to Germany, if the ecu became a parallel currency there would be transfer from all member states to the, presumably supranational, institution that issues the ecu. An order of magnitude of the potential transfers can be calculated for both cases quite easily if only the cash component of the monetary base is taken into account:

i) If the currency substitution goes towards the DM the the base for the transfer of seigniorage would be total currency in circulation of the Community minus Germany, which is about 150 billion ecu. Each percentage point shift in the cash holdings of private agents would therefore lead to a transfer of seigniorage of about 1.5 billion ecu from the rest of the Community towards Germany (or whatever country

issues this parallel currency). If the crowding out of national currencies is not evenly distributed the corresponding loss of seigniorage would be concentrated in the countries whose currencies have been most strongly displaced.

ii) If the currency sustitution goes towards the ecu the appropriate base would be total currency in circulation of the entire Community, which is about 200 billion ecu. Each percentage point shift in cash holdings would therefore lead to a transfer of seigniorage from national governments to the issuing institution of about 2 billion ecu and again the corresponding loss of seigniorage would be concentrated in the countries whose currencies have been most strongly displaced.

V) What Could be Done to Make the Ecu a Parallel Currency?

If it is considered desirable for the ecu to become a parallel currency and if private market developments cannot be expected to lead to this result without some official intervention it is necessary to consider what could be done to encourage the use of the ecu. Based on the analysis of section II above this section considers therefore briefly the potential impact of some of the measures that are most often discussed:

1) Lifting all restrictions on the use of the ecu.[7] This might have an impact on the use of the ecu for accounting purposes, especially, when the exclusive use of the national

currency is no longer mandatory for fiscal purposes.

2) Making the ecu legal tender. A non-preferential legal tender status would just be equivalent to allowing the use of the ecu in domestic transactions as well. A preferential legal tender status with less than perfectly fixed exchange rates would have an impact mainly through Gresham's law.

3) Printing official notes and coins. This would have an impact only if there was a demand ofr ecu notes and coins. Without such a demand it would be difficult to bring this currency into circulations.

4) Strengthening the money and short term capital market in ecu. A package that is designed to achieve this might contain the following elements:

a) Creating an institution that would be a lender of last ressort for the ecu market.

b) Increasing the use of the ecu for transactions by the public sector to give the markets the necessary critical mass.

c) Linking the official and the private ecu. This measure would have no impact on the demand for the ecu per se; it would lead to a broader ecu market only if the ecu was subsequently used more actively by central banks for interventions and for settlements among official institutions.

5) Declaring the ecu to be the future European Currency. Since the switch to a new currency might involve a learning process for many (presumably the smaller) operators a declaration that the ecu will become the European currency sometime in the future would encourage agents to go through this learning process earlier. The impact of such a measure

would probably be increased if at the same time a decision was also taken regarding further adjustments in the composition of the ecu.

Most of the measures analyzed here would not appear to increase substantially the potential for currency substitution, they would merely have the aim of channeling any currency substitution that happens anyway towards the ecu. Given that the demand for ecu balances is determined mainly by market forces the only way to promote the ecu seems to be to make the use of the ecu more interesting for private agents. Since ecus can be created by the private sector cheaply through the bundling of national currencies the creation of ecu balances by official institutions would have little independent effect.

VI) Suggested Guidelines for a Discussion about the Parallel Currency Issue.

The analysis in this paper suggests that it might be useful to start a discussion about the parallel currency issue with an evaluation of the prospect that the 1992 programme will on its own be sufficient to lead to the emergence of a parallel currency. If such a development seems likely it should be viewed as a side benefit or cost of the 1992 programme. The question that arises in this case is only whether or not it would be useful to channel this process towards the ecu and how this could be achieved.

If it is considered unlikely that the 1992 programme will on

its own lead to the emgergence of a parallel currency it is necessary to decide first whether a parallel currency is desirable or not and whether the ecu or the DM should fulfill this role. Only if it is deemed desirable that the ecu should fulfill this role the question arises what could be done to make this happen. In this case stronger measures might have to be taken than those that would be sufficient to channel a process of currency substitution that takes place anyway.

Footnotes

1) Ceteris paribus means in this context: unless at the same time transaction costs in the basket currency decline by more than the transaction costs in the component currencies.

2) However, the NL/D case provides an illustration of the -small- interest rate differentials that can persist even in an environment of ex post stable exchange rates.

3) This argument assumes both parties in the transaction desire to obtain national currencies.

4) At present only the national currency is legal tender in all Community countries with the exception of Luxemburg where the Belgian Franc is also legal tender.

5) See D. M. Walker, "Oxford Comanion to Law", Oxford, Claredon Press, 1980 page 755.

5a) A historical example for a preferential legal tender status is the Vereinsmünze created by Vienna Coin treaty of 1857. The Belgian Franc is legal tender in LUX?

6) This effect could operate only up to a point since if many payments are being made in the parallel currency it would become a useful medium of exchange.

6a) Since each agent has a different consumption basket, different currencies offer a stable purchasing power for different agents. For a consumer outside Germany the ecu could under some curcumstances offer a more stable purchasing power than the DM even if the DM appreiciates against the ecu.

6b) Currency substitution would present a problem for the control of inflation only if it affected all monetary aggregates. Since the demand for cash (currency in circulation) is likely not to be affected by this phenomenon control over prices could be retained by limiting the rate if expansion of this aggregate. However, this might be operationally difficult to achived and would not allow the national central banks to take into account other variables, such as interest rates.

7) At present no systematic information is available about the legal obstactles to the use of the ecu for all types of private and official transactions in the different members of the Community.