

Financial intermediation and currency reforms: who invented the Euro

European economic integration, EMU, and convergence

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Proposal

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Using the random matching framework we model a monetary union as a possible endogenous outcome of interaction of big international banks, essentially the Bayesian Nash equilibrium, and then show that, depending on the externalities, the single currency might be accepted by other economic agents.

We show the following: Being producers of a large portion of (inside) money and considered by other economic agents to be the sources of the most confident signals about the financial market health in particular, big banks play a crucial role in the environment with asymmetric information. Whether economic agents have expressed the need in the reform, whatever the procedure adopted, and whoever then provides coordination, the outcome of the reform will depend on the position of the big banks. Thus we show that the rather successful introduction of Euro is largely due to the supportive role of big international banks.

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General context: monetary union and economic integration

In the long run development may lead to either convergence or divergence. This is an old theoretical issue which can be re-explored today in context of coordination games. One may still doubt the theory of convergence as the universal view on the world economy and regard globalization as an essentially different phenomenon but in Europe, at least during the post-war period, the social and economic development demonstrates convergence and integration.

In this context, the monetary union is considered to be a large-scale adjustment of financial sector. This is a tremendous currency reform, challenging the market, informal institutions, and the political system, having significant welfare effect and implications for policy-making. Yet this is a natural part of the development process at a stage when the question ‘do we really need a single international currency and single monetary policy’ is supposed to be answered.

Further questions like ‘what would be the right procedure’ or ‘what would be the optimal fiscal measures’ have already been discussed but still are of practical interest. Firstly, because it will take long time to realize effects of EMU on macroeconomic fluctuations, allocation of resources, and welfare; secondly, because the European market is expanding and other parts of the world are going through the similar development process.

Introduction of Euro: the problem of coordination

In terms of positive economics, introduction of Euro simply means that on some specified day, economic agents throughout the world have to re-nominate their liabilities held in crowns, francs, marks, and shillings in a new currency. The Euro was advertised by the authorities as a possible choice but, in fact, economic agents were free to end up with any choice. Since efficiency of money is associated with increasing return, this is a standard case of multiple equilibria and, therefore, the outcome of the reform is largely a question of coordination.

To what extent the Euro is an endogenously driven innovation and to what extent it is inflicted by the governments or blue chips, from the perspective of its stability does not really matter (surprisingly?) and this will be shown in our model. However, we share the view that a large part of business, especially in financial sector, had been interested in a single European currency and the changes in the broad money structure in Europe give evidence of this. [*reference will be given*] With theoretical research and numerous calculations, many of economists came to a conclusion that a single currency should bring about higher efficiency of exchange and, if a sufficient number of agents will accept Euro for their use in intra-European and international operations, this equilibrium will also be superior (Pareto-dominating any other outcome including the status quo).

If so, then, due to the complexity of the deal and the presence of externalities, a coordination device is needed to ensure a move towards a new, single-currency equilibrium. Presumably, it should be a confident formal institution which had to present an understandable and transparent but smartly hazy procedure. Sufficiently transparent to be confident but hazy enough to prevent hampering collective action in response to unanticipated negative signals.¹ In practice, given the institutional structure of the European economy, the reform could hardly be designed and implemented without the leading role of legislative and monetary authorities.

¹ In fact, the calendar of the reform published soon after the Maastricht Treaty (1994) contributed to the transparency while the step-by-step plan of the introduction of Euro (from fixing exchange rates to suspending national notes) can be regarded as the smartly hazy element of the procedure.

Therefore, it was the task of the organisers to persuade each economic agent of that (a) keeping with Euro after the reform will benefit the economy and (b) the organisers are capable of pushing a sufficient part of the market into the Eurozone (not only in the geographical sense), so the externalities will easily be recognised and the economy of scale will outweigh the costs of transition even in the short run.

Euro and inside money

Quantitatively, the ratio of inside money to the outside money today is around 30:1 [*figures and references will be given*]. So the perspectives of Euro is essentially the question of a single monetary policy and exchange rates throughout the market, but not of what units of account will be used by economic agents.

Having applied the random matching model (Matsuyama et al, 1993; Kiyotaki and Moore, 2001), we may say that whether or not agents will accept the new currency, depends on their beliefs in its stability and longlife. These beliefs are subject to the confidence of both the coordination device (managing the transition) and the issuer of the currency. And it is essential here is that the EMU implied a change of the issuer of the currency. Euro is emitted by the ECB, a newly created entity, whose authority has just been confirmed by a multilateral international treaty and who is actually not controlled by any well-established institution.

We can assume that the immature pan-European legislature is much less trusted than any national ones. This is what we mean by saying that the monetary union is a huge step ahead and that the EMU challenges institutions and the political system. Moreover, our impression is that the well-recognized bureaucracy and inefficiency of the Stuttgart- and Brussels-based offices significantly reduce the chances for the European Central Bank to win public confidence.

We can imagine that if something will go wrong, economic agents will re-nominate their liabilities in more confident than the Euro currency, say, in US dollars or Denmark crowns. We can also imagine that there are many private, internationally active, well-established and confident banks whose papers, in case of failure of the reform, can quickly substitute for the failing currency.

So we argue that the initial success of Euro was largely (it is tempting to write 'solely') due to the support of the reform by the big international European banks. Would it happen that they lost the confidence in this enterprise and publicly withdraw their support, the Euro will fail in a moment. But, of course, not the economy. We model monetary union as a possible endogenous outcome of interaction of big international banks, essentially the Bayesian Nash equilibrium, and then show that, depending on the externalities, the single currency might be accepted by other economic agents.

Novelties

This research:

- puts a financial intermediary in the centre of the analysis and considers both the emergence and, then, the progress of innovations (spreading through the economy),
- considers deposits in their interrelation with the credit,
- regards money as a differentiated media of exchange, a bundle of monetary assets, probably, with continuous financial characteristics, the substance which is largely

endogenous and constantly evolving with demand as well as technological and institutional developments,

- accounts for asymmetry of economic agents in market power, access to information and, with less emphasis, risk preferences, thus derives macroeconomics implications from interaction of agents.

Principle references

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