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Reinforcing the Euro with national units of account

Gerald Holtham [Cardiff Metropolitan University, UK]

Preface

Europe is committed to a single currency but the Euro is not working well. Persistent stagnation weakens European ties among deficit countries while persistent requirements for bail-outs or debt relief weakens support in Germany and other countries which are net contributors to Union budgets. Many policy-makers see the solution in closer fiscal integration but a referendum on closer integration now would be in difficulty everywhere.

The point of the Euro is to facilitate the operation of the single market and reduce transactions costs, but its drawback is that it leaves countries that have slower productivity growth and therefore faster growth of unit labour costs without adequate means of adjustment. Competitive deflation is the only current solution and it is proving extremely costly in economic and human terms. This monograph proposes a solution that makes possible a sustainable single currency in the current Europe of nations. It does not in itself solve all current problems. Issues of historic indebtedness and fragility of banking systems would remain outstanding but this solution would make their recurrence much less likely.

Responding to Euro crisis: a better way

Stanley Jevons, one of the more distinguished economists in the history of the subject, credited with the "marginal revolution" in the 19th century, wrote as follows.

> "It is in the highest degree important that the reader should discriminate carefully and constantly between the four functions that money fulfils, at least in modern societies. We are so accustomed to use the one same substance in all the four different ways that they tend to become confused together in thought. We come to regard as almost necessary that union of functions which is, at the most, a matter of convenience, and may not always be desirable. We might certainly employ one substance as a medium of exchange, a second as a measure of value."[1]

To save the Euro as a single currency, as a unique money, we have to analyse what that means. What are the functions of money? First it is legal tender, a means of facilitating transactions and settling accounts; second it is a store of value; third it is a unit of account, the way we keep score and compare the value of one thing to another. Jevons identified a fourth function, that of a standard of value, though that is more obscure and we confine our attentions to the first three.

When we consider the successes and failures of the Euro, we observe that these divide according to which of the functions of money most concern us.

[1] Stanley Jevons, *Money* (Kegan Paul,Trench, Trübner and Company, 10th edition, 1893), p.16.

Consider first the advantages of the Euro:

- Transactions costs are reduced: currency exchange is eliminated within the EU;
- Price transparency is enhanced in single market: everything is priced in Euros;
- International seigniorage is obtained when other countries use the Euro as a reserve currency;
- Branding for EU: many see the Euro as a signifier of European unity and a concrete symbol of the Union.

The first advantage relates to the Euro as legal tender; the second relates to it as a unit of account and the third to its role as a store of value. The fourth is not a pure monetary function and is derivative of the other three.

The disadvantages are fewer but very powerful:

- Europe is not optimal currency area, i.e. an area where a single monetary policy and external exchange rate is compatible with achieving stable inflation, full employment and a sustainable balance of payments in all parts of the area.
- If prices and competitiveness get out of line among countries, there is no way to adjust except competitive deflation

Everyone should agree that the principal trouble with the Euro is that deficit countries cannot devalue and are condemned to competitive deflation that exacerbates, rather than relieving, their debt burdens. They cannot gain competitiveness relative to Germany without outright deflation if Germany itself wishes to have low or no inflation. And no exercise of thrift or structural reform on their part will restore competitiveness in a world of deficient demand, without impossible strains on the social fabric.

Separating the functions of money

The solution is to distinguish two of the functions of money: legal tender and unit of account[2]. Note that the most important of the advantages claimed for a single currency stem from its function as legal tender, i.e. means of exchange and of settling debts. With a single legal tender, the transactions costs of currency conversion are eliminated. Providing a common unit of account is also one of the advantages of the Euro but that gain does not require the Euro to be the unique unit of account. Europe at present can support having a single way to settle bills. Yet it cannot currently sustain having a single unit of account because that removes a necessary means of adjusting relative price levels. We have arrived at the situation described by Jevons over one hundred years ago where having one "substance" fulfil all the functions of money has indeed become worse than unnecessary; it has become undesirable.

[2] This possibility has been discussed in other contexts. Willem H. Buiter "Is Numérairology the Future of Monetary Economics?" *Open Econ Review* (2007) 18, pp. 127-156, discusses the idea in the context of finding ways around the lower bound on interest rates. He questions whether the numéraire or unit of account would be used in private transactions, an issue acknowledged in this paper. He also questions the policy objective of stabilising prices in the numéraire, which this paper does not propose. Einzig P. (1949) *Primitive money in its ethnological, historical and economic aspects.* Pergamon, Oxford (2nd edition, 1966) gives historical examples of societies where the medium for settling transactions was different from the unit of account.

The issue may be put as follows: how can Europe preserve a single legal tender and primary store of value while restoring the capacity to adjust relative price levels that used to be conferred by realignments among national currencies? Note that when a currency was realigned with others, what was changing was its relative value, its relative position as a unit of account – not its position as legal tender. Each country can keep the Euro as its sole legal tender but should introduce a national unit of account (Nua). The government would make all its contracts with suppliers and its wage agreements, payable in Euro but indexed to the Nua. It would try to persuade other economic agents to do similarly with some combination of tax incentives and moral suasion.

The Nua could exist simply as an index number although it could also be turned into a free-standing unit of account by specifying a rate of conversion of Euro into Nua. In the latter case, the government could even legislate that all contracts between residents, all domestic price lists and all wage slips should be expressed in both Euros and Nuas. Contracts that did not specify a Nua prices could be made unenforceable at law. One could start at par (1 Euro = 100 Nua). Communications with non-national, non-residents would not be affected, nor would sight or any short-term bank deposits usable to settle transactions, which would be fixed uniquely in Euro.

The government should take the power to reset the Nua index or the the relationship between the Euro and the Nua by decree, subject to certain protocols or rules of the game, agreed with other Eurozone countries. In all cases where agreements are Nua-indexed, the Euro price would change. In dual price arrangements, agents would expect the Nua price to be preserved when the conversion rate changes. The government will adhere to this principle in its own transactions and rely on public and market pressure to enforce it more generally. It could also confer tax advantages on contracts that index to the Nua. It can thereby effect a change in the price level without having a separate circulating currency. Of course, that can be strictly enforced only for those deals where the government is a participant. In other cases the government would rely on whatever tax incentives it could devise and on moral suasion, an appeal to people to play the game in the collective, national interest. No doubt, some people would seek to resist a decline in their receipts or earnings in Euro by attempting to peg their prices or wages to the Euro. Yet that risk exists with a national currency, where inflation may well follow any depreciation. The risk is lower, the more depressed is the economy. And public, consumer pressure should induce commercial organisations to play along.

If people more or less played the game, producers would find their relative wage costs had fallen and margins on foreign sales, where prices were fixed in Euros, were better than margins on domestic sales, fixed, for the moment at least, in Nuas. Domestic goods would be cheaper than imports. The desired competitivity consequences of devaluation would be achieved. In effect the Nua acts as a co-ordination device that facilitates a change of the general price level in Euros while reducing the need for inflation or recession as a means of bringing it about.

There is no assurance that altering the Nua value would have the desired effect on the general price level. Like a devaluation it would probably work better in circumstances where weak aggregate demand restricts the ability to push up or maintain prices. Devaluation itself can fail and result only in inflation if there is a determined resistance to any reduction in real wages. But if it worked to any degree, it would represent an improvement on the current situation. In any case, if a deficit country cannot operate a Nua arrangement, it is unlikely to be able to sustain indefinitely the austerity demands of an unembellished single currency.

The Nua would apply to prices for current goods and services. There would be no attempt to alter the value of existing bank deposits. However other financial instruments, like equity and bond prices, would be dual-priced. That means yields on securities originating in a country thought to have an excessive price level would be higher owing to the perceived risk of devaluation. That should provide a natural corrective in countries where borrowing is rapid and domestic inflation is higher than the European average. The sanctity of bank deposits however is necessary to preserve a single medium of exchange and to prevent speculative bank runs and switching of deposits within the Euro-zone. Cheques or drafts drawn on short-terms deposits are, like notes and coin, legal tender and it is essential that only Euros exist as legal tender.

Given a unified banking system, all banks would pay the same for their reserves but would be forced to discriminate in their lending, which would be double-denominated so would effectively be in Nua. This system would be enhanced by common banking regulation and a truly unified banking system but does not require common fiscal policy.

Effects on the banking system

Banks in such a system would be changed institutions. Their liabilities in the form of deposits would be in Euros though they could also issue double-denominated bonds. Many of their assets would be effectively in Nua, implying a currency risk in any country where devaluation was at all likely. That would have two consequences. Banks would have to hold sufficient capital to remain solvent in the event of devaluation and they would have to hold or have access to sufficient Euro reserves to meet liquidity requirements, i.e. demand for payments in Euros. This would achieve two reforms that have been urged on banks and central banks since the last crisis[3]. A capital ratio of at least 20 per cent would be de rigueur in such a system and banks would have to hold enough reserves at the ECB or to have adequate Euro collateral to meet foreseeable Euro demands. The banking system would become more like the reserve-constrained system described in economics text books – which has seldom corresponded to reality. In recent years banks made loans being confident they could always borrow reserves from the central bank and the latter always supplied, relying on interest rates to control demand and therefore regulate the volume of credit. When loans entail unshiftable risk their supply will be genuinely constrained by bank capital or reserves. To the extent that banks finance loans by issuing Nua bonds they become pure intermediaries between savers and borrowers and do not expand the money supply.

Such a system could lead to the growth of new financial intermediaries. If you wanted a mortgage loan you would want it in Nua. The banks would be reluctant to make long-term Nua loans when their liabilities were short-term Euros. To finance it they would have to issue Nua bonds themselves or some other financial institution would do so. Who would hold these bonds? Pension companies, whose liabilities are pensions, denominated in Nua, would need Nua assets. They would buy the bonds of banks or other financial intermediaries who would in turn lend to house purchasers. Long-term financial obligations would all tend to be in Nua therefore. But all transactions would be in Euro. The house you buy would have a Euro price. You would raise a mortgage from the financial intermediary denominated in Euro but the contract would specify that repayments are indexed to the Nua. The mortgage money would

[3] There have been a number of suggested reforms, some going further than the implications of this paper's proposals. See: Laina, P. (2015) "Proposal for Full-Reserve Banking: A Historical Survey from David Ricardo to Martin Wolf." University of Helsinki.

arrive in your bank as a certain number of Euros and you would pay for the house in Euros. If the Nua was devalued later, you would not care because your debt is in Nua. The financial intermediary would not care because it is charging you more interest on its Nua mortgage to you than it is paying the pension companies on the bond they are holding. Finally the pension companies would not care because the pensions they pay out follow the Nua too so it is immaterial that the Euro value of the bond they are holding has gone down.

It is largely banks who must carry exchange risk in this system. Importers and exporters could hedge risks, at a price. Of course other people can opt to carry exchange risk if they wish but they will not have to do so. The banks will exact a price for that risk because they will charge more for Nua than for Euro loans. This is likely to restrict the size of the banking system because it will lead to disintermediation whereby other institutions borrow and lend directly in Nuas.

The effect would be to turn banks into utilities whose activities supply the standard means of exchange and not only provide the maturity transformation that was their historic role, converting short-term savings into longer-term loans, but also shoulder the bulk of exchange risk in a country – at a price. They would have a smaller role in speculative lending and could not risk gearing their balance sheets – activities that other institutions not involved in supplying the exchange medium would take over. This would achieve, as a by-product, the kind of banking reform and separation of financial functions that many economists advocate.

There would be some asymmetric features of the situation that some would find disturbing. Freedom of contract means people who wished to take out Euro loans could do so, just as some people today opt to borrow in foreign currency where there is a lower interest rate. However, it must be supposed that most people and companies whose pay or revenue would follow the Nua in the event of realignment would opt to borrow in Nua. That means bank shareholders would bear the brunt of devaluation or the gains from revaluation. For most people, Euros would be 'outside money'; as debtors they would be indifferent to realignments but as depositors they would be concerned. Devaluation would entail a positive real balance effect whereby bank deposits became more valuable in terms of what they would buy domestically while a revaluation would have the opposite effect.

At the same time the claimed advantages of a single currency would be preserved. Prices would be quoted in the same numeraire in all countries, supporting the single market; there would be no need to change currencies to travel abroad, bank deposits, cash and coin would have the same significance everywhere, reducing many transactions costs.

Monetary policy

The ECB would of course retain responsibility for managing the Euro. Since all prices in Europe would be quoted in Euro as well as Nua, European inflation in Euro would be well defined and the ECB could continue to target it by setting policy interest rates as it does now. Doing so would set deposit rates across Europe so there was no tendency to move deposits between countries. However, bank loans would be priced differentially according to the perceived risk of realignment. The rates would be set by the banks and the market and the ECB would not intervene.

Those different interest rates would be appropriate in circumstances where devaluation was anticipated because of higher domestic inflation than in Europe generally. The perverse effect of the current single currency, whereby higher inflation implies lower real interest rates providing a positive feedback and still higher inflation, would therefore be eliminated. At present, of course, it is not the case that countries requiring devaluation have relatively high inflation. They are generally uncompetitive so the level of domestic prices is too high but they are also depressed so high interest rates is the last thing they need. But in the proposed system, the remedy is at hand – a substantial devaluation of the Nua. That would improve competitiveness and demand via net exports. The positive real balance effect could also stimulate domestic demand. The prospects for a devaluation are diminished after a significant one has occurred so Nua interest rates would fall.

The ECB would remain indifferent to such developments, concentrating on managing the Europe-wide Euro inflation rate. In practice, however, the EU would need to develop rules of the game covering Nua revaluations. These would happen on the initiative of national governments but on the understanding that certain objective criteria were fulfilled as monitored by the Economic and Financial Committee of the EU. The intention would be to eliminate devaluations to gain competitiveness gratuitously when a country's circumstances in terms of unit labour costs or employment were no worse than its neighbours.

Speculative attacks in such a system could only take the form of trying to borrow in Nua or shorting Nua-denominated financial instruments. Such attacks would automatically drive up the interest rate on the loans or instruments concerned.

If the ECB followed a hard currency policy and delivered low European inflation, the Euro would be a good store of value. Indeed the ECB would be relieved of the need to make unlimited loans against very poor collateral as it has to do at present to hold the Euro together. Given a hard-currency policy for the Euro, devaluations of Nua would be much more common than revaluations within the EU. As the sole store of value and medium of exchange for Europe, the Euro would be an attractive currency world-wide, earning seigniorage and fulfilling its symbolic function for the EU.

Of course, as already conceded, announcement of such a system would not resolve all current problems. That may require some debt forgiveness and for some European banks to be declared insolvent. In a perfect world, surplus countries would also expand domestic demand with looser fiscal policies allowing heavily indebted deficit countries to grow without themselves having to resort to further debt finance. Since that will not happen, the convalescence of the European and world economies will be long - even with banking reform and Nuas operating alongside the Euro. Yet with those innovations, the Euro can be preserved, the European Union can resist further erosion and the slow march back to stable prosperity can begin.

Author contact: gholtham@cardiffmet.ac.uk

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