Chapter 9

Professor Tim Congdon
Lombard Street Research

Why the euro will fail

The argument of this chapter is controversial: it is that neither the EU, nor a subset of its members, will have a single currency on 1 January 1999, 1 January 2002, 1 January 2003 or, indeed, at any date in the relevant future. The coming failure – like the previous failures to reach the 1997 EMU deadline and indeed to meet a previous 1980 target set by the Werner Committee in the early 1970s – is already inevitable. The explanation is that Europe's political leaders have not understood the essential nature of the project on which they have embarked.

For most of these leaders, the unification of currencies consists, primarily, in the redenomination of units. They think that currency unification is similar to decimalization or metrication, and they correctly believe that these processes of redenomination – although expensive and a nuisance – change nothing fundamental in a nation's political system. While often urging currency unification as a step on the path to eventual political union at a later date, the leading supporters of EMU have not recognized that currency unification is impractical – indeed, impractical to the point of impossibility – without the prior or simultaneous establishment of political union. Further, they have not seen that the requisite political union must include a centralization of fiscal powers far more comprehensive than envisaged in the Maastricht Treaty.

Many people involved in EMU have focused on the convergence criteria specified in the Maastricht Treaty, as if it would be an easy step from the fulfilment of these criteria to currency unification itself. Fulfilment of the criteria would greatly facilitate unification, but they are only necessary conditions for the process to start. They in no sense define, or describe, the actual mechanics of moving from the present situation to the intended goal of a shared single currency. In fact, the convergence criteria are best interpreted as being necessary and (perhaps) sufficient conditions for the success of a fixed-exchange-rate area. They are most certainly not sufficient for the completion of a monetary union. The focus on the convergence criteria in the political debate is a serious misdirection of emphasis.

The prediction of EMU's failure made here may seem surprisingly bold and unequivocal. But it is important to remember one key point: there is no example in history of significant sovereign nation states sharing a single currency.

The three functions of money

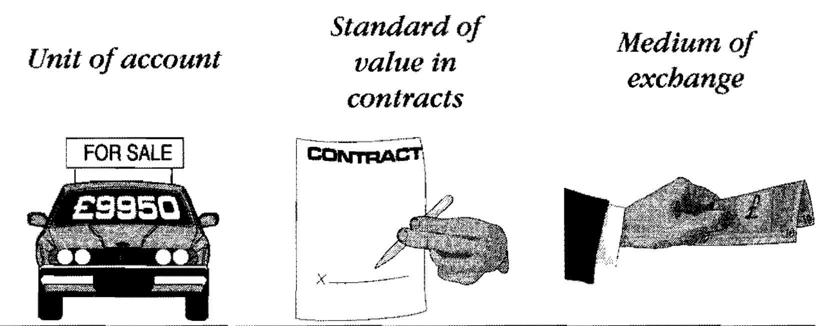


Figure 6.1

As is well known from the textbooks, money has at least three functions – to serve as a unit of account in price displays; to provide a standard of deferred value in contracts; and to act as a medium of exchange in transactions. The view that redenomination is the heart of currency unification stems from a misconception about the nature and relative importance of these three functions. The core of this misconception is to take the unit-of-account function as the crucial one in moving towards EMU. Many advocates of EMU seem not to have understood that they must also specify – at all stages of the process – how a money, or a number of monies, are to fulfil the two other functions.

In fact, the two other functions of money are not only vital for everyone who uses money, but also create most of the serious practical difficulties in currency unification. In particular, money can act as a medium of exchange only if it has *value*. The fact that money possesses value has a number of vital implications. In all modern societies, where money's original link with a commodity base has been broken, the conferment of value on money is a highly political matter. The note liabilities of the central bank (which is banker both to the government and the banking system) are 'legal tender'. So their nominal value depends on the force of law, not on their intrinsic value. Bank deposits can also be used to make payments and are therefore money, but they have this property only because of a general belief that they can be converted back into notes. In short, the nominal value of money, and hence its ability to act as a medium of exchange, depends on the force of law or, to put it another way, on the power of the state.

But the state's power to fix the nominal value of money does not mean that it can also, by mere proclamation, stabilize the real value of money. The value of money relative to goods and services in the aggregate depends, like the value of individual goods and services to each other, on supply and demand. If too much of a money relative to the quantity of goods and services is created, its value in terms of goods and services declines. Similarly, if too much of one money, *A*, is created relative to the quantity of another money, *B*, the price of money *A* in terms of money *B* ('the exchange rate') falls. This vulnerability of the exchange rate—while separate national currencies are still legal tender and have value—is crucial and needs to be strongly emphasized.

The state has the power to fix weights and measures; it undoubtedly also has the power to fix, within its own borders, the nominal value of the notes issued by its banker. But these are merely powers of denomination. It cannot guarantee the real value of its banker's note liabilities, even within its own borders; and it cannot give a totally safe guarantee about the value of these notes in terms of another currency. Of course, it may organize monetary policy in order to attempt to stabilize either the real value of a currency (i.e., the domestic price level) or a currency's international exchange rate. But its scope to organize monetary policy in this way must not be confused with its much simpler power of legal-tender denomination.

Much of the conceptual trouble in European currency unification stems from this confusion. It will be argued later in the chapter that the confusion is at its most grotesque in the proposals made by the European Commission and the European Monetary Institute for the change-over from the existing national currencies to the new single currency. The practical results of the proposals, as they currently stand, are likely to be at best bureaucratic muddle and, at worst, complete chaos. As the citizens (and policy- makers) of the EU begin to experience the muddle, the project will be abandoned. (Or, at any rate, it will be suspended, probably for another decade or two.)

The confusion between the unit-of-account and medium-of-exchange functions of money is fundamental. But it is the source of only some of the practical difficulties of EMU. The chapter will start with a review of the practical difficulties that Europe's monies will face, because of the EU's attempt to replace them with a new single currency, in fulfilling their functions as units of account and standards of deferred value.

Unit of account: the impact of EMU

The advantage of money, as a social institution, is that it constitutes a single unit of account within a defined area, which nowadays is invariably a nation state. As all domestic transactions and contracts are expressed in terms of this single unit of account, 'transactions costs' are drastically lower than if agents have to choose between several units of account. Of course, this advantage is lost in external transactions between agents in different countries, when conversion between currencies becomes necessary. A central aim of EMU is to reduce the transactions costs in such external transactions within Europe.

EMU would accomplish this end most neatly if the existing national currencies were abolished and replaced by the euro on a single day. However, the European Commission's Green Paper[1] on the subject rejects the 'Big Bang' approach of a sudden and total change, on the grounds that it would pose 'insurmountable difficulties'. Instead, the Commission proposes that Stage Three – when the exchange rate mechanism gives way to the single currency – is to consist of three periods, with a total length not exceeding four years. The three periods are:

Phase A - when nothing much happens, apart from the formal establishment of the European Central Bank;

Phase B - when exchange rates are 'irrevocably' fixed and the euro is created 'in its own right', so that transactions can be increasingly denominated in euro rather than national currency; and

Phase C - when the euro becomes legal tender and the entire issue of national currency notes is to be exchanged, over a period of months, into euro notes.

While the official documents are not altogether clear:

1 *European Commission, "One Currency for Europe", Green Paper on the practical arrangements for the introduction of the single currency, 31 May 1995.*

- ***Phase A*** appears to be the run-up to the start of Phase B on 1 January 1999;
- ***Phase B*** is to have a maximum length of three years (i.e., until 31 December 2001); and
- ***Phase C*** is to start (at the latest) on 1 January 2002 and to be completed quite quickly thereafter. Phase C is to last six months, according to the EMI Report[1], but only 'a few weeks', according to the Green Paper.[2]

Despite the ambiguities, the intention is evidently to have a period of dual pricing in Phase B and of parallel currency circulation in Phase C. In order to convert the national currencies into a single currency, there is to be a period in the relevant countries when the national currency and the euro are to coexist. There are to be two monies, or at least two units of account, at the same time. Clearly, one of the main advantages of money – that it reduces transactions costs because it constitutes a unique unit of account – is lost during the period of coexistence.

The increase in transaction costs during this period will depend partly on its duration. Retailers and banks are only now beginning to consider

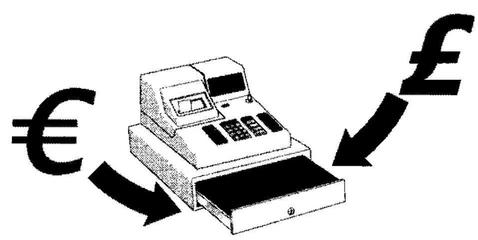


Figure 6.2

1 *European Monetary Institute, 'The change-over to the single currency', November 1995, page 3.*

2 *European Commission, op. cit., page 17*

this question, and to recognize a whole host of new and awkward problems. The evidence given to the Treasury Committee from retailers is clear-cut. The cost of change will be heavy and dual pricing is unacceptable if it is to last for any length of time. In evidence to the Treasury Committee of the House of Commons in 1996, Marks & Spencer put the cost of installing all the new systems and technology at £100 million, which implies a much larger figure (perhaps over £2000 million) for the retail sector as a whole. According to Mr. Bogg, 'There is a significant cost to systems if you are going to take dual currency at the point of sale because the software has to be adapted to do that.' Mr. Geldard, representing the British Chambers of Commerce, said frankly in his evidence that small businesses were short of information about the transition. On material prepared by the European Commission, he said, '...it is not information, it is a selling document. It has no practical information in it at all.' When pressed, his verdict became 'it is propaganda'.

In view of the problems of dual pricing and parallel circulation of legal tenders, many people believe that Phase B of Stage Three should be as short as possible. This conclusion was drawn by the Maas Committee, after it had conducted a survey of the relevant trade associations and took hearings on the subject in early 1995. However, there is considerable nervousness – particularly in the banking industry – about the feasibility of a short Phase B, unless the whole operation is expertly and meticulously planned in advance. Joint evidence from the British Bankers' Association and the Association for Payment Clearing Systems – also to the Treasury Committee of the House of Commons – agreed that, 'The proposed one-year duration of Phase A is too short to prepare and implement changes for the start of Phase B.' In a fascinating note, the former secretary to the UK's Committee of Inquiry on decimalization remarked that a critical path had to be mapped out for the mechanical task of manufacturing, distributing and storing all the banknotes and coins needed. In his words, 'It seems obvious that, even if all the specifications and designs were agreed now (and plainly they are not), then it would be well after the year 2000 before [the common designation of all prices across the EU in euro] could be attained.'

The banks may be particularly worried that, in Phase B, their own operations, including operations with the European Central Bank, are to be wholly in euro – whereas their customers remain free to use the national currencies. One aspect of this dichotomy needs to be highlighted. People leave money in banks because they believe that deposits can always, after the due period of notice, be converted into legal-tender notes. In order to meet this obligation, banks keep part of their assets in the form of 'vault cash' (i.e., notes in banks' tills) and another part in balances at the central bank. If their vault cash runs low, they convert some of their central bank balances into notes and withdraw them from the central bank. In that way, they have enough cash to meet their customers' requirements. But – if the Commission and EMI documents mean what they say – this standard set of operations will no longer be possible. (The operations have sometimes been characterized in the UK as the Bank of England acting as 'lender of first resort'.) If banks can deal with the ECB and national central banks only in euro, they presumably cannot convert their central bank balances into national notes. And, if they cannot extract national notes from the central bank, how can they meet customers' cash withdrawals?

In general, dual pricing and the concurrent circulation of distinct legal-tender notes are impractical. Economic agents converge on one money precisely because money confers its great benefits (in terms of cutting transactions costs) if it takes the form of only one unit of account. Most of the evidence submitted to official inquiries across Europe has suggested that – when the new currency was introduced – there would be rapid convergence towards it. If so, the intended three-year length of Phase B would become unnecessary.

However, there is an alternative view that, in Phase B, very few people and companies would adopt the new currency. The Commission and EMI policy documents are not entirely clear about the status of the euro in Phase B. Euro bank notes would not be legal tender, since no euro-denominated notes would be in circulation, whereas the national currencies would retain legal-tender status. The standard formula is that national currencies would nevertheless merely be 'expressions of the euro', which would be Europe's currency. Ostensibly, the everyday problems that arise from the separate identities of the national currencies would become a thing of the past. But would that really be so?

Since national-currency-denominated notes are only 'expressions of the euro', the question arises of their validity during Phase B for payment (i.e., as media of exchange) outside their country of issue. To be more specific, during the year 2000, would franc-denominated notes issued by the Banque de France be legal tender in Germany and would Deutschemark-denominated notes issued by the Bundesbank be legal tender in France? The answer to these questions seems to be 'no' (an official answer would be welcome!), but then it would be necessary to convert from francs into Deutschemarks when moving from France into Germany with the intention of making purchases in Germany (and vice versa when moving from Germany into France). Of course, there would be conversion costs in exchanging the currencies. So, francs and Deutschemarks would retain their separate identities and would not be mere 'expressions of the euro'.

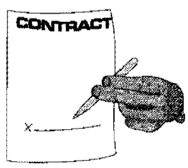
A further question is the exact legal status of payments in euro during Phase B. It would continue to be illegal to refuse payments in national-currency notes in their countries of issue. But—as there are no legal-tender notes denominated in euro—would it be illegal to refuse cheque payments and other transfers in euro? Since, in most countries, any agent can refuse cheque payments and other transfers—even when denominated in the national currency—there would presumably be nothing illegal in refusing cheque payments and other transfers denominated in euros. In such circumstances, there would surely be a marked reluctance to hold euro deposits. However, if there were such reluctance, why should any significant transactions be in euro? The Green Paper talks hopefully of 'the immediate creation of a critical mass of activities in Ecu' from the outset of Phase B, with the usage of the euro trickling down smoothly from central bank operations, to wholesale money markets, to banking, to financial markets, and finally, to retail transactions. While this trickling-down is supposed to be voluntary, it is nowhere explained why, during Phase B, it should be rational for any individual company or institution to operate in euro rather than the national currencies. (Phase C—in which the euro is legal tender—would be a quite different matter.)

The claim that, during Phase B, the usage of euro will increase steadily, by the process of trickling-down, is pure conjecture. No one can say in advance whether this claim would be right or wrong. Because the adoption of the euro is voluntary, it is almost impossible to predict the speed at which the new currency would spread or, indeed, whether it would spread at all. The mere announcement of a new, allegedly superior unit of account is not enough to ensure that agents will want to use it, as has been clearly demonstrated by the almost 18 years of the Ecu's own existence. But, if hardly any agents start to use the euro in Phase B, the demand to hold it will be very limited. The small demand to hold euro implies that its supply must be also restricted if it is to keep its value, putting clear limits on the growth of the euro-denominated part of the banking system. This point—which is very important—will be picked up in the later discussion. (It has to be conceded to the EMU-optimists that some companies, such as Siemens and Phillips, have said that they intend to do all their internal accounting, including invoicing, in euro from 1 January 1999. But managers in these companies seem to be very uncertain about how they will proceed if their suppliers and customers continue to work in national currencies.)

The analysis in the last paragraphs contains a key message: EMU would be feasible—or, anyhow, closer to feasibility—if Phase B and Phase C were collapsed into a single Phase, ideally a very short one. That view is almost certainly correct. But the European Commission and the EMI, taking a cue from their political masters, have rejected the 'Big Bang' approach. They intend that, in Phase B, the euro will be a unit of account, but not that it should be a legal-tender liability of a particular institution with the value to qualify it as a medium of exchange. But—if a so-called 'money' is not legal tender and therefore has no value—it would be irrational for agents to use it as a unit of account in preference to existing national currencies. In effect, the official description of the euro's monetary status in Phase B (that the national currencies 'are expressions of the euro') is a contradiction in terms. The root of the error—as in other areas of this subject—is confusion between the unit-of-account and medium-of-exchange functions of money.

The three-year timetable envisaged for Phase B and the six-month timetable foreseen for Phase C is too long. They would, if ever attempted, lead to logistical difficulties quite as severe as those that the Commission fears would come from a 'Big Bang'.

Standard value in contracts: the impact of EMU



So, the strains of dual pricing and parallel currency circulation, and more generally of trying to run two units of account in harness, argue for a short—but very well-planned—period of change-over from the national currencies to the new single currency. Unhappily, the effect of a short change-over on the second function of money—to provide a standard for deferred payments— would be harmful. If the governments of Europe want to give their citizens money that is reliable and trustworthy in framing contracts, the change-over must last several years. Indeed, it may be that the dominant reason for the rather protracted duration of Phases B and C is that, when certain contractual problems are explained to them, these governments shrink from the consequences of a short change-over.

If all price terms related to a single point in time, money would not need to be used as a standard of deferred payment. However, in practice, the price terms in many contracts relate to extended periods of time. These terms are usually expressed as a rate of interest, although fixed nominal sums and indexation clauses are also common. (For example, insurance policies—which may last 30 years or more—often include obligations to pay claims to policy-holders up to a certain sum of money, expressed in nominal terms or in nominal terms adjusted by a price index.) These rates of interest, fixed nominal sums and indexation clauses are specific to a particular currency. As the substitution of one currency by another disrupts contracts with such terms, it impairs money's effectiveness as a standard of deferred payment. The extent of the disruption depends partly on the length of the contracts and partly on the extent to which the new currency differs from the old one. The disruption – in sharp contrast to the simple redenomination of current prices – can have major distributive effects on the contractual parties. (Examples of the affected contractual parties are insurance companies and their policy-holders, bondholders and the issuers of bonds, and the borrowers, depositors and shareholders of banks and housing finance intermediaries.)

Here lies the rationale for certain well-known features of the Maastricht Treaty. First, the disruption of contracts is most manageable if the change-over from the national currencies to the single currency takes several years. (During the change-over – i.e., in Phases B and C of Stage Three when both currencies are supposedly 'in being' – existing contracts can be run off in the old currency and painlessly replaced by contracts in the new currency.) Secondly, because a large gap in interest rates between the currencies due to be unified is likely to cause greater redistributive upheaval than a small gap, the Maastricht Treaty says that currencies can qualify only if the interest rate differentials between them are sustained at a low level over a period of some years.

The Maastricht Treaty's insistence on narrow interest rate differentials as a condition for participation is sensible. Indeed, the problem of contract discontinuity is now well known, and has been exercising many people. Banks are particularly concerned. As noted by an Italian banker, 'There is an important trade-off between ensuring the sanctity of contract and limiting (by some conventional solution) the extent of redistribution from debtors to creditors. The banking system is, of course, not extraneous to that difficulty, as it also has some portions of its balance sheet represented by medium- or long-term assets or liabilities.'[1]

However, to say that the problem of contract discontinuity is now well-known is not to accept that Europe's policy-makers know what to do about it. It is not sufficient to propose – as in the Commission's Green Paper and the communication from the Madrid summit – that the terms in existing contracts are to be redenominated, regardless of their distributive consequences. (So, if 'the rate of interest' in a 20-year fixed-rate franc contract maturing in 2005 was 9 per cent, it will remain 9 per cent in a 20-year fixed rate contract with interest and servicing payments in francs or euros during Phases B and C, and eventual repayment in euros.) The

[1] *Mario Sarcinelli, 'Bets off for '99', The Banker, March 1996, p.15*

official recommendation, as it currently stands, is inadequate in at least two ways.

First, the reference interest rates and price indices in contracts relate to particular currencies and jurisdictions. (For example, in the UK interest rates can be expressed in terms of base rate, interbank rate, a finance house rate or whatever, whereas other countries have different types of interest rate. Further, the UK has a national retail price index, prepared every month with certain characteristics in terms of coverage, methods of compilation, and so on. Germany has regional consumer price indices. as well as a national index—again with each having its own characteristics. Ireland, meanwhile, calculates its consumer price index only once a quarter. In fact, every country has indices which are peculiar to itself.) The reference rates and indices may sometimes have a natural successor in the brave new world of EMU, but sometimes they will not. In all cases the choice of the successor rates and indices will have redistributive consequences. The contractual upheaval involved will undoubtedly lead to legal disputes and extra costs for business.

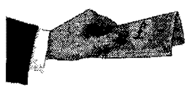
In one particular case—the market in interest rate and currency swaps—the impact of contract discontinuity could be devastating. The decisions to embark on certain types of swaps product often depend on the appearance of extremely small interest rate differentials, which may be technical in nature. Where swaps in the candidate EU currencies mature after 1 January 1999 or 1 January 2002, severe redistributional consequences are likely whatever happens, while the choice of the successor references rates is of vital importance to the parties involved. In its evidence to the Treasury Committee of the House of Commons, Barclays Bank noted that 'considerable legal uncertainty faces the financial community but there appears to be little indication of what, if anything, the authorities contemplate doing about it.'

Secondly, it cannot be a matter of indifference to the parties in financial contracts whether, during Phases B and C, they make or receive payments in the national currencies or euros. In Phase B, euro notes are not to be legal tender, and so the euro will not be much used (possibly not used at all) in retail transactions. Many customers of financial institutions (for example, people drawing on their bank deposits or receiving redemption money on the maturity of a life insurance policy) will be most unhappy if they receive euros and then are forced, at significant cost in terms of bank charges, to convert back into national currencies. The rigid, allegedly 'irrevocable', locking of exchange rates in Phase B will not be much comfort to these people, if they are constantly having to incur heavy commission and bank charges on small conversions between euros and the national currencies.

None of the discussion in this section should be taken to deny the theoretical feasibility of EMU. It is, of course, possible for Europe's leaders to pass laws that ride roughshod over the original intentions of contractual parties. (They appear to have decided on this course already.) It is also possible – although it would be very expensive – for dozens of committees to be formed to determine the correct successor rates of interest, price indices and so on, and for statistical agencies to be charged with the task of preparing the necessary data. (In fact, the EMI's attempts to harmonize the compilation of banking data across Europe are well advanced, although causing considerable inconvenience to national central banks and banking systems.) Finally, it is imaginable that Europe's governments might find a way of compensating their citizens, bankers and retailers for the cost of the millions of small currency conversions that would be needed in Phases B and C. It is imaginable, but surely very unlikely.

This discussion shows that, even in Phase B – when exchange rates are (in principle) irrevocably fixed, people would continue to worry about whether they took or made payments in euros instead of the national currencies. Costs of converting between them would remain. Further, and more damagingly, the demand to hold euros would depend on the relative ease of transacting in euros and national currencies. (Traders in certain markets might post wider differences between buying and selling prices when these prices are expressed in euros rather than national currencies.) It has become timely to consider how the problems of transition might affect the usage of the euro as a medium of exchange.

Medium of exchange: the impact of EMU



Earlier in this chapter, a strong distinction was drawn between money as a unit of account and money as a medium of exchange. Contracts and prices can be stated in terms of a particular unit of account, or 'money', but a unit of account has no value in itself. On the other hand, when payments are made in 'money' as a medium of exchange, the money involved must have value. In modern circumstances, it has value because it is a claim on the central bank, either directly in the form of notes or indirectly via a bank deposit. In other words, money acts as a medium of exchange only if it is a liability of the banking system. The ultimate basis of the value of the central bank's note liabilities is their legal-tender status. (Coins – which have become trivial – are a minor exception.)

Units of account can be determined by administrative fiat (governments can add or subtract zeros to all prices, without changing any relative value);

the real value of money as a medium of exchange, by contrast, depends on the demand for it relative to the supply. The real value of money as a medium of exchange can be influenced by policies to control its supply, but—unless the state is to provide a formal guarantee of some sort—it cannot be determined by administrative fiat.

A defining feature of Phase B of Stage Three is that exchange rates are to be irrevocably fixed, so that—in the words of the Green Paper—'The Ecu ceases to be defined as a basket of currencies and becomes a currency in its own right, for which the national currencies are perfect substitutes, i.e., different denominations of the single currency'. As a result, '[o]fficial foreign exchange markets for the participating national currencies will disappear completely' (p. 15). The phrase 'a currency in its own right' appears decisive. But it is, in fact, hopelessly ambiguous and uncertain. Crucially, it begs the very fundamental question of whether, in Phase B, the Ecu/euro is to be merely a unit of account or is to become a fully-fledged medium of exchange with value in transactions. However, there is one consideration—already much emphasized in this analysis—which makes it most unlikely that the euro would become a fully-fledged medium of exchange during Phase B. This is that bank notes denominated in it are not designated as legal tender until Phase C.

Advocates of EMU may dismiss the objection as irrelevant, because everyone would know that the euro equivalent of their national currencies would be legal tender on 1 January 2002—but people would still have to use money between 1 January 1999 and 1 January 2002! In Phase B, euro-denominated deposits and transactions would have to compete with continuing deposits and transactions denominated in national currencies, even though the euro versions would suffer from the disadvantages of unfamiliarity, the inconvenience of conversion costs in small transactions and the extra computational burden. Whatever officialdom may say, people would still fear that the central rate between the euro and their national currencies might change. It was suggested earlier in this chapter that the demand to hold euros might be quite small in Phase B. If the ECB were to try to expand euro usage by issuing many euro-denominated liabilities, the value of such liabilities would fall relative to national currency notes.

As the euro could act as a medium of exchange only if it were a liability of banking systems, the questions arise of whether banks would also convert their assets into euros and how this process of conversion would be conducted. Even for the asset counterpart to the notes issued by the ECB, such questions are awkward. The official documents from the Commission and the EMI say that public debt should be redenominated into euro 'from the start of Phase B to the extent that it is technically possible'. So, public debt held by central banks should be straightforward to handle. But what about all the other assets held by central banks, including commercial bills and loans to banks? The problems become much greater for commercial banks, where the bulk of the assets are loans to the private sector. There is a clear risk that, because of their customers' actions, a large net currency exposure (either short or long of the national currency against the euro) would emerge.

The Green Paper makes a blithe conjecture about the disappearance of 'official foreign exchange markets' in Phase B. However, the national currencies would still be very much in existence – as media of exchange, which are liabilities of banking systems. (The documents say that the euro comes into being 'in its own right', not that the Deutschemark, franc and so on cease to exist in their own right.) Just as banks could become exposed to large net currency exposure between the euro and national currencies, so they could become exposed to large net currency exposures between the Deutschemark and the franc, the French franc and the Belgian franc, and so on. In contrast to the present situation, wherein a speculator can lose money because the rate can move against him (or her), in Phase B he or she could lose nothing except transactions costs. Far from abolishing speculative uncertainties, the scope for taking speculative positions would expand almost without limit.

The authors of the Green Paper might reply that these fears are groundless because eventual conversion into the euro at the fixed exchange rates is certain. But it is not certain. To repeat, politicians and bureaucrats can fix units of account, but they cannot – by sheer announcement – fix the relative values of distinct media of exchange. (And, of course, in Phase B the various national currencies would remain distinct media of exchange!) If governments were 100 per cent confident that, at the start of Phase C on 1 January 2002, the conversion rates of banks' assets and liabilities would be exactly as agreed at some date in 1998, they could give a guarantee to the banks to compensate them for any devaluations or revaluations that actually occurred. However – despite being pressed by London Investment Banking Association on the need for such a guarantee – the relevant authorities have refused to give one. (Information on this comes to the author from Mr. Graham Bishop – who does not, however, agree with the conclusions drawn here or elsewhere in this chapter. Note that the granting of a government guarantee to compensate for the foreign exchange losses would be much simpler to arrange if there were only one government instead of several.)

The Green Paper gives the game away by stating on p. 17 that, in Phase C, 'The old national currencies may be exchanged free of charge at the national central banks during the statutory [change-over] period laid down in each country.' A clear implication is that the same option—of free-of-charge conversion at the central bank—is not to be available in Phase B. However, if this is so, how can the national currencies and the euro be the 'perfect substitutes' envisaged on p. 15? And how are the whole panoply of monetary policy actions to be effective in Phase B, as the Green Paper pretends on p. 15 and p. 16, if banks are to be charged conversion costs whenever they try to convert national notes into euro notes? How can open market operations work, and lender-of-last-resort services be provided, if all conversion transactions between banks and central banks are subject to a charge? The very notion of 'monetary policy' becomes unmanageable.

The various points made in the last few paragraphs—about the costs of conversions between the national currencies and the euro, and the resulting lack of equivalence between the currencies and the euro—could be overcome if it were illegal during Phase B to carry out any exchange between the national currencies and the euro, except at the officially-determined 'irrevocably-fixed' exchange rates, precise to six decimal places. But that is preposterous. To be effective, not only would all exchanges between the existing and continuing national currency notes have to be at the fixed rate, precise to six decimal places (!), but so also would all transactions where an exchange of currencies was implicit. The computational burden would be absurdly high.

The argument in the last few paragraphs is profoundly damaging to the whole project of EMU. An analogy with building a house may be evocative, if a little overdrawn. The earlier analysis of the function of money as a unit of account suggested that the architects of EMU were proposing, during the construction Phase, to use bricks of different shapes and sizes (dual pricing, parallel circulation of legal tenders). The analysis of the function of money as a standard of deferred payment showed that they were designing a house without a roof (i.e., without the necessary legal and institutional framework for the clear redenomination of contracts). But the analysis of the function of money as a medium of exchange is even more destructive. The key planning documents are so incoherent about concepts and definitions that the house is being built on a verbal bog. In effect, such is their confusion between the roles of money as a unit of account and a medium of exchange that the authors of the Commission's Green Paper and the EMI Report do not seem really to understand what the term 'money' means.

Further practical problems—assuming that EMU is, somehow, completed

The point of this chapter is not to assert that the EU can never have a single currency. German monetary unification demonstrated both that currency unification is possible and how it ought to be done. It happened on a single day, 1 July 1990. (Or, perhaps, two days, i.e., 30 June and 1 July.) Thereafter, the ostmark was no longer legal tender anywhere in Germany; all the key monetary policy levers were centralized in the Bundesbank and all the essential fiscal powers were concentrated in the hands of the government of the former West Germany. The West German government – via the social security system, the Bundesbank and other agencies – had to spend large amounts of money on the process, and continues to do so. A large majority of the citizens of East Germany were eager for full political union with West Germany. Even so, their acceptance of currency unification was secured by a bribe – conversion of their money balances into Deutschemarks at a favourable exchange rate. The result was a huge cost to the taxpayers of West Germany. In effect, German monetary unification took place via the 'Big Bang' route, with the costs underwritten by a single government. This single government amalgamated the powers of two previously separate governments.

The message from this example – and, in fact, from previous examples of currency unification – is simple. The EU can have a single currency if:

1. it is prepared to make the change-over from a multiplicity of national legal tenders to a single European-wide legal tender on a single day, with (nearly) all prices and contracts redenominated immediately, and all redenominations complete within a few weeks;
2. all monetary policy levers are concentrated in the central bank, which is the sole issuer of the new legal tender;
3. the nations of the EU surrender ultimate control of taxation and government expenditure to a new central government which has fiscal sovereignty over all of them, and
4. this new central government has the power and the resources – with expenditure probably running into many billions of Ecus/euros – to compensate the private sector for losses from contractual upheaval and the costs in carrying out the currency changeover.

The Commission's Green Paper is wrong to claim that the Big Bang method would encounter 'insurmountable obstacles'. On the contrary, the only way to overcome the technical difficulties in currency unification is to pursue the Big Bang option, with all that means in terms of the formation of a federal European superstate. Many people may disagree with this verdict. They may insist that – despite the impracticalities identified in the analysis – a single currency will nevertheless emerge by the middle of 2002. Assume, charitably, that they are right. With the problems of transition overcome, would EMU work?

As noted earlier, there is no example in history of significant sovereign nation states sharing a single currency. Why? The answer may lie in the risk of serious 'free rider' problems. In essence, when there is one government, one state-sponsored central bank and one money, it is obvious where the responsibility for inflation lies. In the final analysis, it rests with the government. (Even if central bank incompetence has been the immediate cause of inflation, the central bank's behaviour is heavily conditioned by its relationship with government, which is its ultimate master.) By contrast, when there are several governments, a system of national central banks subordinate to a single European central bank and one money, who is to blame for inflation? The answer is 'not any one of the governments individually, but either the central bank or the central bank plus the governments taken collectively'. No single government remains under the same pressure to behave in a financially responsible manner, as at present.

Worse, they have every incentive to misbehave, in two ways. First, the larger the budget deficit, the higher the proportion of Europe's resources they can capture for the benefit of their own citizens without paying for it by taxation – but the larger the budget deficit collectively for all governments, the higher the risk of inflation. As is well known, the Maastricht Treaty and the Stability Pact have correctly tried to anticipate this danger by spelling out limits on budget deficits and the size of the total public debt. However, it remains unclear whether these limits would work in practice, as their effect can be evaded by definitional tricks of one kind or another. Moreover, the limits contained in the Maastricht Treaty and the Stability Pact clearly erode national fiscal sovereignty.

Secondly, the higher the proportion of short-term monetary financing of the budget deficit to non-monetary financing, the cheaper the cost of debt service to governments. (The shape of the yield curve, which traditionally slopes upward to the right, explains the relative cheapness of short-term financing.) But, again, the greater the amount of monetary financing by all governments collectively, the higher the risk of inflation.

The Maastricht Treaty recognizes this by prohibiting overdraft finance for governments at the ECB.

This second 'free rider' problem has not been much discussed in the literature of currency unification. It may be very important. If Europe's governments all want to borrow at the short end (to save interest costs), monetary control would break down. The ECB must therefore have some means of managing the maturity profile of the various governments' debt. But that would infringe the governments' current prerogative to fix the maturity profile. Governments and the ECB would be at loggerheads. The most vivid illustration is provided by a wartime emergency. If the UK went to war, its government would probably want to borrow from the Bank of England. At present it can do so without any restriction. (Of course, inflation would follow.) However, under EMU, the government would have to seek the ECB's permission to borrow at the short end. Plainly, the government's ability to finance and fight a war would be undermined. The UK would suffer a drastic erosion of sovereignty.

In its inquiry in 1996, the Treasury Committee of the House of Commons sought only limited evidence on this aspect of the subject. Mr. Martin Wolf of the *Financial Times* suggested that a complicated process of negotiation and compromise between national governments and the ECB would be needed. As the details (of Treasury bill issuance, of central bank and commercial bank transactions in public debt in the secondary market, of debt management tactics and so on) would inevitably be very political, Europe's finance ministers and central bankers would be foolish to postpone them until late in Phase A. Mr. Wolf is quite right to have characterized the ECB as 'a constitutional monstrosity', since it is not clear whether ultimate power over a range of monetary policy matters would rest with its officials or with democratically-elected governments. (A similar problem arises with foreign exchange intervention. Foreign exchange reserves are owned by governments, but decisions to intervene have monetary effects.)

Of course, the free rider problems would disappear if there were only one central government and one central bank. The tensions under EMU arise because several purportedly-sovereign governments attempt to share a single currency.

EMU, as envisaged in the Maastricht Treaty, will not work

The analysis in this chapter does not say that EMU is impossible. It claims rather that EMU is impractical to the point of impossibility if, one, it is attempted in the manner proposed by the Maastricht Treaty and, two, it is introduced before—rather in conjunction with—political union. In this context, political union must include a thorough-going centralization of fiscal and debt management powers.

There is no escape from the interdependence of political and monetary union. German politicians and Bundesbank officials have correctly emphasized that the two ideas are inseparable. Indeed, for many of Europe's leaders, the great merit of EMU is that it is a building-block—perhaps the most important building-block—in the construction of political union. In view of the proliferation of official statements associating political and monetary union, Mr. Kenneth Clarke's view that 'I do not believe EMU is any threat to the continued existence of the nation state' is puzzling.

At any rate, the EU will fail to create a single currency unless it simultaneously establishes a political union. Although the Maastricht Treaty is the most ambitious attempt yet to press for both monetary and political union in Europe, it does not go far enough in the centralization of fiscal powers to make currency unification practical. From a broader perspective, the coming collapse of the EMU process matters little. Life across the EU will go much as before, with governments instead concentrating on important and tractable policy issues. But—because of the absurd over-investment of political credibility in the EMU project—the failure to introduce the single currency will be widely regarded as the worst setback to European integration since the signing of the Treaty of Rome in 1957.