GERRARD & NATIONAL

Monthly Economic Review

No. 86, August 1996

Contents

GERRARD

Gerrard & National Holdings PLC

Gerrard & National Limited
Cannon Bridge,
25 Dowgate Hill,
London, EC4R 2GN
Tel: 0171 337 2800
Fax: 0171 337 2801

Lombard Street Research Ltd.
Cannon Bridge,
25 Dowgate Hill,
London, EC4R 2GN
Tel: 0171 337 2975
Fax: 0171 337 2999
e-mail: lsr@lombard.demon.co.uk
www.cbot.com/lrwelcom.htm

GNI Limited
Cannon Bridge,
25 Dowgate Hill,
London EC4R 2GN
Tel: 0171-337 3500
Tlx: 884862
Fax: 0171-337 3501

Gerrard Vivian Gray Limited
Burne House,
88 High Holborn,
London WC1V 6LS
Tel: 0171-831 8883
Tlx: 887080
Fax: 0171-831 9938
Stx: 74377

Signs of strengthening economic activity

Next major move in interest rates is up

Manufacturing getting better

The gloom is lifting from the manufacturing sector of the economy. Manufacturing provides less than a quarter of gross domestic product, but it is important to the business cycle because its output fluctuates much more than services output. The stagnation in manufacturing output since the spring of 1995 has been a major element in the wider economic slowdown. It is now clear that manufacturing is returning to growth. Indeed, there is a chance that growth will run at an above-trend rate over the next few quarters.

The key item of evidence is the latest survey from the Confederation of British Industry. It reports a positive balance of 22% of companies with plans to increase output over the next four months, higher than the 9% positive balance which has been the average since this question was first asked in 1974. There has in fact been a reasonable correlation between the CBI expected output balance and the actual growth of manufacturing production in the last 22 years. If the same relationship holds as in the past, a balance slightly above 20% points to an annualised rate of growth in manufacturing output of about 4%. As a mass of survey and orders evidence is already indicating strong demand in the services sector, particularly among retailers, the CBI results are consistent with a more general return to above-trend growth in late 1996 and early 1997.

A few quarters of above-trend growth ahead,

The last few years have already seen a welcome decline in unemployment. The unemployment total has fallen from a peak of 2,971,700 (10.6% of the workforce) in December 1993 to 2,152,000 (7.7% of the workforce) in June this year. A period of above- trend growth from mid-1996 to mid-1997 might bring the number down even further to, say, 1.8m. - 1.9m.. This would not be much different from the levels of 1.6m. and 1.7m. recorded in 1988 and 1989 when the economy was undoubtedly over-heating. So at what point will inflation start to increase? There is no immediate problem. The last CBI survey even had a negative 1% balance on price-raising intentions over the next four months, while pay settlements remain subdued. Further, despite the steady and now quite substantial fall in unemployment, companies are not reporting serious labour shortages. The balance of companies in the CBI survey where skilled labour shortages are a constraint on output is currently 11%, comfortably beneath the 15% - 20% balance which has been the typical answer to this question since 1960. But - if the economy is still growing at an above-trend rate in late 1997 - inflation worries for 1998 and 1999 will be fully justified. The next big move in interest rates will be upwards.

with inflation worries in 1998 and 1999

Professor Tim Congdon

31st July, 1996

Summary of paper on

'The coming collapse of EMU'

Purpose of the paper

Under the terms of the Maastricht Treaty the EU (or, at any rate, a sub-set of its members) is supposed to have a single currency from 1st January 2002. The purpose of this paper is to consider whether the introduction of a single European currency, along the lines described in the treaty, is practical.

Main points

* **Money serves three functions, as a unit of account, a standard of deferred payment and a medium of exchange.**

* **The definition of a unit of account is not equivalent to the creation of a medium of exchange. The nominal value of a unit of account can be fixed by government order; by contrast, the real value of a medium of exchange depends on supply and demand.**

* **The central fallacy in the Maastricht process is to believe that the real value of a medium of exchange (or the relative values of different media of exchange) can be fixed by government order. This fallacy stems from a confusion between the unit-of- account and medium-of-exchange functions of money.**

* **The fallacy is particularly serious in the European Commission's proposals for Phase B. (See pp. 11-13.) Among the Commission's plans are i. a strange division between banks' retail transactions (in national currency notes) and monetary policy operations (in Euros), and ii. the supposed disappearance of foreign exchange transactions between Europe's currencies, even though the currencies would still be separate. These plans are utterly impractical.**

* **The unit-of-account function is best reserved by a very rapid change-over to the new currency (see p. 7); the standard-of-deferred payment function is best served by an extended period of transition (see p. 9).**

* **Monetary union is feasible only if accompanied by political union (see pp. 13-15).**

This paper was written by Professor Tim Congdon. It is a shortened version of a paper submitted to the Treasury Committee of the House of Commons, to which Professor Congdon is a specialist adviser.

The coming collapse of EMU

The Maastricht Treaty is impractical to the point of impossibility

Failure of the single currency project is already inevitable

The argument of this paper is controversial: it is that neither the EU nor a subset of its members will have a single currency on 1st January 1999, 1st January 2002, 1st 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.

Redenomination of prices does not define EMU, which is in fact highly political

For most of these leaders the unification of currencies consists, primarily, in the redenomination of units. They think that currency unification is similar to decimalisation 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 recognised that currency unification is impractical - indeed, impractical to the point of impossibility - without the prior or simultaneous establishment of political union.

Fulfilment of convergence criteria not sufficient for EMU

Many people involved in EMU have focussed 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. 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.

I. The three functions of money,

as unit of account, standard of deferred payments and medium of exchange

As is well-known from the textbooks, money has 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.

Currency can serve as a medium of exchange only if it has value

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 conferral 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.

State's power to fix nominal value of the legal tender does *not* give it power to fix the real value

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.

Confusion between money as unit of account and medium of exchange leads to impractical Phase B

Much of the conceptual trouble in European currency unification stems from this confusion. It will be argued later in the paper (on pp.6-7 and pp. 11-13) 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.

but this confusion is only one of many

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 paper 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.

II. Money as a unit of account

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 reduces transaction costs

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.

Unit-of-account function best served if there is very rapid changeover to new currency

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* 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, Phase A appears to be the run-up to the start of Phase B on 1st January 1999, phase B is to have a maximum length of three years (i.e., until 31st December 2001), and phase C is to start (at the latest) on 1st January 2002 and to be completed quite quickly thereafter. (Phase C is to last six months, according to the EMI *Report* (p. 3), but only "a few weeks", according to the *Green Paper* (p. 17).)

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 candidate 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.

But there is to be a long period of dual pricing and accounting, with heavy costs

The increase in transaction costs during this period will depend partly on its duration. Retailers and banks are only now beginning to consider this question, and to recognize a whole host of new and awkward problems. Mr. Geldard, representing the British Chambers of Commerce, said frankly in his evidence to the Treasury Committee 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 agreed that, "The proposed one-year duration of Phase A is too short to prepare and implement changes for the start of Phase B."

Bank's retail operations, which require vault cash in national currency, to be divorced from monetary policy operations in Euro

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 be converted back 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. 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 the Treasury Committee has suggested that - once the new currency were introduced - there would be rapid convergence on the new currency. If so, the intended three-year length of Phase B would become unnecessary.

Possible that very few people would adopt new currency in Phase B

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 clear that in Phase B the Euro would not be legal tender, whereas the national currencies would retain legal-tender status. In other words, it would be illegal to refuse payments in the national currencies, but not in the Euro. In such circumstances there would surely be a marked reluctance to hold Euro notes and deposits. But, if there were such a 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.

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. (See pp. 11-13.)

Irrational to prefer a theoretical currency to the legal-tender currency

The analysis in the last paragraphs contains a key message, that 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.*

III. Money as a standard of deferred payment

Money provides standard for contracts

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 a money (or a sequence of monies) that is (are) reliable and trustworthy in framing contracts, the change-over must last several years.

An extended period of transition eases the problem of contract discontinuity,

If all price terms related to a single point in time, money would not need to be used as a standard of deferred payment. But in practice the price terms in many contracts relate to extended periods of time. These terms are usually expressed as a rate of interest, but fixed nominal sums and indexation clauses are also common. 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 (e.g., insurance companies and their policy-holders; bondholders and the issuers of bonds; banks and housing finance intermediaries, and their borrowers and depositors).

Contrasts between central bank balance sheets 1.

Germany and France are regarded as core members of EMU. The redenomination of central bank balance sheets into Euro is planned in Phase B. As the tables show, their balance sheet structures are very different.

1. Germany: monetary authorities' balance sheet (i.e., the Bundesbank, mostly)

Assets	b. of DM	% of GDP	*Liabilities*	b. of DM	% of GDP
Foreign exchange	132.9	4.3	Reserve money	314.0	10.1
Claims on central gov.	24.7	0.8	Foreign liabilities	16.4	0.5
			Central gov. deposits	0.1	0.0
Claims on banks	213.1	6.8	Other items (net)	40.2	1.3
Total	370.7	11.9		370.7	11.9

Note: Under the legislation governing it, the Bundesbank cannot hold direct claims on the German government. The "Claims on central government" shown here probably relate to government securities held in the course of repurchase operations with German banks.

2. France: monetary authorities' balance sheet (i.e., the Banque de France, mostly)

Assets	b. of francs	% of GDP	*Liabilities*	b. of francs	% of GDP
Foreign exchange	346	4.5	Reserve money	309	4.0
Claims on central gov.	59	0.8	Foreign liabilities	57	0.7
Claims on private sector	6	0.1	Central gov. deposits	58	0.8
Claims on banks	147	1.9	Capital accounts	177	2.3
			Other items (net)	-45	-0.6
Total	588	7.3		558	7.3

Source: *International Financial Statistics*, June 1996

Figures in national currencies relate to end-1995; percentages are end-1995 balance-sheet figures divided by calendar-year 1995 GDP.

Note that reserve money held outside banking system was 237.5b. DM (7.6% of GDP) in Germany and 309b. francs (3.4% of GDP) in France.

In Phase B the national central banks will - theoretically - start to operate in Euro. One problem is that the final decisions have yet to be taken about the composition of the ECB's (or the ESCB's) assets. This could be contentious, since the balance sheet totals, expressed as a % of GDP, vary hugely between countries.

which argues for a long Phase B (or Phase B and C combined)

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.

Maastricht Treaty reflects concern over treaty discontinuity,

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." (Mario Sarcinelli 'Bets off for '99', *The Banker*, March 1996, p. 15)

but simple redenomination of contracts leaves answers unresolved, as

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

i. new reference rates and price indices have to be prepared,

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, inter-bank rate, a finance house rate or whatever, whereas other countries have different types of interest rate.) 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.

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 the Euro is not to be legal tender and so it will not be much used (possibly not used at all) in retail transactions.

Contrasts between central bank balance sheets 2.

The UK and Italy are unlikely to join EMU (whatever EMU may be) in 1999. Their central bank balance sheets diverge even more markedly than Germany's and France's.

1. The UK: monetary authorities' balance sheet (i.e., the Bank of England, mostly)

Assets	b. of £	% of GDP	*Liabilities*	b. of £	% of GDP
Foreign exchange	31.89	4.6	Reserve money	28.16	4.0
Claims on central government	24.41	3.5	Foreign liabilities	30.72	4.4
			Other items (net)	-2.58	-0.4
Total	56.30	8.0		56.30	8.0

Note: The UK holds its foreign exchange reserve in an "Exchange Equalisation Account", which is *not* part of the Bank of England. The figures in this table - which relate to the IMF's category, "monetary authorities" - do not correspond to the Bank's own published balance sheet.

Source: *International Financial Statistics*, June 1996

2. Italy: the Banca d'Italia's balance sheet

Assets	b. of lire	% of GDP	*Liabilities*	b. of lire	% of GDP
Foreign exchange	102,454	5.8	Reserve money	159,184	9.0
Claims on central government	232,482	13.1	External liabilities	26,502	1.5
Claims on banks and other agents	23,942	1.4	Central government deposit	75,589	4.3
			Other liabilities	97,603	5.5
Total	358,878	20.3		358,878	20.3

Source: Banca d'Italia *Asemblea Generale Ordinaria* 31/5/96

Figures in national currencies relate to end-1995; percentages are end-1995; percentages are end-1995 balance-sheet figures divided by calendar-year 1995 GDP.

Note that reserve money held outside banking system was £20.99b. (3.0% of GDP) in the UK, while the note circulation included in the money supply in Italy was 98,281b. of lire (5.5% of GDP).

The note issue represents a tax (via "seigniorage) on the holders of the notes. Governments should therefore be concerned - if they want to unify their curencies - that the ratios of the note issue to GDP are similar in their countries. This is plainly not the case at present.

ii. Euro and national currencies are not equivalent in Phase B, as there would still be conversion costs

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.

Euro and the national currencies would still be distinct in Phase B

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.

IV. Money as a medium of exchange

Money has value only because it is a liability of banking system and can, ultimately, be converted into legal-tender notes

Earlier in this paper 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 accounts 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.

Phase B to see "irrevocable" fixing of exchange rates and Euro to become currency "in its own right"

A defining feature of Phase B 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 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. There is one consideration which makes it most unlikely to become a fully-fledged medium of exchange. This is that it is not elevated to legal- tender status until Phase C.

But, unless legal-tender notes in Euro are to be issued in Phase B, it cannot be a currency "in its own right"

Advocates of EMU may object that the objection is irrelevant, because everyone will know that the ECU equivalent of their national currencies will be legal tender on 1st January 2002. But people still have to use money between 1st January 1999 and 1st January 2002! In Phase B an ECU note issue (if it came into being) would have to compete with continuing issues of national currencies, even though it would suffer from the disadvantages of unfamiliarity, the inconvenience of conversion in small transactions and the extra computational burden. There would be conversion costs when national currencies are exchanged for Euro and vice versa. Whatever officialdom may say, people would still fear that the central rate between the Euro and their national currencies could change. It has been suggested earlier (see p.7) that the demand to hold Euros may be quite small in Phase B. If the ECB tried to expand Euro usage by printing too many notes, the value of these notes would fall relative to the national notes.

If they are issued, their value will depend on supply and demand, and cannot be fixed by administrative fiat

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.

Possibility of banks having large net currency exposures in Phase B

The *Green Paper* makes the blithe conjecture about the disappearance of "official foreign exchange markets" in Phase B. But 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 ECU comes into being "in its own right", not that the DM, 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 DM and the franc, the French franc and the Belgian franc, and so on.

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.* If governments were 100 per cent confident that at the start of Phase C on 1st 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. But - despite being pressed by the London Investment Banking Association on the need for such a guarantee - the relevant authorities have refused to give one. (Information to the author from Mr. Graham Bishop, who however does not agree with the conclusions drawn here or elsewhere in this paper. Note that the granting of a government guarantee to compensate for the foreign exchange losses would be much simpler to arrange is there were only one government instead of several.)

As there is no free conversion between Euros and national currencies in Phase B, Euros and national currencies not equivalent, and the notion of "monetary policy" in Euros is unmanageable

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. But, if 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 deposits and *vice versa*? 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.

V. Difficulties combining single central bank with several sovereign governments

In Germany monetary union accompanied by political union

The point of this paper 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, 1st July 1990. 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 deutschemark at a favourable exchange rate. The result was huge cost of 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.

Monetary union is possible,

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 change-over.

but only if accompanied by formation of federal European super-state

The Commission's *Green Paper* is wrong to claim that the big bang method would encounter "insurmountable difficulties". On the contrary, the only way to overcome the technical obstacles in currency unification is to pursue the big bang option, with all that means in terms of the formation of a federal European super-state. Of course, 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". Each of the governments - by itself - is no longer under the same pressure to behave in a financially responsible manner as at present.

Two "free rider" problems have to be controlled

i. Risk of budgetary excess, and

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, the higher is the risk of inflation. As is well-known, the Maastricht Treaty has correctly tried to anticipate this danger by spelling out limits on budget deficits and the size of the total public debt. But 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 Maastricht limits clearly erode national fiscal sovereignty.

ii. Risk of undue debt monetisation

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 is monetary financing, the higher is the risk of inflation. The Maastricht Treaty recognises this by prohibiting overdraft finance for governments at the ECB.

Problems can be countered, but only by drastic erosion of sovereignty

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 logger-heads. The most vivid illustration is provided by a wartime emergency. If the UK went to war, the 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.) But - in 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.

The Committee sought only limited evidence on this aspect of the subject. Mr. Martin Wolf 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 characterised 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.)

Problems disappear with single government

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

VI. EMU will not work

The analysis in this paper 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 than in conjunction with political union. In this context, political union must include a thorough-going centralisation of fiscal and debt management powers.

Some supporters of EMU say it implies political union, other deny this

The interdependence of political and monetary union cannot be escaped. 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.

Failure of EMU will be worst setback to European integration since 1957

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 on 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.