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Mr. Moore was a career UK civil servant from 1952 to 1986. After Cambridge University and military service he worked in several Government departments including the Post Office and the Treasury. From 1961-63 he was secretary of Lord Halsbury's Committee of Inquiry on Decimal Currency. In 1966 he worked in the Treasury on policy aspects of the changeover following the Government decision to decimalise and from 1967 to 1972 was secretary of the Decimal Currency Board. After the changeover he worked in the Civil Service Department and the Cabinet Office on central Civil Service general and human resource management matters, and from 1981 to 1986 was head of the Civil Service College (which provides management and further professional training for mid-career civil servants and for the fast-stream graduate entry). Since retirement from full-time work he has done several consultancy assignments for the Cabinet Office and other organizations. He is a member of the Civil Service Appeal Board and a local National Health Service Authority.
1. This paper describes the UK switch to a decimal currency, the organizational, legislative and other practical arrangements for it, and makes comparisons with the changeover to a single European currency.

The UK operation affected only one country and was on a much smaller scale than the European one. Changeover problems and the available solutions to them have altered since 1971 and the arrangements made in the UK reflected the administrative traditions of that country and the experience of other Commonwealth countries which had earlier adopted decimal systems. To describe what the UK did is not to suggest that the same pattern should be followed in the European Union.

2. Nevertheless, UK experience may be valuable because many of the issues will be similar. There will be a big physical task of producing and distributing bank notes and coins (likely to be the critical path in determining the length of a preparatory period and only able to begin when the names of currency units, the specifications and designs of the notes and coins have been agreed). Many machines which record money or are operated by coins, bank notes or cards will have to be converted.

There will be a massive computer reprogramming exercise. Complex legislative provisions will be needed. All organizations will have to modify their accountancy systems and their pricing of goods and services and to devote resources to staff training.

The conduct of cash transactions in shops will need careful analysis. Conversion tables will be needed in all countries and their use both in practice and in law will have to be resolved. Organizations large and small will have to be stimulated to investigate and resolve their own problems in a timely and cost-effective way.

There will have to be carefully judged publicity campaigns for large and small traders, the general public and schools. There will be concern by the public, consumer groups and their elected representatives about the possible effect on prices.
The key role of the banks will call for special attention. Close, open collaboration will be desirable amongst Ministries of Finance, any special bodies set up to co-ordinate the changeover, the banks, the producers of bank notes and coins and trade associations of all kinds.

The UK faced all those issues and it would be surprising therefore if British experience were not relevant.

THE NATURE OF THE UK CHANGEOVER

3. The UK Government's decision to decimalise in 1971 was announced in March 1966 - almost five years in advance of what later became known as D Day (for Decimal Day), 15th February 1971.

Further details were given in December of the same year by which time most aspects of the Government's intended system were known. The old pounds/shillings/pence system (£sd) with 20 shillings in the pound and 12 pence in each shilling would be replaced by a decimal pound/pence system (£p) with 100 new pence in the unchanged pound sterling and a halfpenny as the lowest value coin in circulation. (The new penny would be worth almost two and a half times the old one).

This system followed the majority recommendation of a Committee of Inquiry under the chairmanship of Lord Halsbury which had consulted widely for over one and a half years. The values and specifications of five of the six decimal coins were known. The specification of the sixth coin (50 pence) was announced in 1969.

There would be a changeover period after D Day when both old and new currencies would be legal tender but one of the tasks of the Decimal Currency Board, set up to facilitate the transition, would be to keep this awkward period as short as possible, making full use of the preparatory period.
4. Table 1 lists the £sd coins circulating in 1966 and the new decimal £p coins. In summary, two coins were demonetised well before D Day; 5p and 10p coins with identical values and specifications to those of the old shilling and two shilling pieces gradually replaced those coins from early 1968; a 50p coin with identical value replaced the £sd ten-shilling bank note in 1969.

Only three new coins - 1/2p, 1p and 2p became legal tender on D Day although people were already familiar with them through training programs and presentation packs as well as publicity material.

Two £sd coins (the old penny and a threepenny piece) were demonetised at the end of the changeover period. One - the £sd sixpence - remained legal tender until 1980 but despite its popularity in the £sd system declined rapidly in use from D Day. The pound sterling was unchanged.

5. Several comparisons are important:

(i) The UK had to learn to count money decimally (i.e. in terms of multiples of ten) instead of - for small sums - a mixture of twelves and twenties and tens. All members of the European Union count money decimally.

(ii) There were nevertheless close links between the old and new systems and their coinages so it was possible to introduce the new coins gradually and to operate a system of dual currency working during the changeover period which minimized problems.

In the European Union all bank notes and coins will be changed, the values of the new in relation to the old will not be easily memorized and cash handling will be more difficult in the changeover period.

(iii) The need to convert or replace many thousands of mechanically operated cash registers in shops, as well as other machines which recorded non-decilially and slot machines, tended to dominate UK planning as it had in other Commonwealth countries.
In the European Union the machine problems, though formidable, will be very different. All cash registers record decimally but bank and other machines operated by plastic cards are a special problem.

(iv) There was by 1966 little or no objection to currency decimalisation in UK. There had been strong differences of opinion on which system to adopt (the one based on the pound or one based on a new unit worth ten shillings/50p as in South Africa, Australia and New Zealand) but once Parliament had endorsed the Government's decision for the pound system there was general readiness to co-operate in making plans for a quick and smooth transition.

General attitudes in the European Union may be different and less welcoming.

(v) By mid-1967 (three and a half years before D Day) when the UK Parliament agreed the pound system and the supporting coinage, almost all significant elements in the system were known and remained unchanged. This provided a firm and necessary basis for planning and the commitment of expenditure.

The European Union is a long way from this planning certainty: the name of the minor (and major?) unit of currency, the denominations and specifications of bank notes and coins, the general pattern of the changeover and the organizational and accountability arrangements for it remain to be agreed, and some aspects will be controversial.

THE CHANGEOVER PERIOD

6. Originally a changeover period of as long as one and a half years seemed possible in the UK but the Decimal Currency Board, charged to keep it short, became increasingly convinced on the basis of consultations that it would be very short.

The length (as in other Commonwealth countries) was not fixed in advance of D Day.

Although it was not legally ended for six months, for all practical purposes it was over much more quickly. The Fourth Annual Report of the Decimal Currency Board states that by Friday 19 February (5 days after D Day) "the UK was already, for practical purposes, a decimal country". The UK came close to a "big bang" changeover.
## Table 1
BANK NOTES AND COINS IN USE IN BRITAIN BEFORE AND AFTER D DAY

<table>
<thead>
<tr>
<th>£sd system (1966)</th>
<th>£p system (1971)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(12 pence = one shilling</td>
<td>(100 new pence = £1)</td>
</tr>
<tr>
<td>20 shillings = £1</td>
<td></td>
</tr>
<tr>
<td>£1 bank note</td>
<td>no change</td>
</tr>
<tr>
<td>10 shilling bank note</td>
<td>equal to 50p coin</td>
</tr>
<tr>
<td>2 shillings and sixpence (half crown)</td>
<td>equal to 10p coin</td>
</tr>
<tr>
<td>(not a sensible coin)</td>
<td>equal to 5p coin</td>
</tr>
<tr>
<td>2 shilling coin</td>
<td></td>
</tr>
<tr>
<td>1 shilling coin</td>
<td></td>
</tr>
<tr>
<td>sixpence (6d)</td>
<td>equal to (two and a half pence)</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>threepence (3d)</td>
<td>no exact equivalent</td>
</tr>
<tr>
<td>penny (1d)</td>
<td>no exact equivalent</td>
</tr>
<tr>
<td>halfpenny (usefulness eroded by inflation)</td>
<td>2p (4.8 old pence)</td>
</tr>
<tr>
<td></td>
<td>Ø1p (2.4 old pence)</td>
</tr>
<tr>
<td></td>
<td>Ø(1.2 old pence)</td>
</tr>
</tbody>
</table>

**NOTES**

(1) The 50p coin was introduced in 1969 in place of a 10 shilling bank note and was used as a 10 shilling coin until D Day.

(2) The 10p and 5p coins were introduced in 1968 and used as 2 shilling and 1 shilling coins until D Day alongside the £sd coins from which they differed only in the designs on them. 2 shilling and shilling coins continued after D Day as 10p and 5p coins.

(3) The popular £sd sixpence was worth exactly two and a half new pence and was used as a coin of that value from D Day, but no decimal coin was issued and, as an awkward decimal value, the old coin rapidly declined in use from D Day. It was not demonetised until 1980.

(4) Coins below "sixpence" (two and a half new pence) had no equivalents in the other system. The 3d and 1d were demonetised after the changeover period. The 2p, 1p and halfpenny were the only unfamiliar coins introduced on D Day.

(5) The £sd "half-crown" and halfpenny were not needed in the decimal system and were demonetised in 1969.

(6) Since decimalisation, further changes have been made - a £1 coin has replaced the bank note; a 20p coin has been introduced; the 5p and 10p coins have been reduced in size; and the new halfpenny has been demonetised.

1The crown (five shillings) was not in day to day use, being by then largely a commemorative coin. Interestingly it started in the 16th century as a gold coin - an
The banks changed to decimal working on D Day and from then onwards all cheques had to be in the new system. Government departments and the Post Office did the same as did big business organizations. Given this powerful stimulus other organizations saw little advantage in holding back.

Practical and commercial pressures pointed to a quick change. Once "monnaie scripturale" was decimal, "monnaie fiduciaire" followed quickly.

7. It is not easy to see how a changeover period can be avoided in the European Union, despite its problems, and to attempt to fix its length in advance would be risky.

Many machines and other devices will have to operate in "old money" until the equivalent of D Day and they cannot all be changed overnight. For reasons good or bad not all smaller businesses will be fully prepared and both they and members of the public will have large amounts of old money which they must be allowed to spend.

The length of the period will be determined by the rate at which businesses large and small choose to change.

When people are paid in the new money and are given change in new money as they visit shops where prices are in new money, they will not draw old money from their banks. Banks cannot refuse new money to businesses and the public as soon as they want it.

Sensible use of a long preparatory period, stimulated by careful publicity, will gradually make realistic forecasts possible but there will always be some uncertainty. A safe assumption is that the longer the preparatory period is the shorter the changeover period will be.

ALTERNATIVE CHANGEOVER PATTERNS

8. The changeover pattern adopted in UK and other Commonwealth countries - a preparatory period, a D Day and a changeover period of dual currency working - is not necessarily the only one.

adaptation of the French ecu a la couronne.
It has been suggested that, because of the difficulties of dual-currency working in a gradual changeover, it might be preferable to plan for two quick changeovers separated in time: the first for 'monnaie scripturale' (in effect accounting and inter-bank transactions) and the second for 'monnaie fiduciare' (cash transactions).

9. Apart from reducing the adverse effect of dual-currency working, this changeover pattern would permit an early start to be made for monnaie scripturale operations; there would be no need to wait for the production and distribution of bank notes and coins. Another argument for the separation between monnaie scripturale and monnaie fiduciare is that the first big bang would help in the educational and publicity program for the second one. Planners and trainers could concentrate their efforts on each changeover in turn instead of having to do everything at once.

10. The double big bang pattern, despite its attractions, would impose difficulties on banks and businesses - largely because the separation of monnaie scripturale and monnaie fiduciare cannot be complete.

For some organizations accounting and book-keeping in one currency and dealing in cash in another will not be easy. Some might prefer a simultaneous changeover. Additional transitional work will be necessary.

For example, if people and small traders are allowed to continue writing cheques in old money they will wish to receive bank statements which give not only the total balance but also individual items in that statement in old money - or in both old and new. The same will be true of bills from suppliers of goods and services.

Statements of salaries and wages, social security payments and pensions will presumably have to be in old money - or old and new - so long as goods and services are priced in old money. Apart from the additional accounting work of giving two amounts (in accordance with an official or even statutory conversion table ) some organizations may argue that until they can re-think their selling prices in neat, attractive new money terms then they are not making the most of the single currency.

And so long as they are trading in old money, traders will wish to submit tax, VAT and other necessary monetary information to Government in old money -thus necessitating conversion work - and a possible source of mistakes and complaints.
permissible seems sensible but to oblige people to take it would pose unacceptable problems. People tend to think of money in terms of the familiar bank notes and coins they use everyday. There would be problems in educating them to translate their daily transactions into a different form.

12. The Interim Report of the Expert Group on the Changeover to the Single Currency, published in January 1995, presents the practical and operational problems of a two-stage introduction of the ecu. The proposal is to confine the first step to a changeover for the monetary and banking sector whilst leaving relations with customers, whether business or private to remain in "old money". This seems wise, despite the heavy volume of conversion work for banks and the risk of disputes with customers. There would, of course, be legal difficulties. Companies could, if they wished, opt to deal with banks in ecu but their dealings with customers would still be in old money.

HOW COMMON MUST THE COMMON CURRENCY BE?

13. In the UK it was always clear that whatever decimal system was agreed by Parliament must be exactly the same throughout the United Kingdom. In the European Union there is still room for debate about the extent to which national variations might be desirable particularly perhaps in the names and designs of banknotes and coins. Chapter One discusses the scope for national variations. It concludes that to maximise the benefits of a single currency the basic system, nomenclature, banknotes and coins should be as near uniform as is politically acceptable but that there is a need for considerable delegation to member states on the way the system is introduced.

THE "ASSOCIABILITY" PROBLEM

14. Because of the close relationship - the ready "associability" - between old and new currencies, the period of dual-currency working in UK shops from D Day could be simplified in ways which will not be practicable in the European Union.

The practice urged on retailers large and small by the Decimal Currency Board was that
they should operate from D Day in one currency or the other and not in both.

They should be either £sd shops or £p shops. This was possible because currency in multiples of two and a half new pence (six old pence) was the same value in both establishments. Coins and notes of two and a half pence or higher value were usable in both £sd and decimal shops. The difference was that £sd shops (rapidly declining in number) gave small change in old money; decimal shops gave the new halfpenny, penny and twopence coins in small change.

This approach to cash handling was widely publicized in general publicity and in a booklet issued free to all shops by the DCB with the help of the banks. Shops did not need two tills, one for £sd and one for £p. Nor was it regarded as necessary or sensible for retailers to use a conversion table to assess the value of those amounts which did not translate exactly.

15. The approach to cash-handling in the European Union will necessarily be different. It will be unclear for some time which, if any, amounts in the old currency and coinage will convert exactly and neatly into the new single currency. Careful research will be needed into the best ways of dealing with the inescapable dual-currency changeover period - perhaps involving practical tests by applied psychologists as well as discussions with retailers. This analytical work will have to be done country by country.

16. Chapter 2 describes the "associability" issue more generally, particularly as a useful guide to familiarizing the public with new money and price conversions. It concludes that "associability" for these purposes may be less valuable than was assumed both in other Commonwealth countries and in the UK. Conversion table were not consulted as widely as expected and dual-price tickets on items for sale (never compulsory) quickly disappeared.

LEGISLATIVE ASPECTS

17. The dual currency period presents legislative problems not only for cash-handling but more widely for the conversion of accounting records of all kinds including bank accounts and cheques.

These problems are likely to differ from country to country so they too must be analyzed.
and resolved nationally in the European Union.

Complex issues arise. Chapter 3 describes some of the issues which arose in the UK currency decimalisation.

Of equal importance to the determination of situations for which clear legislative provision had to be made was the determination of those which were more sensibly left to organizations to settle for themselves.

For example, the "sixpenny multiples" advice described in paragraph 14 above had no legislative backing; nor had the most commonly used conversion table - The Shoppers Table - which was intended as a guide to the repricing of goods and services and to help the public to grasp the relationship between old and new money. Chapter 3 describes both the Shoppers Table and its uses and the Banking and Accounting Table.

THE ORGANIZATION AND ACCOUNTABILITY FOR THE CHANGEOVER

18. Throughout the whole of the preparatory work for UK decimalisation the accountability and organizational arrangements were clear.

The 1961/63 Committee of Inquiry - the Halsbury Committee - had to investigate issues and make recommendations to the Government on the decimal system and the changeover pattern. Thereafter the responsibility for final decisions rested with Ministers through the Treasury.

Once the decisions were taken, responsibility for facilitating the introduction rested with the Decimal Currency Board.

Accountability and organizational arrangements are more complex in the European Union. All participating states and their Ministers and Parliaments are involved as well as the Commission and the European Monetary Institute.

But it is essential that accepted and authoritative arrangements are made and that these accountability matters are clarified and agreed early. There should also be full and open consultation by an accepted central authority which may or may not mirror the UK Decimal Currency Board.
It is important that similar bodies be established in each member state with full Government support because changeover issues (legal, machine, governmental, banking, cash handling and publicity) will vary. The operation must be decentralized as far as is practicable.

THE UK DECIMAL CURRENCY BOARD

19. The UK Decimal Currency Board (DCB) is not the only model for an organization to steer the move to a single currency but its work proved valuable in the UK and similar bodies were valuable in Australia and New Zealand in their 1966 and 1967 changeovers from £sd to decimal money. It may be useful therefore to describe the status and role of the DCB in some detail.

20. The decision to have a DCB was announced by the Government in March 1966 and appointments were announced about the time details of the proposed system were given in December of that year (paragraph 3 above).

The Board began work early in the following year and remained an advisory body until it was given statutory status in the Decimal Currency Act of 1967.

The ten members were not civil servants and although together they had direct experience in the main areas affected by the changeover (central and local politics and administration, banking, business, accountancy, engineering, wholesaling, retailing, transport, trade unionism, consumerism, teaching and journalism) they were picked for their individual abilities not as representatives or lobbyists for particular groups. They were to take an informed, objective view of problems.

The Chairman - Lord Fiske - had been Labour Party leader of the then Greater London Council with a distinguished career in public service. The Deputy Chairman - Lord Erroll - had held senior Cabinet posts in Conservative Party governments and had senior business posts. Lord Halsbury, chairman of the former Committee of Inquiry, was also a member. There was a "Technical Member" because of the wide machine issues. During its life the Board built up a strong team spirit. Members were only part-time and given a modest fee.

21. The full Board met roughly once each month and there were on average also about
three committee meetings every two months to deal with machine problems, cash-handling problems and publicity. Although the DCB could by law be given directives by the Treasury, this power was never exercised. Senior Board staff consulted informally and openly with Treasury contacts. Each year the DCB had to present a report to the Treasury which that department must place before Parliament. It had a great deal of independence, its role essentially being to facilitate a speedy and efficient transition.

But the DCB had no powers to direct organizations or individuals to act in certain ways; it worked through consultation, co-operation and persuasion. When policy decisions were required on aspects of the decimal system (for example on the exact date and name of D Day, the specification of the 50p coin, the dates of coinage changes, the case for compensation, the ending of the changeover period) the DCB made recommendations to Treasury Ministers.

The DCB staff were civil servants and numbered 52 at the peak in 1970/71. They were chosen from a variety of departments and the work-load was heavy.

22. The terms of reference of the DCB as set out in the Decimal Currency Act of 1967 are listed in Table 2. The actual work fell into the following categories which overlap in time:

(i) Building contacts with interested groups throughout the economy to identify common problems and the needs for central guidance or legislation.

(ii) Making recommendations to the Government through the Treasury on remaining uncertainties about the system.

(iii) Co-operating closely with the Treasury, the Royal Mint and the banks on legislative and other needs and assisting Ministers to steer legislation through Parliament.

(iv) Co-operating with machine interests to find cost-effective ways of converting or replacing machines affected.

(v) Stimulating managers throughout the economy to identify and resolve their own problems - starting with Government Departments and big business, moving on to retailers and other cash-handlers, then to small shops and other small businesses.

(vi) Giving talks and issuing reference booklets, films, exhibition stands, newsletters and
TABLE 2. THE FUNCTIONS OF THE DECIMAL CURRENCY BOARD

The functions given to the Board in the Decimal Currency Act, 1967, are in essence those which it already had as an advisory body - couched in legal language and with the addition of a specific reference to machines, which in the early planning period were assumed to be far greater significance in shaping the changeover than was to be the case in practice:

'5 - (1) The functions of the Board are to facilitate the transition from the existing currency and coinage provided for by this Act, and in particular

(a) to examine, in consultation with such organizations and persons as the Board consider appropriate, problems involved in the transition;

(b) to furnish information and advice about the new currency and coinage, and to publish, whether by advertisement or otherwise, such information as the Board think useful for familiarizing the public with it and its relation to the existing currency and coinage;

(c) to promote arrangements for the adaptation or replacement of commercial and other equipment designed to record or calculate in the existing currency or to be operated by the existing coinage;

(d) to receive and consider, with a view to such provision (if any) as may hereafter be made by Parliament for the payment of compensation in special circumstances, representations with respect to expenditure or loss incurred or to be incurred by particular persons or classes of persons in consequence of the changes;

(e) to make investigations and surveys for obtaining information relevant to the exercise of any of the functions of the Board.'

Point (d) was later deleted in the Decimal Currency Act, 1969, following a Board recommendation on compensation policy.

(vii) Organizing publicity campaigns to prepare the general public for coinage changes and then for D Day itself - including extensive newspaper and TV advertising and the mailing of a booklet with conversion tables to every household.
(viii) Handling a growing number of letters and telephone calls about the changeover.

23. By law, the Board was enabled to make "investigations and surveys" to obtain necessary information. This ability was widely used.

Advertising agents were selected as early as 1967 and arranged periodic market research studies into the awareness and preparations of both the business community and the public. These were essential in directing and adjusting continuing publicity work.

Operational research experts were commissioned to study patterns of coin circulation and to estimate the number of new low value coins needed by D Day.

Applied psychologists were commissioned to advise on the ease with which people might accustom themselves to different coin shapes for the 50p without confusion with other coins. They also advised on the appropriate layout for conversion tables. All these studies not only helped to smooth the changeover but also had financial benefits.

THE COST OF THE CHANGEOVER

24. The total cost of the UK changeover is not known. No-one needed to know once the decision was taken that the costs should lie where they fell with no compensation from the Government beyond normal tax-relief for business expenses.

The Government of course paid for minting costs, the DCB and its publicity, and Government departments’ own changeover.

The banks had heavy costs in storing and distributing coins in addition to their own changeover expenditure. Retailers faced high costs on machine conversions, repricing, dual-pricing, conversion tables and staff training. All businesses had some accounting, machine, repricing, training and stationery costs.

The 1961/63 Committee of Inquiry regarded most expenditure other than that for machine conversion, minting, the bank high-speed changeover and publicity as "non-measurable". (The figures estimated for the "measurable" expenditure were highly speculative).

It was also impossible to measure the benefits of the change. The Government policy
was that a general scheme of compensation was not appropriate and on DCB advice ruled out compensation even for "special cases". Expenditure on business machines, improvements generally and staff training are incurred constantly and it can be a wasteful academic exercise to attempt to isolate that which is solely attributable to one operation.

A Government compensation scheme for machine costs (like those in South Africa, Australia, and New Zealand) risked putting the operation into a rigid framework, lengthening the changeover period and removing the incentive to find cost-effective solutions to the problems. The absence of a compensation scheme combined with the long preparatory period was a significant contributory factor to the speed and success of the UK changeover.

25. One fact dominated thinking about costs. The business community wanted the change to decimal currency and it was by 1966 universally accepted that the long term and continuing saving from it, although non-measurable, would greatly outweigh the once-and-for-all changeover costs.

It is interesting that the same argument is used in the May 1994 report "Preparing the Transition to the Single Currency" by the Association for the Monetary Union of Europe - "The single currency remains a priority objective, since the benefits of the change to European cross-border trade and economic growth will be permanent. They will be greater than the once-and-for-all cost of the change, while the cost of doing nothing would be much higher."
Chapter One

THE SCOPE FOR NATIONAL VARIATIONS IN THE DESIGN AND INTRODUCTION OF THE COMMON EUROPEAN CURRENCY

INTRODUCTION

1. The commitment to a single currency for member states of the European Union which meet the convergence criteria and have not negotiated an 'opt out' is clear. But a great deal has yet to be decided about both the currency system itself (nomenclature, denominations, specifications and designs of banknotes and coins) and also the method of introduction (timing, gradual or 'big bang', cash handling issues, the roles of the centre and of participating states).

This chapter considers how far the pattern should be a standard one and how far variation might be acceptable. It is based on a reading of existing reports and the practical experience of UK currency decimalisation. Because it has involved no consultation within member states and sectors of the economy affected by the changeover, views expressed must be regarded as personal.

BENEFITS OF A SINGLE CURRENCY.

2. This is not the place to debate all the economic and political pros and cons of a single currency but the issue of 'subsidiarity' has to be considered in relation to the perceived benefits. These are persuasively set out in the article "Porquoi la monnaie unique? Comment?" by Christophe Bourdillon in the 28th issue of the journal ECU published in August 1994.

The case can be briefly stated as follows. The economic stability of the European Union and its ability to control inflation and to compete in World Markets will be strengthened. Not only will fluctuating exchange rates disappear (which could be achieved solely by the
'freezing' of those rates) but there will no longer be barriers to internal European trade because of the inconvenience and cost of currency exchange. For business and for customers prices will be universally recognised and competition will be promoted. Indeed, the benefits of an economic community cannot be maximised so long as a dozen or more different currencies are in use inside it.

Ordinary people and small businesses without international links benefit through the expected boost to the economy, cost reductions and spurs to competition. On an immediate practical level the increasing number of people who travel to other member states on holiday, as well as on business, will no longer face the inconvenience of buying different currency whenever they cross a border. They will be able to judge prices and make payment or count change without difficulty.

NATIONAL PRESSURES

3. We have to recognise that people become attached to their own national and long-established currency systems and the associated nomenclature, bank notes and coins. These are part of national history and identity. Some people will even see the move to a common currency as an erosion of their nation's status and will express such views through their elected representatives and the media.

The actual changeover process will also be inconvenient and costly (even though the benefits should quickly outstrip the costs). Well judged publicity can help counter such doubts but it is unlikely to eliminate them.

4. The logical way ahead and the most likely to achieve all the benefits of a single currency is undoubtedly to introduce a completely uniform system with identical bank notes and coins everywhere.

It must be for central bank governors and Ministers to decide whether this ideal course should be modified, perhaps conceding minor variations to meet national wishes in the interest of ensuring rapid progress towards achievement of the main benefits.
A great danger is that reluctance to face up to remaining undecided elements of the single currency system and to take decisions about them will hold up preparatory work which, unavoidably, will be long and detailed. If the benefits of single currency are accepted, secondary matters, however politically difficult and emotive, should not be allowed to delay attainment of them.

5. Important decisions have yet to be taken. There are some misgivings about the name of the major unit. No agreed name exists for the minor unit, its hundredth part. Bank note and coin denominations, specifications and designs have to be settled. The general shape of the changeover must be settled. Many detailed but important questions have to be answered about expression of amounts, legal issues, cash handling, banking, and machine problems.

6. This paper assumes that the denominations and general specifications of bank notes and coins (sizes, shapes, metal content) will be the same everywhere. Unless this is so, single currency has little meaning. But there is room for some debate about nomenclature and designs on notes and coins.

NOMENCLATURE

7. The ecu has a long and distinguished numismatic history but many of those who have assessed money values in, for example, francs, marks or pounds throughout their lives will perhaps be loath to accept it as a currency unit - particularly perhaps in non-francophone countries.

It is worth considering whether, provided a basically uniform currency system is chosen, it matters if countries select their own names for major and minor units. For accounting purposes money sums would be the same everywhere. Even prices in shops would in essentials be the same.

But we presumably need bank notes and coins to be legal tender everywhere and they must have names and designs which are readily accepted everywhere. At least in the
early months shop staff and the public cannot be expected to recognise twelve or more differently designed and differently-named currencies. We surely want to avoid the need for exchanging money at borders or for countries which have many overseas visitors having to arrange regular 'repatriation' of currencies.

8. There nevertheless remains the problem of choosing names and designs on bank notes and coins which will be acceptable to all participating states. Ecu already has a European status. It can be interpreted as 'European currency unit' in many states. And it is conveniently short. It is doubtful whether any word other than 'ecu' would be accepted more readily - certainly not the name of the currency unit of any one member state.

'Europa' is a possibility but, despite its obviousness and its roots in European mythology, it is awkwardly polysyllabic. 'Cent' is the logical name for its hundredth paret and it was adopted without serious dissent in South Africa, Australia and New Zealand (as were 'Rand' for the South African major unit and 'Dollar' for the major units of Australia and New Zealand).

It may be that citizens are more adaptable in money matters than politicians sometimes fear - and a European Commission survey suggests that already almost 60% of the sample surveyed in the 12 states taken together are either strongly in favour or somewhat in favour of the adoption of the ecu as the single currency. It does not greatly matter if people in everyday shopping choose to call the major or minor unit by other 'nicknames'. But there must be official names.

9. The urgent need is to remove lingering doubts about both major and minor units and the denominations of bank notes and coins which will be needed for cash transactions. (In a decimal system, the range of denominations is clear; the remaining doubt is where the borderline should lie between bank notes and coins).

The basic specifications for bank notes and coins must depend on recommendations by the central banks through the EMI and by Mint directors. Valuable work has been done but further consultation with cash-handlers, machine interests, organisations
representing the blind - and perhaps practical tests with members of the public - is probably needed.

Decisions on names, denominations, specification of banknotes and coins and the designs on them are the essential preliminaries to producing and distributing those notes and coins. Together these constitute the 'critical path' - the longest and heaviest of the many preparatory tasks of the changeover to a single currency for cash transactions.

10. A currency changeover, once basic policy decisions are taken, is a matter of painstakingly detailed work. In Britain the Decimal Currency Board spent time early in the preparatory period deciding how amounts of money should be expressed in printing, writing and speech. A reference booklet was published on this subject and was in great demand.

The topic may seem trivial but there is a need to decide such things as what symbol or letter should be used as an abbreviation for major and minor units; whether chosen letters should be in upper or lower case and appear before or after the name; how cheques should be written; whether to use a decimal point or a comma or a dash.

It may be argued that these points are best left to member states or even (less convincingly) to individual organisations and that resolving them is not of immediate concern. But how amounts of money are expressed is important in the redesign of stationery, in training and publicity material and in the revision of school text books. A decision on whether such matters are to be left to member states - with some consequential but perhaps acceptable risk of public confusion - must not be long delayed.

DESIGNS ON BANK NOTES AND COINS

11. The arguments for and against standard European-wide designs are similar to those on nomenclature. There will be opposition to the loss under a uniform system of such national indicators as the heads of monarchs, and the existence of many different European languages is a constraint on wording.
A superficially attractive course would be to have one side of bank notes or coins given over to a European design and the other to a national design, despite training and publicity problems. On the other hand, once a currency is established, people probably recognise bank notes and coins by their expected size, shape, colour and 'feel' and look closely only if they suspect forgeries so the risk of lasting serious confusion may not be high. Bank notes and coins of 'other countries' will soon accumulate in tourist countries and repatriation would be wasteful. Does it really make sense to have over 12 different designs?

12. For bank notes a compromise which should cause no problems would be to have them largely standard Europe-wide but with small discrete national symbols. This fairly ready identification of the country of origin might even encourage commendable competition to produce notes of the highest technical quality! Plainly with a standard European design it would be necessary to keep the wording on notes and coins to a bare minimum with Arabic numerals prominent.

The designs themselves would have to be as simple as is consistent with security needs and any portraits confined to figures in the world of the arts rather than national heroes. These are matters likely to excite controversy.

THE IMPLEMENTATION OF THE AGREED SYSTEM

13. Although this paper argues for the maximum acceptable degree of uniformity in the single currency system and the bank notes and coins which will be its manifestation in everyday life, there is an equally strong need for maximum decentralisation and national discretion in the system's introduction.

It is not possible to mastermind the changeover from one centre. Legal issues will differ. Government department issues will differ. The differences between the ecu currency and existing currencies and the resulting problems for cash-handling, staff training and public education will differ. The extent of coin -or bank note - operated machine problems will differ. Banking problems will differ.
14. Clearly there has to be a central authoritative coordinating body to set the general framework of the changeover and to discuss and disseminate suggestions of good practice but there must also be national currency boards to explore national issues in depth and to co-operate at chairman and lower levels with the central team. The time has surely come to establish these national study groups to complement the work of the central group.

One issue worth examination is whether it would be practicable for countries to decide for themselves, subject to a very broad central guidance, on whether to aim for a big bang changeover or a rather more gradual one.

CONCLUSIONS

15. The main conclusions are:

(i) To obtain full benefit from a common currency, the system and its supporting nomenclature, bank notes and coins should be as near standard as possible.

(ii) There is a need to seek agreement quickly on such outstanding matters if there can be confidence in introducing a common currency smoothly before the year 2000 for day to day cash transactions.

(iii) There is scope for maximum delegation to member states on the introduction of the chosen system.

(iv) In addition to a central co-ordinating body there is a need for suitably empowered study groups in member states.

(v) Complete openness and close co-operation are desirable amongst the many interests affected by this important change both centrally and nationally.
Chapter Two

THE CHANGEOVER TO A EUROPEAN CURRENCY UNIT: THE SIGNIFICANCE OF THE "ASSOCIABILITY PROBLEM".

1. Before the changeover to decimal currency in Britain there was much discussion about what Lord Halsbury's Committee of Inquiry called "the associability problem" - the readiness with which the general public would adapt themselves to the new system and the extent to which this would be facilitated by keeping close links between the £sd system and coinage and the new system and coinage with fairly easy conversion of prices.

This paper attempts to analyze the significance of "associability" and its relevance to a move to a common European currency. Table 1 showing the UK coinage before and after the changeover (see above) might be helpful.

ASSOCIABILITY IN THE UK DECIMAL CURRENCY CHANGEOVER

2. During the 1960's few people questioned the need to decimalise the UK currency but there were prolonged and heated debates about which decimal system to adopt. It was largely the inability to agree on a system which delayed decimalisation. This debate centered eventually on the differences between the £-new penny (plus half new penny) system recommended by the majority of the Halsbury Committee and a system based on a new major unit worth 10 shillings (50p now) in £,s,d. The "10 shilling" system had been chosen by three Commonwealth countries which decimalised from £,s,d, before the UK (South Africa, Australia and New Zealand).

"Associability" arguments loomed large in the choices made in those countries and also in the minds of the two members of the Halsbury Committee who wrote a minority report favouring a "10 shilling" system.

Retailers, other cash handlers and consumer groups pressed hard for such a system in
Britain: it would allow more of the familiar £sd coins to remain in use with neat decimal values and would make everyday "shillings and pence" amounts fairly easily recognized in their decimal form.\(^2\) Conversion sums would be simpler. There would be no need for a new halfpenny (held to be illogical in a decimal system).

3. The chosen £ system, of course, also had "associability" advantages, not least the fact that sums expressed in pounds needed no change whatsoever, so the difference was one of degree. (Other arguments related to the retention of the £ as an international currency and the desirability of providing a lasting system against the erosion of inflation led the majority of the Halsbury Committee, and the Government, to select the £ system).

4. In their planning the Decimal Currency Board took full advantage of the "associability" merits of the chosen system. Two of the decimal coins (5p and 10p) had exactly the same values and general specifications as the £sd predecessors and were introduced with decimal designs almost three years before D. Day; a 50p coin was introduced well over a year beforehand and was used as a 10 shilling coin; only the three low value decimal coins with no exact £sd equivalents appeared on D. Day for the first time. (They were available as souvenir sets and for training purposes earlier).

Publicity for all the changes was extensive and conversion tables, which were fairly easily memorized, were widely distributed and displayed. Copies were included in a booklet which was sent to every household.

ASSOCIABILITY AND THE ECU

5. It is worth asking, in the light of experience and with the benefit of hindsight, how important "associability" really is. When member states of the European Union move to a common currency there may be little or no easy "associability" between the old and the new. It is impossible to devise a common system which for all participating countries offers neat, exact conversions of existing major units, bank notes and coins. The names of both the major and minor units (the 100th part) might well be unfamiliar.

Conversion tables may not be easy to memorize. The situation will be like the one we

\(^2\)It has to be remembered that over 30 years ago the £ had about 10 times its 1993 purchasing power so most day to day cash transactions did not involve the major unit.
face when going on holiday or to work in a foreign country - with the added complication that for a time during any necessary changeover period the familiar notes and coins will still be circulating.

6. All European Union countries count money decimally but for several of them new prices will look very different from the present ones. The ecu will be of higher purchasing power than all major currency units except UK and Irish pounds and its hundredth part - the minor unit - or combinations of it will feature prominently in countries which have become accustomed to dealing only in one unit (Italy, Spain, Portugal, Greece). In most countries the minor unit will therefore assume greater significance and prices in shops will look strangely different. Ecu banknotes and coins will look unfamiliar and will have unfamiliar values. There will, in other words, be a big "associability" problem.

"ASSOCIABILITY" IN PERSPECTIVE

7. Several points are worth stressing:

(i) "Associability" is useful only during the changeover; at best it is a temporary benefit.

(ii) The aim is to encourage people to think and work in the new currency, not convert it constantly to the old. We should look forwards not backwards.

(iii) Experience in Britain and elsewhere shows that, although "associability" offers valuable reassurance in the late preparatory and early changeover periods, people in practice rely on it far less than one might expect.

(iv) People who holiday abroad or take jobs abroad accustom themselves quickly to unfamiliar currency systems. (Members of the European Commission and their families are but one example).

8. Both in discussions about choice of system and coinage and in assessment of changeover difficulties in Britain we probably gave more weight to "associability" than experience shows was necessary.
For everyday cash transactions analysis suggests it might be relevant in two areas: first, judging prices (to see whether an item can be afforded or represents good value for money) and, second, making payment and checking change. But by no means all purchases involve a deliberate conversion sum to judge prices.

Most of our purchases are habitual: for example we always buy, say, 20 litres of petrol and in a supermarket we always buy the same packets of butter, flour, biscuits or eggs. The items are familiar and needed so there is no need for mental arithmetic. If we choose to convert into the old currency - perhaps to check that a shop has not taken advantage of the change to increase prices - then for a time conversion tables will be prominently displayed or there will be dual price labels.

Price changes of some common items will be well publicized in advance - for example newspapers, postage stamps and metro fares. When we have to consider more significant, optional purchases - perhaps clothes or books - there will be more time to check that a price is fair and affordable. We shall quickly develop rough mental yardsticks of value as we do when we go abroad e.g. for the British, £1 is roughly 50 Belgian francs or in Italy 2,500 Lire). Precise conversion will not be necessary.

9. When we pay for purchases in shops, complex arithmetic or conversion sums are never necessary. We simply use clearly marked bank notes and coins as counters - or, more commonly, we hand over a higher value bank note and receive change which we can count up in simple round amounts (20, 10, 5, 2, and 1). Publicity campaigns should ensure that the new bank notes and coins and their values are well known before the changeover day. Similarity of the old coins with their predecessors, which we were able to ensure for three of the UK decimal coins, is of only very temporary significance.

THE PSYCHOLOGICAL IMPORTANCE OF "ASSOCIABILITY" AND IRRATIONAL FACTORS

10. To argue in this way is not to deny all importance to "associability". Obvious links between the old and the new offer reassurance and an understanding that the change is not as great as people might fear. Moreover, if associability is perceived to be important, then it assumes an unsettling importance in the eyes of the public and the media which logical analysis will not easily counter.
In Britain it became closely linked with the fear that changing the currency would lead to price increases which might not easily be spotted.

These factors are of particular importance for the elderly, who do not readily accept changes in the habits of a lifetime, and for people of slender means or failing eyesight. Factors which are not wholly rational may also play a part - for example, people might dislike losing the names of familiar currency units.

In Britain we decided to retain the name "penny" for the minor unit (initially calling it "new penny") despite the fact that it was worth more than twice the value of the £sd penny. This decision may have caused a little confusion but the probably strong adverse reaction to the use of 'cent' (though it is a logical name for the hundredth part of the major unit) was thought to be decisive.

Generalizations can, however, be dangerous. In South Africa, Australia and New Zealand the names of both major and minor units were changed (to Rand and cent in South Africa and to Dollar and cent in Australia and New Zealand.) Perhaps in those countries a desire to break away from the old "imperial" names was held to be significant!

11. There were two other examples during the UK changeover of what might be seen as irrational public and media reaction or undue attachment to "associability". The first came when the 50 pence coin was introduced. This was (and is) a seven-sided coin - an "equilateral curve heptagon" with a constant breadth and thus attractive to slot machine operators. It was chosen after wide research and practical tests by the Decimal Currency Board. It replaced a 10 shilling (50p) bank note.

When the decision for this coin was announced there was little adverse reaction - indeed, a general interest in the unconventional shape. But when the coin first appeared in pockets and purses there was an outburst of complaints partly because of the unfamiliarity and partly because of alleged confusion with 10 pence pieces. The press fed popular prejudice and there were questions in Parliament urging withdrawal. The outcry was short-lived but uncomfortable.

12. The second example came in 1970. There was a very popular £sd silver coin called a sixpence. People liked it and many pressed for it to remain in circulation after D Day as a two and a half pence coin (the exact equivalent in value). Pressure grew so strong in
Parliament and the press that the DCB was asked to prepare a special report on the possibility of agreeing to keep the coin.

The DCB recommended against this because we knew that retailers and the public would prefer to count in twos (using the 2p coin) rather than in units of two and a half. Although the popular sixpence did not cease to be legal tender as quickly as the other old low value £,s,d coins, it very rapidly decreased in use after D.Day. "Associability" can be pursued misguidedly.

CONVERSION TABLES

13. In the preparatory and changeover periods, conversion tables will be essential as a guide for the public to the unfamiliar in terms of the familiar and also for traders in repricing goods and services.

The DCB commissioned work from applied psychologists, involving practical tests amongst shop assistants and the public to determine the best layout and design. The "Shoppers Table " was a list of £sd payable amounts with the nearest corresponding payable amounts in the new coinage - not the exact equivalents because only six old pence and multiples of that amount converted exactly.

It was possible to round down as many amounts as were rounded up in the range to 5p so that, if the table were applied evenly in the conversion of a wide range of price endings, there would be no overall adverse effect on price levels. This table did not have the force of law because strict application could force a trading loss on those who dealt only with a small range of items but it was consistently used wherever possible; competition and publicity given to the table ensured this (See also Chapter 3 and Annexe).

14. We do not yet know how easily present amounts will translate into ecu amounts and the relationship will obviously vary from country to country. It cannot be emphasized too strongly, however, that very careful attention will need to be given in each country to the design of conversion tables and the appropriate ways of presenting them to traders and the public. (Conversion of accounting records and sums of money in law or contracts is another matter; this paper is about "associability" of old and new for the general public in everyday transactions.)
CONCLUSIONS

15. Some general comments on "associability" are given in paragraph 7. The following might now be added in relation to the change to a common European Currency:

(i) The absence of obvious "associability" is likely to become a source of concern to the public in the period before and after the changeover and it will be linked with a fear of price rises.

(ii) Not all the concerns expressed by the public and the media will be wholly rational or predictable, but they will be genuine and must be dealt with sensitively.

(iii) Most concerns will relate to differences between the present and proposed currency systems and coinages in individual member states or the traditions of those states so they will have to be dealt with nationally and not centrally.

(iv) Careful attention will need to be given to the nature and timing of publicity campaigns, especially those about recognition of new bank notes and coins and about conversion tables.

(v) The shorter the period when present and new currencies are circulating together the better it is likely to be for the public. A short, sharp shock may be preferable to continuing confusion.

(vi) European-wide publicity might best be directed initially at fostering a better understanding of the benefits of a common currency in order to develop a favourable climate of opinion for later, more detailed publicity campaigns on the exact nature of the change.
CHAPTER 3

SOME LEGAL AND RELATED PROBLEMS OF THE UK 1971 CHANGEOVER TO DECIMAL CURRENCY

GENERAL

1. Two Acts of Parliament were needed for the UK changeover just as two were needed in Australia and New Zealand. The first UK Act became law in July 1967 and the second in May 1969.

It was not possible to prepare for the change with only one piece of legislation because the basic system and coinage had to be settled before the detailed work about the shape of the changeover could be done by the Treasury and the Decimal Currency Board in consultation with other organisations, especially the banks. Work began about one-and-a-half years before the passage of the second Act on which this paper concentrates.

2. The 1967 Act stated that "on and after the appointed day, the denominations of money in the currency of the United Kingdom shall be the pound sterling and the new penny, the new penny being one-hundredth part of a pound sterling". The appointed day was "such day in the year 1971 as the Treasury may by order made by statutory instrument appoint" - that is by subordinate legislation.

The Act also gave the basic specifications of five of the six decimal coins * and extended the existing power to introduce new denominations by Royal Proclamation, and, for example, to put decimal coins into circulation before the changeover or to allow old £sd coins to remain in circulation afterwards (This was desirable because some old coins had unchanged and acceptable values in the new currency).³

³The specification of the sixth coin - 50p - was recommended later by the Decimal Currency Board and introduced by Royal Proclamation.
The Decimal Currency Board was given statutory authority and its functions in facilitating the changeover were listed. The Act refers to "the transition" but gives no specific authority for a changeover period. The purpose of the Act was to settle once-and-for-all the basic decimal system, the year of the changeover and the role of the Decimal Currency Board so that all organisations could start detailed planning and the Royal Mint could arrange to produce the coins. It would be a powerful stimulus for preparatory work if it were politically acceptable to have similar early, firm decisions for the move to a single European currency.

3. The 1969 Act dealt with special arrangements for banks, with the changeover period, with legal tender, and with some aspects of conversions of amounts from old to new currencies. It was the result of wide consultation and also study of the changeover provisions in the Australian and New Zealand legislation.

BANKS

4. The banks had an immediate "Big Bang" changeover on D Day. They regarded it as impracticable to work in both old and new currencies and the 1969 Act permitted them to close for four days before D Day when they converted all machines and accounts and cleared all cheques in the system. Thereafter cheques along with other bills of exchange and promissory notes were invalid if drawn in old money. The banks also decided that they would not use the new halfpenny in accounting.

The Act gave a conversion table showing corresponding amounts in new pence for amounts in old currency - which became known as the Banking and Accounting Table. This table was by law applied to the conversion of bank accounts and of other bank and Government monetary payment documents issued before D Day but presented for payment afterwards. Another conversion table - the Shoppers' Table - was of much greater practical significance but it did not appear in either the 1967 or 1969 Acts and had no legal base. The Annex gives more information about the Shoppers' Table and shows both that and the Banking and Accounting Table as they appeared in the booklet circulated to all households. Both tables had as many roundings down as roundings up.
with an overall balancing effect.

THE CHANGEOVER PERIOD

5. The changeover period was referred to in the 1969 Act as the "transitional period" and defined as beginning on D Day and "ending with such day as the Treasury may appoint by order made by statutory instrument subject to annulment in pursuance of resolution of either House of Parliament" (The expression "D Day" for Decimal Day was not part of the Act; it was recommended by the Board for popular use and approved by the Government).

The significance of the ending was twofold. First, at the end of the changeover period any old coins not directed to be redenominated as decimal coins were automatically demonetised (in the event, only the £sd penny and three-penny piece were demonetised). Second, any outstanding £sd payable amounts were automatically converted into decimal amounts in accordance with the Banking and Accounting Table.

6. Ending the changeover period did no more than this. There is, for example, no provision in the 1969 Act comparable with that in the 1870 Coinage Act (and repealed from D Day by the 1969 Act) which states that every contract, sale, payment, transaction and so on must be in terms of "the coins which are current and legal tender in pursuance of this Act". £sd contracts and transactions never became illegal; people are free to transact their affairs in old, new or foreign currency as they please.

THE GENERAL APPROACH TO CONVERSION PROBLEMS

7. It became clear to Treasury and Board officials working on the legislation that the law could not specify what should happen in all the circumstances of the changeover. A great deal was best left for reasonable people to settle amongst themselves - aided perhaps by advice from the Board. The amounts of money at stake were generally negligible and commonsense would normally suggest the solution to conversion difficulties.
The law should, it was thought, touch only on those areas where there was a clear legal problem and where the lack of a firm lead could result in time-wasting disputes or unfairness. The most helpful approach was to concentrate not on how to convert amounts of money but how to make payments.

8. For most old money amounts which did not involve payment, exact conversion was appropriate. It would be wrong to use a conversion table for converting a unit price in a contract for the purchase of hundreds of items or a wage rate which had to be multiplied by the number of hours worked; the cumulative effect on the calculated total of roundings which were tiny in themselves could be considerable.

**LEGAL TENDER**

9. The 1969 Act made the new coins legal tender and set new legal tender limits. From D Day "coppers" became legal tender for amounts up to 20p; cupro-nickel coins up to and including 10p became legal tender for amounts up to £5; coins above 10p in value became legal tender up to £10. The Act also provided that during the changeover period £sd coins, decimal coins, and mixed £sd and decimal coins would be legal tender for either £sd or decimal amounts. In effect, the £sd penny was also a "five-twelfths of a new penny" coin and the new halfpenny was also a "one and one fifth of an old penny" coin. Thus, it was always open to a debtor during the changeover to settle an £sd debt in £sd cash - even if the creditor had gone decimal and found it inconvenient to accept low-value £sd coins.

10. In practice, the sensible thing to do was to use old pennies and threepenny bits in decimal transactions in multiples of sixpence (2.5p); only in "sixpenny lots" were the two coinages interchangeable and this was the basis of the Board's advice to cash-handlers and to the public about "mixed money". If coins were always offered in "sixpenny lots" then it was possible for the seller to give exact change, whether he was operating in £sd or decimal.

This concept was not in the legislation because it would have contradicted the basic
British common law principle that a good tender is either the exact amount or a higher amount provided change is not required. It would have been difficult to declare the coins legal tender - but only in certain circumstances for certain transactions. Moreover, the law says nothing about change-giving and it would therefore have been wrong to write a provision in the Act which implied change-giving. And, whatever the legal tender limits, retailers and their customers are in a negotiating situation and a retailer is free to stipulate in advance the coins he will and will not accept. (Inn-keepers and 'common carriers' - an expression which covers some but not all transport operators - do not have quite the same freedom.)

In the event these legal niceties and the apparent gap between the strict letter of the law and the practical advice which was given by the Board, and which was almost universally followed, led to no difficulties. The experience affords an interesting example of how it is sometimes preferable in practical operations to rely on the exercise of common sense instead of attempting to legislate in detail for all eventualities.

The same will be true during the change to a single currency although the exact legal position will vary from country to country and it is unlikely that there will be convenient associability between old and new coinages which facilitates something like the "sixpenny lots" rule.

PAYABLE AMOUNTS

11. References to £sd in legislation were automatically converted to decimal from D Day on an exact basis (one old penny equals five twelfths of a new penny) but references in contracts and agreements were untouched; they need only be altered at the instance and with the agreement of the parties concerned.

The validity of all these contracts was unaffected.

The law concentrated on how money payments should be made - but there was no attempt to deal with every eventuality.

How an outstanding debt was settled was a matter for the parties concerned; conversions on the basis of the Shoppers' Table for cash payment or the Banking and Accounting Table for payment by cheque was recommended by the Board and almost
universally followed in practice. A few people no doubt exercised their right to pay the exact amount in £sd cash during the changeover period but the old coins disappeared so quickly that this soon ceased to be practicable.

12. The Act did, however, make special provision for periodical payments, on the grounds that differences which were trivial in the case of once-for-all debts might well be significant when multiplied by the total number of outstanding payments in a series and thus give rise to disputes and considerable administrative inconvenience for the organisations concerned - banks, insurance companies, building societies, hire purchase companies and so on. It would have been an intolerable burden for these organisations to renegotiate individually with all the payers. The Act therefore permitted - but did not oblige - the payer to convert periodical payments (except wages and salaries) on the basis of the Banking and Accounting Table.

CONCLUSION

13. The 1969 Act was complex. Several special situations not mentioned here had to be dealt with - for example, the existence of many insurance policies based on very small periodical payments of a few £sd pence.

There will be similar special circumstances in European countries which will need close examination. Basic legislation governing monetary matters and legal tender will also differ from country to country. Some of the issues can be resolved only when details of the single currency system and its relation to the national currency are known.

14. Obviously conversion tables will be needed in all participating states and careful attention will have to be given to their legal status, design and presentation.
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ANNEX

CONVERSION TABLES

1. On D Day three new bronze coins came into circulation - 2p, 1p, and 1/2p. The new system was not a 'pure' decimal place system with 100 new pence to the unchanged pound sterling; there was also a new halfpenny - worth rather more than the previous £sd penny. (The existence of a fraction was seen by the critics as a weakness in the chosen system and was one reason why some of them preferred to abandon the Pound and have a new major unit half its value - as happened in South Africa, Australia and New Zealand). In Britain there was a clear need for a coin of lower value than the new penny and it formed an essential part of the system of pricing. The initial minting programme included 950 million halfpenny coins compared with 1050 million penny coins. The halfpenny's existence meant that no old money amount had a corresponding amount in new money different by more than 0.6 of an old penny. Any amount ending in 'sixpence' (old money) or multiples of it converted exactly into new money.

2. The Shoppers' Table, using the halfpenny, was the main conversion table used in the preparatory and changeover periods and the basis of much of the Decimal Currency Board's publicity. It was intended as a guide to traders in the repricing of goods and services and the preparation of dual price labels. For the public it was a general aid to understanding the relationship between old and new money values. It was used not only by the Board but by many other organisations which provided guidance material for the public and staff training; and it formed part of the booklet sent to every household before D Day - as a detachable folded card.

3. In the range of 12 old money amounts up to 'one shilling' (5p) there is an equal number of roundings up and roundings down so that gains and losses balance out (5 up, 5 down and 2 unchanged). If the table is used to convert on an evenly distributed number of old money amounts there is no overall effect; applied to price endings neither buyer nor seller is worse off.
4. There was debate about whether the Shoppers' Table should have legal force. The Board convinced the Government and Parliament that it should not. To oblige traders to reprice on this basis might compel those who deal in low-priced items to accept a loss. There would also be considerable difficulty in administering and policing such a law. Moreover, manufacturers would obviously wish to repackage products, perhaps altering weight or quantity, in order to produce attractive new money selling prices.

5. The Board was convinced - and experience showed this to be the case - that wide central publicity for the Shoppers' Table coupled with the forces of competition would ensure that no organisation departed from that table in repricing without good reason. There is no evidence that decimalisation itself led to an increase in price inflation.

6. The halfpenny remained an essential part of the UK currency for a long time after D Day. It was demonetised at the end of 1984 when the cumulative effect of general inflation had made it useless.

7. One point must be stressed; the Shoppers' Table was not intended to apply to the exchange of coins. For example, 3 old pence was not the same value as one new penny and neither traders nor shoppers were expected to accept the old £sd threepenny piece or the new penny coin as if they were equal.

8. When a single European currency is introduced there will be the same need for conversion tables with an overall balancing of roundings-up and down. If only one table is needed (ie for banking and accounting and well as cash transactions) the arguments for giving a table legal force in certain circumstances will be different but the UK experience may be helpful.

9. The legal status of the Banking and Accounting Table is described in Chapter 3. Both tables are attached to this Annex in the Form in which they appeared in "Your Guide to Decimal Money", the booklet sent to all households before D Day.
<table>
<thead>
<tr>
<th>Old £sd</th>
<th>New £p</th>
<th>Old £sd</th>
<th>New £p</th>
<th>Old £sd</th>
<th>New £p</th>
<th>Old £sd</th>
<th>New £p</th>
</tr>
</thead>
<tbody>
<tr>
<td>2/-</td>
<td>10</td>
<td>4/-</td>
<td>20</td>
<td>6/-</td>
<td>30</td>
<td>8/-</td>
<td>40</td>
</tr>
<tr>
<td>2/-</td>
<td>10</td>
<td>4/-</td>
<td>20</td>
<td>6/-</td>
<td>30</td>
<td>8/-</td>
<td>40</td>
</tr>
<tr>
<td>2/-</td>
<td>11</td>
<td>4/-</td>
<td>21</td>
<td>6/-</td>
<td>31</td>
<td>8/-</td>
<td>41</td>
</tr>
<tr>
<td>4/-</td>
<td>11</td>
<td>4/-</td>
<td>21</td>
<td>6/-</td>
<td>31</td>
<td>8/-</td>
<td>41</td>
</tr>
<tr>
<td>2/-</td>
<td>12</td>
<td>4/-</td>
<td>22</td>
<td>6/-</td>
<td>32</td>
<td>8/-</td>
<td>42</td>
</tr>
<tr>
<td>6/-</td>
<td>12</td>
<td>4/-</td>
<td>22</td>
<td>6/-</td>
<td>32</td>
<td>8/-</td>
<td>42</td>
</tr>
<tr>
<td>2/-</td>
<td>13</td>
<td>4/-</td>
<td>23</td>
<td>6/-</td>
<td>33</td>
<td>8/-</td>
<td>43</td>
</tr>
<tr>
<td>2/-</td>
<td>13</td>
<td>4/-</td>
<td>23</td>
<td>6/-</td>
<td>33</td>
<td>8/-</td>
<td>43</td>
</tr>
<tr>
<td>2/-</td>
<td>14</td>
<td>4/-</td>
<td>24</td>
<td>6/-</td>
<td>34</td>
<td>8/-</td>
<td>44</td>
</tr>
<tr>
<td>2/-</td>
<td>14</td>
<td>4/-</td>
<td>24</td>
<td>6/-</td>
<td>34</td>
<td>8/-</td>
<td>44</td>
</tr>
<tr>
<td>2/-</td>
<td>14</td>
<td>4/-</td>
<td>24</td>
<td>6/-</td>
<td>34</td>
<td>8/-</td>
<td>44</td>
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<tr>
<td>2/-</td>
<td>14</td>
<td>4/-</td>
<td>24</td>
<td>6/-</td>
<td>34</td>
<td>8/-</td>
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<tr>
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<td>14</td>
<td>4/-</td>
<td>24</td>
<td>6/-</td>
<td>34</td>
<td>8/-</td>
<td>44</td>
</tr>
<tr>
<td>2/-</td>
<td>14</td>
<td>4/-</td>
<td>24</td>
<td>6/-</td>
<td>34</td>
<td>8/-</td>
<td>44</td>
</tr>
</tbody>
</table>

This table will help you to check decimal prices against previous £sd prices, but there is no need to learn it by heart. Remember, shops will charge either £p prices or £sd prices, but not both. You cannot use this table to choose whether you pay the £sd or the £p price.

Before using this table you will find it helpful to read the official booklet "Your Guide to Decimal Money".

Remember, the £ stays the same but is made up of 100 new pence.

To check a decimal price, find the amount in the column headed 'New £p', which is printed in bold figures, and the corresponding £sd price will be seen on its left.

If you need to convert an £sd price into the new money, find the amount in the column headed 'Old £sd' and the corresponding price in new pence will be seen on its right.
Banking and Accounting table

The Whole New Penny Conversion Table

<table>
<thead>
<tr>
<th>Old £sd</th>
<th>New £p</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>7</td>
<td>3</td>
</tr>
<tr>
<td>8</td>
<td>3</td>
</tr>
<tr>
<td>9</td>
<td>4</td>
</tr>
<tr>
<td>10</td>
<td>4</td>
</tr>
<tr>
<td>11</td>
<td>5</td>
</tr>
<tr>
<td>1/-</td>
<td>5</td>
</tr>
<tr>
<td>1/1</td>
<td>5</td>
</tr>
<tr>
<td>1/2</td>
<td>6</td>
</tr>
<tr>
<td>1/3</td>
<td>6</td>
</tr>
<tr>
<td>1/4</td>
<td>7</td>
</tr>
<tr>
<td>1/5</td>
<td>7</td>
</tr>
<tr>
<td>1/6</td>
<td>7</td>
</tr>
<tr>
<td>1/7</td>
<td>8</td>
</tr>
<tr>
<td>1/8</td>
<td>8</td>
</tr>
<tr>
<td>1/9</td>
<td>9</td>
</tr>
<tr>
<td>1/10</td>
<td>9</td>
</tr>
<tr>
<td>1/11</td>
<td>10</td>
</tr>
</tbody>
</table>

To convert a sum of money, first convert the largest even number of shillings (multiply by five). Then convert the remainder (this will be an amount between 1d and 1s 11d) in accordance with this table and add the two amounts together.

To convert £32 4s 6d, the steps are:

- £32 remains £32
- 4s becomes 20p
- 6d becomes 3p
- 
- so £32 4s 6d becomes £32·23

But, to convert £32 5s 6d, the steps are:

- £32 remains £32
- 4s becomes 20p
- 1s becomes 7p
- 6d becomes £32·27

Similarly

- £32 14s 6d becomes £32·73
- and
- £32 15s 6d becomes £32·77
Economic Papers

The following papers have been issued. Copies may be obtained by applying to the address mentioned on the inside front cover.


No. 3  A review of the informal Economy in the European Community, By Adrian Smith (July 1981).


No. 6  The bilateral trade linkages of the Eurolink Model : An analysis of foreign trade and competitiveness, by P. Ranuzzi (January 1982).

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No. 37  Schemas for the construction of an "auxiliary econometric model" for the social security system, by A. Coppini and G. Laina (June 1985).
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